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Are Approaches To Teaching And/or Student Evaluation Of Instruction Scores Related To The Amount Of Faculty Formal Eduational Co

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ARE APPROACHES TO TEACHING AND/OR STUDENT EVALUATION OF INSTRUCTION SCORES RELATED TO THE AMOUNT OF FACULTY FORMAL EDUCATIONAL COURSEWORK?

by

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ABSTRACT

The purpose of this study was to investigate if there are correlations among an instructor's approach to teaching, student evaluation of instruction outcomes, and the amount of formal coursework in education a teacher has completed. Three research questions provided the focus for the study: (1) to determine if there is a correlation between the number of formal educational courses taken by athletic training educational program (ATEP) faculty and their approach to teaching; (2) to determine if there is a correlation between the amount of formal educational courses taken by ATEP faculty and their students' evaluations of instruction; and (3) to determine if there is a relationship between faculty's approach to teaching and students' evaluations of instruction.

The population for the study was certified athletic trainers working as full-time faculty in ATEPs in the State of Florida. Data were generated using all eligible faculty from 10 of the 13 universities in Florida that offer Athletic Training Educational Programs. The study included faculty who teach in large and small ATEPs. Faculty from public and private, large and small universities were also represented. The faculty completed questionnaires that included demographic information, the Approaches to Teaching Inventory (ATI-R) and the Students' Evaluation of Educational Quality (SEEQ) questionnaire.

Based on the research findings, there is clear evidence that there is a lack of uniformity among ATEP faculty in the area of formal exposure to pedagogy and curriculum. 17.6% (n = 3) of respondents earned a bachelor's degree in physical education and 18.8% (n = 3) of respondents earned a master's degree in education, health education, or physical education. Of the 77.8% (n = 14) of respondents who completed or were in progress with a doctoral degree,

42.9% (n = 6) degrees were related to education. Faculty reported completing a mean of 9.25 courses related to education (SD = 7.39). The number of educational courses taken ranged from 0 to 25 courses.

The study demonstrates that there is a correlation of large effect size between the amount of formal educational coursework and the SEEQ subscale value of "Assignments/Readings." In addition, the "Assignments/Readings" and "Learning/Academic Value" subscale scores on the SEEQ were significantly higher when instructors had completed more than 10 educational courses.

The study found moderate and large correlations and medium and large effect sizes between the scores of 7 of the 8 remaining SEEQ subscales and the number of education courses taken by faculty. In addition, there was a moderate correlation and medium effect size between the total score of the SEEQ and the number of education courses taken by faculty. Though statistically non-significant, each of these correlations were positive and may demonstrate a need for the study to be replicated using greater statistical power.

This dissertation is dedicated to my husband and family for all their help, support, and love.

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CHAPTER ONE: INTRODUCTION

Background and Significance

The profession of "athletic training educator" began in the late 1960's following the first National Athletic Trainers' Association (NATA) proposed curriculum model in 1959 (Delforge & Behnke, 1999). Until that time, athletic trainers were educated using the coursework of other disciplines, mainly physical education ("Accredited programs," 2009; Delforge & Behnke, 1999; Weidner & Henning, 2002b). In 1969, there were four athletic training educational programs (ATEPs). That number has grown to 344 undergraduate programs and 19 entry-level master's programs in 2009 ("Accredited programs," 2009).

Evaluation of current position vacancy notices shows that athletic training faculty are hired for their clinical expertise or teaching experience, and not for their formal educational preparation for academia. On October 24, 2008, the NATA Career Center listed 20 position vacancy notices under the heading of "College-Academic/Educational and Dual Appointment." Analysis of these position vacancy notices revealed that 60% (12 of 20) listed teaching experience as a qualification and only one (5%) posting suggested that formal coursework in the field of education was needed. This position vacancy listed the requirement of a doctoral degree in "Kinesiology/Physical Education or a related field" as a qualification, leaving candidates open to having a degree in areas other than education.

While several researchers report that athletic training faculty lack formal coursework in the field of education (Craig, 2006; Hertel, West, Buckley, & Denegar, 2001), little research has been done to assess the specific quantity of coursework in education, teaching practices, or

educational knowledge of athletic training faculty. In 2002, a review of athletic training education research publications highlighted the paucity of research in this area. What has been published is mainly directed at learning styles, professional development of students, instructional methods related to technology, clinical instruction, predictors of success on the Board of Certification (BOC) examination, program administration, and continuing education as a way to maintain clinical skills (Turocy, 2002). Athletic training research that specifically addresses classroom instructional methods is narrow. Much of the existing classroom instructional methods research focuses on technology, problem based learning and peer-assisted learning. While there is some demographic data related to the degrees earned by athletic training educators (Craig, 2006; Hertel et al., 2001; Perkins & Judd, 2001; Rich, 2006) little is known about the amount of formal educational coursework taken by the cadre of athletic training educators because of differing participant groups and methodologies. Also, Craig (2006) highlighted the lack of research in the area of teaching knowledge possessed by athletic training educators and the lack of formal training in teaching methods. There are no known studies investigating the approach to teaching of athletic training faculty, or ATEP students' evaluations of athletic training instruction. Research is needed to fill the gap in the literature related to the background, beliefs, practices, and outcomes of ATEP classroom instructors.

Athletic training education is currently in a period of significant reform (Weidner, 2006). In 2004, the elimination of the internship route brought important structure and uniformity among ATEPs. Changes in accreditation standards have brought oversight that was largely absent in many "internship" ATEPs a decade ago. Currently, ATEPs accredited by the Commission on Accreditation of Athletic Training Education (CAATE) follow standards related to sponsorship,

personnel, financial resources, physical resources, operational policies and fair standards, health and safety, student records, outcomes, curriculum and instruction, and clinical education. Of the 38 standards ("Standards for the accreditation of entry-level athletic training education programs," 2008), none address a mandate for faculty to be formally trained or experienced with educational concepts. One standard (B1.34) addresses the qualifications of the program director, stating that the program director must "demonstrate teaching, scholarship and service consistent with institutional standards" (p. 3). The lack of emphasis placed on collegiate faculty having formal training in the field of education is not unusual. In many fields, college faculty are expected to have content area expertise, not necessarily pedagogical expertise.

In medical education, it was traditionally thought that a qualified practitioner ensured a qualified instructor (PJ McLeod, Steinert, Meagher, & McLeod, 2003) or that a good teacher is "born" and not "made" (Seldin, 1994). In public high schools, the qualification to be a teacher is usually a teaching degree or the completion of a teacher certification program in addition to subject matter competence. In higher education, subject matter competence is primary. Applicants are hired according to their academic preparation in their field of study and not generally according to their formal preparation for the responsibilities of the position. It is assumed that if the candidate knows the content, they will be able to teach, or that through experience in the classroom, the requisite teaching skills will develop. Some have challenged this assumption (Marsh, 2007; Roush & Holcomb, 1974; Shulman, 1986; Valentine, Edwards, Gohagan, Pereira, & Wilson, 1998). In fact, a study of 195 teachers, evaluated over 13 years, found that there is no evidence that teaching experience increased teacher effectiveness (Marsh, 2007). Athletic training faculty are hired in much the same way as other disciplines. Given the

traditions of higher education, it is not surprising that athletic training education has not considered the formal educational preparation of ATEP faculty of import.

Shulman (1986) stresses that content knowledge, pedagogical knowledge, and curriculum knowledge are all important to teaching. Sternberg & Horvath (1995) build upon Shulman's theory by emphasizing that there are three areas of knowledge attained by expert teachers: content knowledge, pedagogical knowledge, and practical knowledge. Without content knowledge, the teacher cannot apply the pedagogy properly. Without the pedagogy knowledge, the teacher cannot properly transform that knowledge so that a student can best learn it (Purdom, Laframboise, & Kromney, 1997). ATEP educators must be good practitioners of athletic training content knowledge and also be knowledgeable in the ways to best express that knowledge to the student. Considering the amount of time students spend in ATEP classrooms, the quality of instruction could be a valuable piece of the reform puzzle. Weidner (2006) reflected on educational reform, stating that athletic training educators' "choice of pedagogy will have consequences for our relationships with our students and will play a major role in athletic training education reform" (p. 7).

One choice that athletic training educators have is the approach they take to teaching. Early research on teacher approach suggests that student-focused teaching is positively correlated to students' deep approach to learning (versus a surface approach to learning). Student-focused teaching is exemplified by the teacher being interested in changing the conceptual understanding of the subject versus transmitting information to the students. Formal training in educational concepts is shown to increase student-focused instruction, increase a student's deep approach to learning, and increase student learning scores on student evaluations (Gibbs & Coffey, 2004).

Weidner (2006) points out that the use of student-focused methods, such as problem-based learning are an important component to the education of athletic training students. He states "…it is through pedagogy that we may see true changes in educational reform – a true repositioning of teacher and student" (p. 7).

Statement of the Problem

The CAATE standard I3 ("Standards for the accreditation of entry-level athletic training education programs," 2008) mandates "formal instruction in the expanded subject matter as identified in the *Athletic Training Educational Competencies*. Formal instruction must involve teaching of required subject matter with instructional emphasis in structured classroom and laboratory environments" (p. 9). In addition, Standard I4 states that "the clinical education plan must follow and reinforce the sequence of formal classroom and psychomotor skill learning" (p. 10). These standards demonstrate that the classroom component of an ATEP is the first step in the education of the student. Proper instruction of the subject matter in the classroom setting provides the building blocks for all experiential education to follow.

Many current athletic training faculty matriculated before the requirement of a degree from an accredited ATEP, and the majority are shown to possess undergraduate degrees in education (Delforge & Behnke, 1999; Perkins & Judd, 2001; Rich, 2006). With the advent of a formal and standard route to certification, the number of faculty possessing an undergraduate degree in education will decline gradually until there are very few remaining. The small amount of research regarding the post-graduate qualifications of athletic trainers suggests that approximately 27% of athletic training educators have a master's degree in physical education or education (Rich, 2006) and approximately 51% of doctoral educated athletic training faculty

possess a doctoral degree that is related to education (Staurowsky & Scriber, 1998). Using the best evidence available, many athletic trainers are not formally prepared for faculty instructional positions, and with the 2004 mandate requiring graduation from an accredited athletic training program (instead of the previously common degree in physical education), that number will likely decline as time goes on.

Considering the limited formal course work in education possessed by many athletic training faculty, the question must be raised: does formal instruction in education relate to teacher competence? Research points to effective teacher behaviors and instructional methods shown to aid in student learning. Specifically, the use of student-focused teaching methods are shown to increase students' deep approach to learning (Trigwell , Prosser, & Waterhouse, 1999). Gibbs & Coffey (2004) reported that teachers increased the use of student-focused methods when they were trained in pedagogy. The same study found that students reported increased learning when their instructors were trained in pedagogy. Research also shows that students adopted a higher quality approach to learning when they perceived their instruction to be of higher quality (Ramsden, 1997). The purpose of this study is to investigate if there are correlations among an instructor's approach to teaching, student evaluation of instruction outcomes, and the amount of formal coursework in education a teacher has completed.

Research Questions

The research questions examined in this study were:

1. Is there a correlation between the number of formal educational courses taken by ATEP faculty and their approach to teaching?

2. Is there a correlation between the amount of formal educational courses taken by ATEP faculty and their students' evaluations of instruction?
3. Is there a relationship between faculty's approach to teaching and students' evaluations of instruction?

Methods

A concise summary of methods is presented here. A more complete description of the methods is presented in Chapter 3.

The first phase of this study began by distributing an email to the program directors of ATEPs in the State of Florida. Contact information for the program directors of all accredited programs was obtained from the Commission on Accreditation of Athletic Training Education (CAATE) website (http://www.CAATE.net). Program directors were asked to assist in recruiting the participation of all certified athletic trainers who qualify as full-time faculty (defined as teaching two or more courses per semester) teaching in their ATEP by releasing names and contact information to the researcher. All faculty were sent an initial email to generate interest and let faculty know that an invitation to participate and a questionnaire was sent to their work address. The invitation to participate explained that the research would consist of two phases. Phase one included of a faculty questionnaire and phase two consisted of a questionnaire for the students in one of their courses.

The phase one faculty questionnaire contained two parts: the Approaches to Teaching Inventory (ATI-R) (Prosser & Trigwell, 2007) and demographic questions related to the quantity of formal coursework in education and current job position. The ATI-R is a measurement tool

that determines the teaching approach of an instructor. Two scales are used: conceptual change/student-focused (CCSF) and information transfer/teacher-focused (ITTF).

Phase two of the study consisted of having the students complete the Students' Evaluation of Educational Quality (SEEQ) (Marsh © 2002). The phase two student questionnaire was sent toward the middle of the semester and was to be completed by the students in the same course used as context for the phase one faculty questionnaire.

Definitions

- **Approaches to Teaching Inventory (ATI-R) (Prosser & Trigwell, 2007) –** A questionnaire designed to measure the extent that an instructor is teacher-focused or student-focused.
    - **Student-Focused -** Focused on changing the conceptions of the student.
    - **Teacher Focused -** Focused on transmitting information to the student.
- **Athletic Training Education Program (ATEP) –** An academic program housed within a four year college or university that educates students to become athletic trainers. In 2004, all athletic training programs were required to be accredited by the Commission on Accreditation of Athletic Training Education (CAATE).
- **Certified Athletic Trainer (ATC) –**An athletic trainer who passed the certification examination and has maintained their certification. As of 2004, this required graduation from an accredited ATEP.

- **Commission on Accreditation of Athletic Training Education (CAATE) –** An independent accrediting agency for athletic training education programs.

- **Clinical Instruction-** Instruction that takes place within the confines of a student internship. Generally clinical instruction happens in an athletic training room or rehabilitation clinic.

- **Classroom Instruction –** Instruction that takes place within the confines of the classroom or laboratory as a product of a formal course and does not encompass online instructional formats.

- **Formal Educational Training –** Education received in the area of teaching methods, pedagogy, curriculum or instruction as a part of a collegiate course.

- **Full-Time Faculty-** Faculty who teach two or more courses each semester in an ATEP program.

- **Teaching Experience –**The amount of time someone has been teaching at least two courses per semester in an ATEP.

- **Students' Evaluation of Instructional Quality (SEEQ) (Marsh, © 2002) –** A widely used student feedback questionnaire measuring nine aspects of instructional effectiveness.

Limitations

1. This study's results can only be generalized to athletic trainers who are full-time faculty (defined as teaching two or more courses each semester) teaching in Florida ATEPs.
    - It is possible that non-full time faculty display different characteristics than full-time faculty.
    - It is possible that full-time faculty who teach in other states display different characteristics than those in Florida.
2. The researcher was unable to gain approval from the institutional review boards of two Florida universities. In addition, the researcher did not use their own affiliated ATEP. It is possible that the faculty in those universities represent different characteristics than other universities in Florida.
3. The sample size was not large enough to determine construct validity for the ATI-R.

Assumptions

1. The researcher assumes that the program directors of the Florida ATEPs provided a complete list of eligible faculty.
2. The researcher assumes that faculty and students were honest when answering the questionnaires.
3. The researcher assumes that faculty followed directions and procedures (as requested) meant to protect the accuracy and confidentiality of the demographic, ATI-R, and SEEQ data.

Summary

Incomplete research exists regarding the formal educational training of ATEP faculty and no research exists that investigates students' evaluations of the instruction provided by ATEP faculty. If athletic training educators want to improve the quality of students entering the field, this component of educational quality should not be ignored. By using a quantitative approach including questionnaire data from faculty and evaluations of teaching quality from students, the researcher hopes to address the relationships among faculty training in pedagogy, approaches to teaching, and students' evaluation of educational quality.

CHAPTER TWO: LITERATURE REVIEW

The relevant literature related to this study includes a wide range of topics requiring an exhaustive review in the following areas: the history of athletic training education; the educational history, experience, and employment characteristics of ATEP faculty; the educational knowledge of ATEP faculty; the qualifications and student outcomes; the evaluation of instructors; the evaluation of athletic training faculty; and effective instruction. When applicable, the literature from nursing, physical therapy, and medicine was also included. Relevant research was found using database searches of ERIC, SportDiscus, PubMed, Medline, and Dissertation &Theses: Full Text. Special care was taken to include relevant research from the *Athletic Training Education Journal* as it is not currently listed in a database.

The History of Athletic Training Education

Athletic training education began in 1959 with the first athletic training curriculum model. The model, proposed by the NATA, emphasized the students' ability to gain a teaching credential and the completion of physical therapy graduate program pre-requisites. This initial model was comprised mainly of courses already offered as a part of a physical education degree. Additional courses particular to the discipline of athletic training were added. The first four NATA approved programs were approved by the NATA in 1969 and the first certification exam was held in 1970 (Delforge & Behnke, 1999).

In 1970, the NATA released a new curriculum model and the NATA's Professional Education Committee made a formal list of objectives and learning outcomes. This new curriculum marked a divergence from a reliance on schools of physical therapy and physical

education. The new curriculum did not contain coursework related to pedagogy. By 1980, the requirement that programs include professional teaching credential coursework was removed. The evolution of a new curriculum, new objectives, and new outcomes revealed a greater emphasis on content that was much more specific to the field of athletic training (Delforge & Behnke, 1999).

By 1982, there were 62 NATA approved athletic training education programs and 9 NATA approved graduate athletic training programs. The NATA Board of Directors mandated that all approved curriculum programs offer athletic training programs as full academic majors by 1990. New guidelines released in the 1980's changed the specific course requirements to subject matter requirements, thus allowing programs more flexibility. These new guidelines also included the first *Competencies in Athletic Training*. The new *Competencies* were based on the first role delineation study conducted by the NATA Board of Certification in 1982 (Delforge & Behnke, 1999).

The 1990's brought American Medical Association (AMA) recognition of athletic training as an allied health field and also the first formal accreditation of athletic training programs. In addition, further differentiation between undergraduate athletic training programs and master's level athletic training programs was made. As of 1996, matriculation from a master's in athletic training program was no longer an avenue to the certification exam and those programs offering a master's had to demonstrate "advanced" level athletic training content (Delforge & Behnke, 1999).

Since the 1980's, a gradual elimination of alternate routes to certification has occurred. In 2004, the final alternate route to certification was eliminated and the only route to the

certification exam became graduation from an accredited ATEP. Currently students can only become eligible to sit for the Board of Certification (BOC) examination through completion of a CAATE accredited undergraduate or entry-level master's ATEP. This marks a significant milestone in the specialization of athletic trainers as possessing distinct, uniform and specific knowledge (Delforge & Behnke, 1999).

Educational History, Experience, and Employment Characteristics of ATEP Faculty

Educational History

While some research has been done to assess the degrees obtained by ATEP faculty, to date, no research exists that quantifies how much educational training exists within the degrees (Craig, 2006; Hertel et al., 2001). There is no CAATE mandate that faculty be trained in educational concepts ("Standards for the accreditation of entry-level athletic training education programs," 2008). The 4th Edition Competencies do not address educational concepts (*Athletic Training Educational Competencies*, 2006). It is unknown whether any undergraduate athletic training programs are instructing their students in teaching methods, pedagogy, curriculum or instruction. Before 1980, there was emphasis on athletic training students obtaining a teaching credential during their undergraduate program so that employment in the secondary school setting could occur (Delforge & Behnke, 1999). However, since 1980, the expansion of the core content within ATEPs made it difficult to obtain a teaching credential while still graduating in four years.

Perkins & Judd (2001) found that 90% of the program director respondents had obtained physical or health education undergraduate degrees. Rich (2006) also found that a large number of athletic training faculty had earned undergraduate degrees in education. In this survey of

athletic training faculty, 33% had earned a physical education degree and 31% had earned a degree in athletic training. In addition, 3% of these faculty earned a minor in physical education.

The mean ages of the respondents in both the Perkins & Judd (2001) and the Rich (2006) studies show that their respondents were likely to be earning their undergraduate degrees in the late 1970's and early 1980's, just around the time that programs were beginning to deemphasize the dual credential (athletic training and education). Since 2004, students are required to participate in an accredited undergraduate or entry-level graduate ATEP in order to sit for the BOC examination. Considering that in 2009, there are 344 accredited undergraduate programs and only 19 accredited entry-level masters programs, it is reasonable to assume that most students elect to gain their formal training at the undergraduate level ("Accredited programs," 2009). Because of the 2004 mandate, current and future studies, using more recent graduates, are likely to show a much more narrow scope of undergraduate degrees than are historically found. There is no research that suggests that current undergraduate ATEPs are teaching educational content.

There is limited research regarding the educational content within master's level ATEPs. Rich (2006) found that, at the master's level, ATEP faculty hold degrees emphasizing the following content areas: 23% athletic training, 15% physical education, 12% exercise science, 12% kinesiology, and 12% education. Hertel et al. (2001) found that a similar percentage of their study participants (32.7%) earned a master's degree from a graduate athletic training program. According to recent data, programs offering a master's degree in athletic training are not offering educational courses as a part of the curriculum. Craig (2006) showed that, of all thirteen

institutions offering an advanced athletic training degree at the master's level, only one program contained a course in educational principles, and that course was an elective.

Rich's (2006) study found that 16.5% of all ATEP faculty earned a Master of Education (MEd) degree (versus an MS or MA or other type of degree). Hertel et al. (2001) found that in a study of doctoral-educated athletic trainers, 17.2% earned an MEd. However, the degree classification as a Master of Education does not guarantee that courses in education were a part of that degree. In the experience of the author, sometimes the degree designation has more to do with the college the program is housed in and the historical roots of the degree than the content of the degree. For instance, the University of Virginia has a Master of Education degree in Athletic Training that contains no required course offerings related to education ("Master's degree (MEd) in Athletic Training," 2007).

It is unknown exactly how many athletic training faculty have earned a doctorate as the survey sampling methods and differences between populations surveyed contribute to differing results. Reports quantifying the doctoral training of athletic training faculty are varied, Staurowsky & Scriber (1998) surveyed 153 athletic trainers employed in ATEPs and found that 30% had earned a doctorate while Rich (2006) found that 63% had earned a doctorate and 17% were in progress with one. Perkins & Judd found that 43% of program directors were doctoral-trained. At the doctoral level, Hertel et al. (2001) made an attempt to distinguish between the type of doctoral degree and the content of that degree. The study showed that 24% of all doctoral-trained athletic trainers have degrees classified as "Education and Administration," and 27% classified as "Health and Physical Education." Of all doctoral-trained athletic trainers, 34% earned a Doctor of Education (EdD) and 59% earned a Doctor of Philosophy (PhD). Rich (2006)

also attempted to differentiate between content areas and found that of the 63% of faculty who had earned a doctorate, 9% were in curriculum and instruction, 7% were in higher education, 6% were in higher education administration and 6% were in higher education leadership. 15% of these were EdD. degrees, 27% of these were PhD degrees and 17% were unspecified degrees in progress.

Athletic trainers can also learn about educational concepts through mentoring and experience. Many athletic trainers choose to use graduate assistantships as a way to finance their master's degree and as a way to gain experience as an athletic trainer. Hertel et al. (2001) found that 67% of doctoral-trained athletic trainers had a graduate assistantship and 49% had teaching responsibilities with their assistantship. No attempt was made to find out what kind of teaching responsibilities were included or whether the position included any mentoring or professional development that would aid in the development of teaching skills. It is unknown whether the participants who had teaching responsibilities were primarily responsible for a course, were teaching/laboratory assistants, or filled some other role in the ATEP administration.

Craig (2006) stratified respondents according to whether they had no instruction in teaching methodology ("none"), instruction before or after their graduate degree ("some") and whether they received instruction before and after their graduate degree ("much"). The mean level of teaching methodology instruction was a 3.37 (2 = none, 3 = some, and 4 = much). This research, while groundbreaking, still failed to determine the specific quantity of formal coursework. The study respondents were placed in each category depending on if and when they had instruction, and not how much instruction they had.

Rich (2006) studied ATEP faculty and gained more information regarding ATEP faculty's training in education/pedagogy concepts and reported that 71% of ATEP faculty had earned a degree based in pedagogy/education at some time during their educational tenure. In addition to degrees earned, Rich found that athletic training faculty, on average, had completed 8.13 courses in education/pedagogy as a part of a degree program. The study also found that ATEP faculty had attended 8 workshops or educational sessions. These data were confounded by the manner in which the questions were written. The researcher allowed the participant to "fill in the blank," rather than giving a range, value or criterion. Therefore, the respondents answered using classes, credits, ranges, and sometimes words. Responses such as "too many" and "I don't know" necessitated some data to be discarded. The researcher reported making adjustments such as dividing credit hours by three to obtain the approximate number of courses taken by the respondent. In addition, the selection sample could have been biased because the researcher used a non-random purposeful sample. The researcher sent initial emails to program directors and asked them to complete the survey, then forward it to people they thought would be interested in completing it. Also, the researcher posted the survey on the Athletic Training Educators' Listserv in order to gain more respondents. Both of these methods could bias the sample towards educators who are more interested in education/pedagogy and their interest in the survey could have been due to their educational background.

Experience

Staurowsky & Scriber (1998) found that the mean years of athletic training experience for athletic trainers employed by ATEPs was 12.5 years. In a study of program directors, Perkins & Judd (2002) found that the mean years of experience as an athletic trainer was 18.5 years, and

9 years as a program director. Mensch & Ennis (2002) found ATEP instructors to have an average of 9.1 years of teaching experience. While there are some differences in the reported teaching experience of ATEP faculty, literature suggests that more experience does not automatically mean that instruction improves.

Marsh (2007) studied 195 teachers in 31 academic departments and found that during a period of 13 years, there was no evidence that teaching effectiveness improved. Evaluations of teacher effectiveness scores, while different for each instructor, tended to be very stable over time. His review of literature demonstrated multiple studies that found a negative correlation between teaching experience and evaluation scores while academic rank and evaluation scores were positively related. Feldman (1977) reported an inverted U-shaped relationship between teaching experience and teaching effectiveness at both the K-12 level and the university level. Teachers tended to get higher scores initially, peaked and then slowly declined.

While there is limited information regarding the precise years of teaching experience of ATEP faculty, the broad research on teaching experience suggests that the amount of teaching experience is not a good indicator of teaching ability. There is no evidence to demonstrate that hiring an instructor based on teaching experience ensures a higher quality outcome.

Employment Characteristics

Staurowsky & Scriber (1998) report that most ATEP faculty hold faculty positions in which teaching represents 40% of the total work load. Time spent teaching was listed as greater than supervision and service to athletics. One-half of athletic trainers in their study had clinical responsibilities. The researchers express a struggle for athletic training faculty to meet the demands of both teaching and athletic training clinical appointments. This competition between

the dual roles of athletic training faculty is reflected by other authors as well. Hertel et al. (2001) found that 39% of their questionnaire respondents felt that their current faculty position requirements left them unable to maintain their clinical skills. Using Shulman's (1986) model that stresses the importance of content knowledge, pedagogical knowledge and curriculum knowledge, a problem arises when the content knowledge of athletic training educators is compromised by the multiple demands of their teaching position.

In a study of ATEP program directors, Perkins & Judd (2001) listed teaching and administrative tasks as the main duty within their position. Seventy-two percent of respondents had the title of program director included in their job description, 43% also held the title of assistant professor, and 26% had earned tenure. Twenty-six percent of respondents were tenure track, and 20% were not. The authors express that a main dilemma of program directors is the stress of earning tenure. They recommend that athletic training faculty clearly understand the tenure requirements at their university so they can determine where their efforts should be placed. Perrin & Lephart (1988) suggest that the tenure and promotion requirements can be detrimental to teaching.

Educational Knowledge of ATEP Faculty

Research on the influence that degree level and formal educational training have on faculty educational knowledge is mixed. Craig's (2006) study attempted to evaluate athletic training faculty's self-perceived knowledge of pedagogical concepts. Respondents self-perceived knowledge was 3.91 (3 = good, 4 = very good). While this research showed statistically significant differences in self-perceived knowledge scores of faculty with and without a master's degree, it is not clear whether self-perceived knowledge is related to actual knowledge. Craig

also found that those with the lowest self-perceived knowledge scores had lower gap scores (difference between self-perceived knowledge and self-perceived competence). So the respondents who knew the least also detected the least amount of problem with their lack of knowledge and were least likely to seek further educational courses.

Some studies have investigated what knowledge is needed by faculty; however it is limited to what knowledge doctoral-trained faculty need to fulfill their job requirements. According to Hertel et al. (2001), teaching undergraduate athletic training classes was listed as the most important competency for doctoral-trained athletic trainers to possess and the ability to perform athletic training education research was rated among the least important competencies for doctoral-trained athletic trainers to possess. This result shows a clear discrepancy between what doctoral-trained faculty feel is important to succeed in their academic position and what they learned in their formal preparation through doctoral coursework. Outside of athletic training, a survey of allied health faculty deans found six important teaching competencies for allied health faculty. These competencies include: teaching graduate courses, teaching research skills, teaching undergraduate courses, participating in innovative curriculum development, assessment and revision, applying innovative teaching methods, and using state-of-the-art technology in the classroom (Elder & Nick, 1995).

Faculty Qualifications and Student Outcomes

Research on faculty qualifications and student outcomes is also mixed. Williams & Hadfield (2003) found a positive relationship between the number of athletic training faculty with a terminal degree and student pass rates on the certification exam. However, they found a negative relationship between faculty K-12 experience and the pass rate. One can assume that K-

12 experience would mean that those athletic trainers either possessed a teaching credential, or at the very least, had experience in a K-12 classroom before becoming college faculty. According to this study, there was an inverse relationship between the number of faculty with K-12 experience and the number of students passing the national examination on the first attempt.

Outside of athletic training, research on the necessity of formal educational training varies. In one nursing study, Stevens (1996) found a strong inverse relationship between the number of nursing faculty with a doctorate and the pass rate of the NCLEX-RN. Perhaps, this surprising result shows the influence of the tenure and promotion stresses that doctoral-trained faculty face. The researcher hypothesized that both nursing faculty who are in progress with a doctoral degree and those who have already completed doctoral training spend more time on research and publication, areas that are not related to the entry-level nursing concepts they are teaching. In addition, faculty are often given release time from their clinical teaching responsibilities, further diminishing their ability to maintain their clinical and teaching skills.

MacDougall & Drummond (2005) were interested in the fact that medical teachers also lack formal training in education. Nine of ten experienced medical faculty interviewees had attended formal education courses yet only one mentioned acquisition of knowledge as something that helped them develop as teachers. In general they felt formal classes were not of much benefit, other than giving them time for reflection. McLeod et al. (2006) showed that medical clinicians, who were trained in education, scored highest on a test of tacit pedagogic principles. In addition, all groups scored higher on procedural knowledge than declarative knowledge. This infers that there is also some learning through socialization rather than completely through formal instruction.

Evaluation of Instructors

Many studies on teacher effectiveness rely on self-reported actions and opinions of educators. There is reason to believe that instructors' self-reported behaviors do not match what they actually do in the classroom. Hartman & Nelson (1992) used quantitative and qualitative data regarding the self-reported behaviors and opinions of preclinical medical faculty. They then had the faculty complete four written simulations related to small group instruction, course design, lecturing, and test construction. The results demonstrated that, in most cases, the correlation between the self-reported items and actions taken in the simulations was very low. Marsh (1984) reported that evaluation of instruction by faculty peers did not correlate well with student achievement or student ratings of their instruction. In addition, Brooks (2001) established that while educational beliefs influence how athletic training educators teach, ultimately formal pedagogical training, experience and job requirements also mediate the end-product. If self-reporting methods, peer evaluations, and teacher beliefs cannot be shown to be predictive of teacher effectiveness, student evaluation of instruction data provides an alternate means of assessing this construct.

Reliability, Validity, and Stability of Student Evaluation of Instruction Data

Research on student evaluation of instruction scores as a means to evaluate teacher effectiveness largely shows that, when the instrument is soundly constructed, their scores can be reliable and valid. While faculty in higher education are sometimes wary that student evaluation of instruction scores can be biased toward popular or easy teachers, research has shown that this is not the case.

Marsh (1984) published a comprehensive review of the literature and lamented that, at first glance, the literature offered extensive research on both sides of the fence. Marsh states, "opinions about the role of students' evaluations vary from 'reliable, valid, and useful' to 'unreliable, invalid, and useless'. How can opinions vary so drastically in an area which has been the subject of thousands of studies?" (p. 708). He states that there are many problems with current research in this area. First, he believes there is a pre-conceived bias that springs from faculty inherent distrust of student evaluations. Second, some researchers overstate the role and use of student evaluations. Third, there are a wide variety of tested and untested evaluation forms in use that contribute to confusion when they are used for research purposes. Marsh's study systematically reduced the literature to only methodologically sound and unbiased studies of quality evaluation questionnaires. He found that the scores from these evaluations are reliable, stable over time, are more affected by the instructor than the course, and are valid. Marsh found no conclusive evidence that student evaluations were affected by the students' expected grade. Surprisingly, he found evidence that students rated teachers higher when the workload was higher. This review did find evidence that larger class sizes systematically and negatively biased students' evaluation of the instructor; however, statistically, this had a small effect size.

Aleamoni (1987) reviewed student evaluation of instruction research and determined that students' judgments are consistent, students are not fooled by their attraction to the teacher, and that there is little influence from factors such as class size, student gender, instructor gender, time of day, major of the student, semester or expected grade. The review did find that students' perception of instruction was influenced by whether the course was an elective or required course and the student's year in school. Aleamoni addresses faculty concerns regarding student

evaluation as a means of evaluating teaching quality. He directly confronts the irony that faculty will dismiss these evaluations due to bias on many levels, yet do not realize that students could make the same argument regarding their grade in the course. Aleamoni argues that students can equally argue that their personality (or lack thereof), the time of day, type of course, method of examination, gender and class size will affect the teacher's evaluation of them. He notes that faculty would be hard pressed to provide evidence that scores from course examinations are both reliable and valid and would have difficulty proving that there is no possible bias in the awarding of course grades. If faculty reject the idea of being graded by student evaluations due to the concerns of reliability, validity and bias, they must also reject the idea of grading the students on the same criteria.

Marsh (2007) recently published a large research study regarding the stability of student evaluations of teaching over time. A thirteen year study of the data from 195 teachers found that university teachers' effectiveness remained stable. While demonstrating stability of an evaluation form is positive, the fact that faculty are apparently unable or unwilling to use student feedback to improve their performance in the classroom is alarming. Marsh reports that "sadly, there is a broad range of longitudinal and particularly of cross-sectional research demonstrating that without systematic intervention, teaching effectiveness - at all levels, no matter how measured - tends to decline with age and years of teaching experience" (p. 776). This brings up two key points. First, if good teachers tend to stay good teachers and poor teachers tend to stay poor teachers, importance should be placed on the initial training of teachers. Second, if systematic intervention, by means of continuing education in pedagogy, is shown to be more effective than

the general feedback that student evaluation scores provide, importance should be placed on formal continuing education programs in this area.

The Students' Evaluation of Educational Quality Questionnaire

The most commonly used student feedback questionnaire in the USA is the Students' Evaluation of Educational Quality (SEEQ) questionnaire. The average student response score is found to have excellent reliability and reasonable validity (Coffey & Gibbs, 2001; Marsh, 1984). Developed by Herbert Marsh, the SEEQ demonstrates a robust factor structure both using students in the USA and in the UK (Coffey & Gibbs, 2001). The SEEQ was found to have good reliability when the scores of 10 to 15 students are used to evaluate teachers (Marsh, 1984).

Some research has been conducted examining the effectiveness of teacher training on SEEQ scores. Gibbs & Coffey (2004) found that after a year of teacher training, SEEQ scores on five scales used to evaluate teaching skills increased while control group scores remained the same or decreased. The five scales used to evaluate teaching skills for this study included enthusiasm, organization, group interaction, rapport and breadth. In addition, a sixth scale was evaluated that looked at whether the students learned something that they considered valuable. Results showed that for the students whose teachers participated in training, the student learning scale increased whereas the control group student learning scale remained the same.

Evaluation of Athletic Training Faculty

Perkins and Judd (2001) comment that "good to excellent ratings" are expected by students, and that faculty evaluation of classroom instruction is important. They suggest that the lack of time program directors are able to spend in the clinical environment is detrimental to student opinions of their effectiveness as an athletic trainer. The researchers recommend that

program directors spend more time in the clinical environment with the students in order to make students aware that they are capable of doing what they teach. Perrin & Lephart (1988) also note that students may not have as much respect for faculty who are never seen performing as athletic trainers. However, Williams & Hadfield (2003) found that the less clinical responsibility the ATEP faculty had, the higher the students' first-time pass rate on the National Athletic Trainers' Board of Certification (NATABOC) exam. They propose that faculty with less clinical responsibility are able to plan, prepare and teach better.

Staurowsky & Scriber (1998) report that 80% of athletic training faculty stated that their student evaluation of instruction values were "important" or "very important" to promotion and retention. Sixty percent of participants reported that peer evaluations were important or very important. Forty percent of participants reported that scholarship was neutral, unimportant or very unimportant to promotion and retention. Again, this points to the discrepancy between the content of athletic training faculty degrees and how they are evaluated when they enter a faculty position.

Effective Instruction

Shulman (1986) expresses the viewpoint that expert teachers possess content knowledge, pedagogical knowledge and curriculum knowledge. Since athletic training educators can be assumed to possess content specific knowledge (they passed the BOC examination), only pedagogical and curriculum knowledge needed for expert teaching will be addressed here. Pedagogical knowledge includes teaching techniques, motivational techniques, classroom management skills, and assessment skills. Curricular knowledge is an understanding of the various ways that a subject can be taught. This includes an appreciation of the available

instructional materials and when they are best used. The expert teacher is aware of the learner's needs as well as the differences between learners. Expert teachers pay more attention to the goals of instruction than novice teachers do and have a firm grasp on a variety of teaching methods used for instruction (Purdom et al., 1997). While research on effective pedagogy abounds in the general educational literature, the research on pedagogy specific to the field of athletic training education is lacking. The majority of research focuses on the clinical setting, with very little focus on effective classroom pedagogy.

Classroom Instruction

Only one study was found that investigated pedagogic strategies and student learning in athletic training education. Using qualitative analysis, Mensch & Ennis (2002) found three important pedagogic strategies that fostered athletic training student learning: use of scenarios and case studies, authentic experiences, and a positive educational environment. The use of scenarios and case studies were identified by this researcher as strategies specific to classroom instruction, and therefore worthy of inclusion in this literature review. These pedagogic strategies were described by student participants as: the instructor's stories of their own experiences; the instructor development of scenario cases during laboratory experiences; and discussions regarding appropriate management of real-life and case study scenarios. Assignment of in-depth explorations of actual injury cases, administrative cases or therapeutic rehabilitation/therapeutic modality cases were also described as helpful pedagogic strategies. These pedagogic strategies were reflected in the analysis of student, instructor and syllabi data.

Clinical Instruction

The research on effective clinical instruction is more widely explored in athletic training research. It is a frequent topic for published research, articles, and continuing education sessions. Weidner & Henning (2002a) published a comprehensive article on effective clinical instructor behaviors found in allied health research. They state that athletic training clinical instructors need to demonstrate several things: legal and ethical behavior, communication skills, interpersonal skills, supervisory skills, instructional skills, evaluation and assessment skills, clinical competence, administrative skills, and professional development. Instructional skills and evaluation and assessment are both components of effective pedagogic strategies. Specifically, instructional skills necessary for a clinical instructor include: understanding of teaching and learning styles, encouraging of critical thinking, providing organized and purposeful clinical instruction, creating a positive learning environment, applying adult learning principles, recognizing the teachable moment, ensuring opportunities for critical reflection, and encouragement of students' self-direction. Evaluation and assessment skills specifically relate to providing feedback as well as formative and summative evaluation of student performance.

Foster & Leslie (1992) studied clinical teaching roles of athletic trainers and found that 82% of clinical athletic trainers used a teacher-centered approach most often. The teacher-centered approach usually consists of lecturing, instructing and presenting and is very closely related to the common classroom lecture teaching style. Overall, the respondents had a high opinion of teaching athletic training students stating that they enjoyed it, felt it was important, and felt it was not difficult to do. They reported that they were somewhat academically prepared to teach in a clinical setting. When grouped by athletic trainers with and without teaching

degrees, clinical instructors with teaching degrees rated their duties to athletic training students as more important than their non-teacher counterparts. Teachers also felt their duties were less difficult and were more confident regarding their academic preparation. Teachers made stronger connections between the organization of clinical instruction and classroom instruction than non-teachers did. Finally, clinical instructors who earned a master's degree or higher reported using a broader range of teaching methods.

The Approaches to Teaching Inventory

The Approaches to Teaching Inventory (ATI) was developed by Trigwell and Prosser following a phenomenological study of 24 first-year university science teachers in Australia. The researchers hypothesized that the adoption of more student-focused approaches to teaching resulted in students adopting a deeper approach to learning. The responses from the participants led to the classification of five types of instructors, ranging from teacher-focused with the emphasis on transmission of knowledge, to student-focused with emphasis on developing and changing conceptions (Trigwell & Prosser, 1996).

The original qualitative study demonstrated a need to develop a quantitative instrument that could be used on a larger scale to investigate questions related to teacher approach and student learning. The instrument was borne of 74 statements made by the initial qualitative respondents, and systematically reduced to the 22 items on the current ATI-R using statistical analysis of several more versions of the developing survey (Prosser & Trigwell, 2007; Trigwell & Prosser, 2004).

The ATI-R was designed to measure the extent that a teacher is student-focused or teacher-focused as well as investigate the intention and strategies of the teacher. Student versus

teacher focused strategies are categorized by the extent that the activities in the classroom emphasize what the student is doing and what the teacher is doing, respectively. Student versus teacher focused intentions are categorized by the extent that the teacher aims to develop and change the students conceptions of the subject versus transmission and acquisition of information, respectively (Trigwell & Prosser, 1996). The ATI-R was not intended to be used to gain a full understanding of a teacher and was not intended to be used in a non-relational way. It was intended to give some indication of teacher approach in relation to the students' approach to learning or another relational construct (Trigwell , Prosser, & Ginns, 2005).

The ATI-R consists of two 11-item subscales. The first subscale is the information transfer/teacher-focused scale (ITTF) and the second subscale is the conceptual change/student-focused scale (CCSF). There are no established normal values for the inventory as it is intended to be used in a relational way and may be dependent on context. An instructor may approach their teaching differently dependant of the subject, class type or other variable. The developers urge further investigators to obtain a description of the teaching context the respondent is using so that they can gain a clear picture of the respondent's perspective (Trigwell & Prosser, 2004).

Because most of the research on the ATI has been conducted by the developers of the questionnaire, there is little outside analysis of the instrument. Meyer & Eley (2006) critique the ATI and report some concerns. They state that gender bias is a concern because gender statistics were not given in the initial study or any of the follow up investigations of the instrument. They also cite concerns that there was a pre-determined focus by Trigwell & Prosser, potentially biasing the initial qualitative study. They argue that there could have been bias as the qualitative study was transformed into a questionnaire using factor analysis. Finally, the critique contends

that not enough information was given regarding the rationale used for item removal. Regarding the ability to generalize the results, they express concerns that the original respondents of the qualitative study were first-year university science teachers, however in further research on the quantitative instrument, the ATI authors use terms like "university teachers," implying that the respondents were more broad than they actually were (Meyer & Eley, 2006).

The use of the ATI is limited. Gibbs & Coffey (2004) examined a group of 104 teacher-trainees from eight countries and 20 universities. The teacher-trainees were all participating in a year-long training and the research found that the teacher-trainees became less teacher-focused and more student-focused while the control group became more teacher-focused. They also found that students took a deeper approach to learning when their teachers had been trained.

Postareff, Lindblom-Ylanne & Nevji (2007) surveyed 200 teachers at the University of Helsinki and determined that pedagogical training had a positive effect on the CCSF subscale on the ATI. Their participants were divided into four groups of increasing pedagogical training levels. Group 1 included those participants with 0 ECTS (European Credit Transfer System). Group 2 included those with 1-10 ECTS. Group 3 included those participants who had 11-30 ECTS. Group 4 included those participants with 30 or more ECTS. A statistically significant main effect was found for the CCSF subscale. The teachers with the most training had the highest CSSF scores, the highest self-efficacy scores, and the lowest ITTF scores.

The group scoring the second highest on the CCSF scale was the group with 0 ECTS. The group scoring the second highest on the self-efficacy scale was the group with no experience. This suggests that just after initial formal training in pedagogy, instructors became more teacher-focused and had lower self-efficacy than before they began training. The

researchers hypothesize that this effect was due to a greater awareness of teaching skills and abilities (or lack thereof) brought on by reflection and instruction in pedagogy. This research also confirmed Trigwell & Prosser's contention that the ITTF scale of the ATI is a distinct variable as it remained relatively constant for all groups in this study. This important research demonstrates that training does enhance student-focused instruction, however the changes happen slowly. Increases in student-focused methods will not come with short seminars and courses on pedagogy and, in fact, these short courses may only serve to diminish student-focused methods and the self-efficacy of the teacher.

Hendry, Lyon & Henderson-Smart (2007) reported that in 121 university teachers in Australia, those with a stronger CSSF approach to teaching were more positive about strategies to improve teaching and were more responsive to feedback from student evaluations. In contrast, those instructors with a higher ITTF approach had difficulty interpreting feedback from student evaluations.

Summary

The relatively short history of athletic training education as a profession logically means that research into effective qualifications and practices is not as rich as it could be. Research regarding classroom instruction is limited and there is very little information regarding the qualifications of current faculty or their effectiveness in the classroom. The ATI-R and the SEEQ are instruments that measure an instructor's approach to teaching and their instructional effectiveness as perceived by their students, respectively. Both instruments produce data that are reliable and valid. Investigating the relationship between these two instruments and the instructors' formal educational history will add insight into appropriate training of ATEP faculty.

CHAPTER THREE: METHODOLOGY

This study analyzed questionnaire data from athletic training faculty and student respondents in the State of Florida. This chapter will explain the study participants, instruments, data collection procedures and analysis.

Participants

Phase One

Faculty participants were determined using the Commission on Accreditation of Athletic Training Education (CAATE) online database of Florida's accredited athletic training programs ("Accredited programs," 2009). There are 13 CAATE accredited athletic training education programs (ATEPs) in Florida. Because of possible bias, the study did not include the researcher affiliated program. In addition, difficulties obtaining Institutional Review Board (IRB) permission from two Florida universities precluded their faculty from being contacted. Among the three excluded schools, there were eight faculty. Therefore, 10 programs were included in the study and 21 faculty were solicited. The contact information for each program director was obtained from the CAATE's publically accessible website. Each program director was initially contacted via email and asked to encourage their faculty to participate in the study (Appendix D). Each program director was asked to provide the names, emails and work addresses of the certified athletic trainers who were full-time faculty within their program so that those faculty could be solicited. Participation was sought from every full-time faculty member at each Florida ATEP who also held the certified athletic trainer (ATC) credential.

Phase Two

Phase two involved the students of the faculty participant. Each faculty participant who completed phase one was asked to have the students in one of their courses complete a questionnaire. Faculty were requested to have a student proctor distribute the questionnaire to those students who are over 18 years of age and who were in the same course they used as context for the phase one questionnaire. Student participant numbers were estimated to be 420 (21 faculty times approximately 20 students per course).

Instruments

Phase One Instruments

As part of phase one of the study, faculty were asked to complete the Approaches to Teaching Inventory (ATI-R) and demographic questions. It was anticipated that the ATI-R would take approximately ten minutes to complete and the demographics would take approximately ten minutes to complete.

The Approaches to Teaching Inventory (Prosser & Trigwell, 2007)

The ATI-R was intended to measure an instructors' approach to teaching in relation to another construct such as student learning outcomes, enthusiasm or organization (Trigwell & Prosser, 2004; Trigwell et al., 2005). The ATI-R contains 22 statements with responses based on a Likert scale of 1-5 (1 = "only rarely" to 5 = "almost always").

There are two 11 item subscales within the ATI-R. The first is the information transfer/teacher-focused scale (ITTF). Example questions from the ITTF scale include "I feel it is important to present a lot of facts to students so that they know what they have to learn for the subject" and "I structure my teaching in this subject to help students pass the formal assessment

items." The second subscale is the conceptual change/student-focused scale (CCSF). Example questions from the CCSF scale include "In teaching sessions for this subject, I deliberately provoke debate and discussion" and "I see teaching as helping students develop new ways of thinking in this subject."

There are no established normal values for the inventory as it is intended to be used in a relational way and may be dependent on context. The respondent is asked to choose a context course so that the researcher can gain a clear picture of the respondent's perspective (Trigwell & Prosser, 2004). Permission to use the ATI-R was granted by Keith Trigwell via email August 18, 2008 (Appendix C).

Reliability and validity.

Trigwell & Prosser (2004) confirmed the two-factor structure using responses from the ATIs of 650 cases from 10 research studies and 15 countries. A wide range of disciplines were represented. Using principal components with Varimax rotation, the researchers were able to demonstrate a good fit for the two-factor structure. All eight CCSF items loaded positively (>.30) under one factor and all eight ITTF items loaded positively (>.30) under a second factor. The CCSF factor (factor one) contains only one ITTF item that is negatively loaded. Cronbach's alpha values were .75 (CCSF approach) and .73 (ITTF approach).

Demographic Questions

Respondents were also asked to complete 20 demographic items including:

- Years of experience teaching at least two courses per semester in an ATEP
- Years of experience working directly with patient/athlete care
- College in which the ATEP is housed

- Description of current position (tenured, tenure-track, non-tenure track)
- Promotion and tenure emphasis on teaching, research/scholarship, and service
- Number of hours spent on certain tasks related the faculty member's position
- Type of undergraduate degree (classification, major, specialization, number of education courses)
- Type of master's degree (classification, major, number of education courses)
- Type of doctoral degree (classification, major, number of education courses)
- Completion of a K-12 certification program
- Age
- Gender
- Ethnicity

Phase Two Instruments

Course Demographics

A short six item questionnaire was included for the instructor to complete. Four questions were in regard to the type of course and number of students present the day the questionnaire was administered. Two items asked the instructor to identify what date the questionnaires were administered and what time of day they were administered.

The Students' Evaluation of Educational Quality (March, © 2002)

Students enrolled in a class instructed by the faculty respondent were asked to complete the phase two questionnaire, the Students' Evaluation of Educational Quality (SEEQ) (Marsh, © 2002). The SEEQ was developed by Herbert Marsh (1982) and measures nine factors:

1. Learning/Academic Value (four items);
2. Enthusiasm (four items);
3. Organization/Clarity (four items);
4. Group Interaction (four items);
5. Individual Rapport (four items);
6. Breadth of Coverage (four items);
7. Examination/Grading (four items);
8. Assignments/Readings (two items);
9. Overall Rating (two items)

The instrument contains 32 questions with responses based on a Likert scale with values ranging from 1-9 (1 = "strongly disagree" to 9 = "strongly agree"). Table 1 shows example questions from each of the nine subscales.

Table 1

Example Questions from SEEQ

Subscale	Example Question
Learning/Academic Value	You found the course to be intellectually challenging and stimulating.
Enthusiasm	Staff member's style of presentation held your interest in class.
Organization/Clarity	Class materials were well prepared and carefully explained.
Group Interaction	Students were encouraged to participate in class discussions.
Individual Rapport	Staff member made students feel welcome in seeking help/advice in or outside of class.
Breadth of Coverage	Staff member presented points of view other than his/her own when appropriate.
Examination/Grading	Feedback on assessments/graded material was valuable.
Assignments/Readings	Readings, assignments, etc. contributed to appreciation and understanding of the unit.
Overall Rating	Overall, how does this staff member compare with other staff members at this institution? (1= very poor, 9 = very good)

The SEEQ also collects basic information regarding the course being evaluated and allows open-ended responses to two questions relating to the strengths and weaknesses of the instructor.

The SEEQ is an adaptable instrument as Marsh provides 271 additional questions in an item bank. He invites universities and instructors to tailor for different teaching contexts by the addition of up to ten extra questions (*SEEQ: Students' Evaluation of Educational Quality as operationalised at the University of Western Sydney*, n.d.). The survey used in this study replaced the final two questions with two of the additional questions. The final two questions in the original survey asked for comparisons between the course/instructor and other courses/faculty at the university. This study did not intend to compare instructors or courses, therefore the questions were replaced with "Overall, I am satisfied with the quality of teaching in this unit" and "Overall my experiences with this staff member have been positive." The word "unit" was exchanged for "course" to account for cultural vocabulary differences. Background and course characteristics sections, normally used at the end of the SEEQ, were not used as they did not apply to the research questions in this study. Permission to use the SEEQ was granted by Herbert Marsh, via email August 18, 2008 (Appendix C).

Reliability and validity.

The average student response score is found to have excellent reliability and reasonable validity (Coffey & Gibbs, 2001; Marsh, 1984). The SEEQ consists of nine factors. Marsh & Hovecar (1991) analyzed the multidimensional approach. Using factor analysis, they examined the SEEQs taken from 24,158 courses containing 21 subgroups of varying instructor level, course level and discipline. Each of the 21 analyses revealed that the nine SEEQ factors were identified, thus supporting the multidimensional assessment of teaching. Using principal

components factor analysis with a Varimax rotation, Coffey & Gibbs demonstrated a robust factor structure using a modified SEEQ containing 6 of the 9 scales. 1297 students at nine institutions in the United Kingdom completed the modified SEEQ and results demonstrated that the summed score of the SEEQ is a highly reliable ($\alpha = .94$) indicator of educational quality.

Marsh (1984) published a comprehensive summary of the literature and determined that methodologically sound evaluations, such as the SEEQ, are not unduly influenced by outside factors such as class type, expected grade, and many other factors sometimes assumed to bias scores. Cohen (1981) performed a meta-analysis of multi-section validity studies that supported Marsh's assertion that course difficulty did not unduly influence the instructor rating. The meta-analysis included 41 documents that used 68 multi-section studies. Twenty-eight of these studies included an evaluation of the correlation between the difficulty level of the course and the rating of the instructor. The meta-analysis concluded that the average correlation between overall instructor rating scores and student achievement was -.02.

The SEEQ class average response score was found to be primarily a function of the instructor, and not of the course being taught. Path analysis, conducted by Marsh (1982), demonstrated that the teacher's effect is about five times larger than the course effect. Marsh used a sample of 1364 SEEQ evaluations. He created 341 "sets" of evaluations. Each set included two evaluations of one instructor teaching the same course on two occasions (Course A and Course A2), one evaluation of the same instructor teaching a different course (Course B), and one evaluation of a different instructor teaching the same course (Course A). The results showed that the class average response correlations between scores of one instructor teaching the same course (on two different occasions) was .7. Class average correlations between two

different instructors teaching the same course were .14. Correlations between the scores of two different courses with the same instructor were .52. The correlation values were highest for the items in the "overall instructor" and "instructor enthusiasm" subscales, suggesting that an instructor who is effective in one course is highly likely to be effective in another course and that the SEEQ is not unduly influenced by confounding course effects.

The estimated reliability of the class average response from the SEEQ factors is high. Marsh (1987) states that the estimated reliability is .95 for 50 students, .90 for 25 students, and .74 for ten students. Stability was assessed by Marsh (2007) using a 13 year longitudinal study of 195 university teachers. Marsh took his sample from an archive of 50,000 class average ratings from one large university in the United States. He sampled all teachers who had been evaluated at least once a year during the past 13 years. The sample teachers came from 31 different departments, and the study included the evaluations of both undergraduate and graduate courses. Courses included science, social science, and humanities, and each teacher was evaluated in an average of 30.9 courses. Marsh found that the class mean scores, as well as covariance stability, of student evaluations were highly stable over the 13 year period. In addition, using a multilevel (7 levels) growth model for statistical analysis, Marsh found that teachers' effectiveness did not change over time. The stability of teaching effectiveness ratings were stable for both graduate and undergraduate courses, experienced and early career teachers, as well as teachers of all levels of effectiveness. Marsh concluded that "across the spectrum of good to bad teaching, teachers did not get systematically more effective with experience, but neither did they become less effective" (p. 786).

Data Collection and Procedures

During the first week of January 2009, an email letter was sent to program directors of 10 Florida ATEPs. (Appendix D). This letter explained the research and sought the endorsement of the program director. The letter explained the importance of gaining the participation of all full-time ATC faculty at their institution. The program directors were asked to reply to the email with a list of all full-time ATC faculty at their institution along with email/phone contact information and a work mailing address. Program directors were asked to provide this information within a week. During the second week, a second email request for participation was sent to three program directors who did not respond to the first email.

Phase One

Once program directors submitted the names of all full-time faculty who work in their ATEP, the faculty were contacted using Dillman's five contact method (Dillman, 1999). On January 23, an initial email was sent to prospective participants to generate interest in the research (Appendix D). This initial email explained the general scope of the study, a brief explanation of the phase one and two methods, information on confidentiality and consent, as well as contact information for the researcher, advisors and the affiliated IRB. A formal letter was also sent by mail that day. This letter included the same information as the email (Appendix D). In addition, the letter included an informed consent form (Appendix F), the phase one questionnaire (Appendix E), and two pre-paid researcher-addressed envelopes. The phase one questionnaire contained two sections; the Approaches to Teaching Inventory (ATI-R) and a set of demographic questions. Faculty were asked to complete the survey within four weeks of its receipt and return it via the researcher-addressed and pre-paid envelope. A separate envelope was

provided for the consent form so that the only link to the data was the codes on the questionnaire and consent form.

During the month of February, three reminders were sent to all participants (Appendix D). The first reminder was sent to 12 participants by email two weeks after the questionnaire was sent. The second reminder was sent to seven respondents by email two weeks after the first, and the third reminder was sent to four respondents by email. In each reminder, participants were asked to request a replacement questionnaire if theirs was misplaced. A total of five contacts were made (six contacts for program directors) in an attempt to generate the highest response rate possible.

Phase Two

Faculty who participated in phase one of the study were contacted via email during the second week in March 2009 to remind them of the second phase of the study. The email indicated that the SEEQ questionnaires were recently sent to them by postal mail. The phase two postal mailing included a small questionnaire for the instructor, a set of SEEQ questionnaires and consent forms for the students in the course, instructions for the student-proctor and a pre-paid researcher-addressed envelope.

The faculty instructions requested that the SEEQ (Appendix E) be distributed sometime in March, to students in the same course that was used as context for the phase one questionnaire. Student instructions were provided requesting that a selected student distribute the consent forms and SEEQ to students in the chosen course. Participants were given information on informed consent (Appendix G) and reminded that their answers were anonymous to the researcher and data would be reported in aggregate. The student-proctor was asked to read the

instructions to the class and allow 15 minutes for the class to complete the questionnaire. The instructions stated that the student should place all of the evaluations in the pre-paid and researcher-addressed envelope, seal it, sign across the seal, and return it to their teacher for mailing. During late-March, a reminder email was sent (Appendix D) to all participating faculty. Two additional reminders were sent in April as the semester was ending. Faculty were required to submit their data by the end of the semester.

Consent and Confidentiality

Phase One

Informed consent from faculty participants was gained at the time of phase one data collection and documented via signatures on returned consent forms. The presence of a returned consent form indicated to the researcher that the participant did not need to be sent a reminder. The consent forms and identifying signatures will be kept in a locked filing cabinet at the researcher's residence for the required three years and then will be destroyed by the researcher. Faculty were assigned a code that was placed on their consent forms and questionnaires. This enabled their phase one data to be linked to the data from phase two. The codes were placed in the upper right corner of the phase one questionnaire, and the list of codes was kept in a password protected computer file at the researcher's residence. Faculty codes were destroyed by the researcher once all data was collected.

Phase Two

The student proctor was asked to distribute the informed consent document, read the directions, and allow time for students to complete the questionnaire. Students' consent was evident by completion of the SEEQ questionnaire. A waiver of documentation of consent for

students was authorized by the University of Central Florida IRB. Students' names were not collected. Their answers were not accessible to their instructor at the time of data collection and will not be made accessible at any time. Student questionnaire responses are linked to the phase one instructor data by the code written on the top right of both questionnaires.

Data Analysis

The first question addresses the possible connection between the amount of formal educational coursework and the teacher's approach to teaching. The ATI-R's two subscales are designed to measure the extent that a teacher is student-centered or teacher-centered.

The first question asked, "Is there a correlation between the number of formal educational courses taken by ATEP faculty and their approach to teaching?" This question was divided into two sub-questions:

A. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their score on the CCSF subscale? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the faculty numeric mean score on the CCSF subscale (total of all 11 CCSF items [Q# 3, 5, 7, 8, 13, 14, 15, 17, 18, 20, 21]) on the ATI-R.

B. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their score on the ITTF subscale? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the faculty numeric

mean score on the ITTF subscale (total of all 11 ITTF items [Q #1, 2, 4, 6, 9, 10, 11, 12, 16, 19, 22]) on the ATI-R.

The second question addressed the possible connection between the amount of formal educational coursework and their students' evaluation of their instruction. The second question asked, "Is there a correlation between the amount of formal educational courses taken by ATEP faculty and their students' evaluations of instruction?" This question was divided into ten sub-questions:

A. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and the class mean of the total score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean score for all items on the SEEQ.

B. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Learning/Academic Value" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Learning/Academic Value" (total of all "Learning/Academic Value" items [Q# 1, 2, 3, 4]) on the SEEQ.

C. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Staff Member Enthusiasm" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees

[Q# 16]) and the class mean subscale score for "Staff Member Enthusiasm" (total of all "Staff Member Enthusiasm" items [Q# 5, 6, 7, 8]) on the SEEQ.

D. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Organization/Clarity" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Organization/Clarity" (total of all "Organization/Clarity" items [Q# 9, 10, 11, 12]) on the SEEQ.

E. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Group Interaction" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Group Interaction" (total of all "Group Interaction" items [Q# 13, 14, 15, 16]) on the SEEQ.

F. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Individual Rapport" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Individual Rapport" (total of all "Individual Rapport" items [Q# 17, 18, 19, 20]) on the SEEQ.

G. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Breadth of Coverage" subscale score on the SEEQ? A

Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Breadth of Coverage" (total of all "Breadth of Coverage" items [Q# 21, 22, 23, 24]) on the SEEQ.

H. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Examination/Grading" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Examination/Grading" (total of all "Examination/Grading" items [Q# 25, 26, 27]) on the SEEQ.

I. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Assignments/Readings" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Assignments/Readings" (total of all "Assignments/Readings" items [Q# 28, 29]) on the SEEQ.

J. Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Overall Rating" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Overall Rating" (total of all "Overall Rating" items [Q# 28, 29]) on the SEEQ.

The third question asked, “Is there a relationship between faculty’s approach to teaching and students’ evaluations of instruction?” This question was separated into two sub-questions:

A. Is there a correlation between the total CCSF subscale score and the class mean SEEQ total score? A Pearson correlation coefficient was generated between the CCSF subscale (total of all 11 CCSF items [Q# 3, 5, 7, 8, 13, 14, 15, 17, 18, 20, 21]) and the class mean score for all items on the SEEQ.

B. Is there a correlation between the total ITTF subscale score and the class mean SEEQ total score? A Pearson correlation coefficient was generated between the ITTF subscale (total of all 11 ITTF items [Q # 1, 2, 4, 6, 9, 10, 11, 12, 16, 19, 22]) and the class mean score for all items on the SEEQ.

CHAPTER FOUR: RESULTS

The purpose of the study was to investigate the correlations among an instructor's approach to teaching, student evaluation of instruction outcomes and the amount of formal educational coursework a teacher has completed. Certified athletic trainers, teaching full-time in a CAATE accredited ATEP in Florida, were asked to complete two questionnaires. The first consisted of the Approaches to Teaching Inventory (ATI-R) and demographic questions. The second questionnaire included questions regarding the course in which the questionnaire was given and enough questionnaires to distribute to all of the students enrolled in that course. The students completed the Students' Evaluation of Educational Quality (SEEQ), a questionnaire that evaluates the students' perception of the teacher. The findings of each research question are preceded by instrument analysis and demographic analysis.

Response Rate

A total of 10 Florida ATEP program directors were contacted in order to ascertain the names of each full-time faculty teaching within their programs. Two ATEPs in Florida (6 faculty total) were unable to participate due to complications gaining permission from their IRBs and, therefore, their program directors were not contacted. The faculty at the researcher affiliated program and one faculty member who sat on the researcher's dissertation committee were also not included (3 faculty total). A total of 21 questionnaires were mailed to participants. One questionnaire was completed by a person who was not a certified athletic trainer. Their data was not calculated in the results. One questionnaire was not returned. Therefore, the study gained a total phase one response rate of 95% (19 of 20). Including the faculty at schools that were unable

to participate, the study was able to gain phase one participation from 66% (19 of 29 faculty) of all faculty teaching full-time in a Florida ATEP.

SEEQs were completed by the students of 84% (16 of 19) of the faculty who participated in phase one of the study. Therefore, the study was able to gain SEEQ data from the students of 55% (16 of 29) of all full time faculty athletic trainers teaching at ATEPs in Florida. All but two respondents reported that they gained full participation from every student in attendance. A total of 202 students completed the SEEQ questionnaire. The mean number of SEEQs completed by students per faculty member was 12.56. Class sizes ranged from 27 to 5 students per class.

Reliability and Validity of the Instruments

Approaches to Teaching Inventory

Cronbach's alpha was calculated for both of the ATI-R subscales. The information transfer/teacher-focused (ITTF) subscale was measured using the following ATI-R items: 1, 2, 4, 6, 9, 10, 11, 12, 16, 19, and 22. The conceptual change/student-focused (CCSF) subscale was measured using the following ATI-R items: 3, 5, 7, 8, 13, 14, 15, 17, 18, 20, and 21. The ITTF subscale value was .795 and the CCSF subscale value was .854. These values are considered to be "good" by George and Mallery (2003). They are comparable, but higher than reported by both Trigwell, Prosser & Waterhouse (1999) and Trigwell & Prosser (2004). Those researchers reported reliability estimates in the range of .67 to .75 for the two subscales respectively.

Students' Evaluation of Educational Quality

Cronbach's alpha was calculated for each of the SEEQ subscales. Two hundred and two students completed the SEEQ questionnaire. One student's questionnaire was omitted from the analysis because it was an outlier. The questionnaire appeared to be completed incorrectly, with

all values given as “strongly disagree” or “disagree” despite very positive and exclusively complementary comments on the free response section. Therefore, the analysis reflected 201 students’ SEEQ questionnaire data. The total SEEQ scores and all subscale scores were judged to be very reliable for the students to whom the SEEQ was given. Item numbers and Cronbach’s alpha values are presented in Table 2.

Table 2

Reliability Estimates for SEEQ

	Item Numbers	Cronbach’s Alpha
Learning/Academic Value	1, 2, 3, 4	.867
Staff Member Enthusiasm	5, 6, 7, 8	.914
Organization/Clarity	9, 10, 11, 12	.867
Group Interaction	13, 14, 15, 16	.875
Individual Rapport	17, 18, 19, 20	.908
Breadth of Coverage	21, 22, 23, 24	.854
Examination/Grading	25, 26, 27	.928
Assignments/Readings	28, 29	.894
Overall Rating	30, 31	.905
Total SEEQ Score	All Items	.971

Evidence of construct validity was sought using exploratory factor analysis of the SEEQs returned in the study. Exploratory factor analysis necessitates 10-15 respondents per variable (Tabachnick & Fidell, 2007). The SEEQ was designed to have nine variables. Since this study

had 201 responses, exploratory factor analysis was appropriate. The first step in determining the factorability of the 9 subscale constructs was to review the communalities. There were no communalities above 1.0. The factorability of the nine subscales was examined using the following criteria: 1) reviewing correlation of items; 2) Kaiser-Meyer-Olkin measure of sampling adequacy (overall and individual); 3) Bartlett's test of sphericity; and 4) communalities.

First, all items correlated at least .30 with at least one other item. Second, Kaiser-Mayer-Olkin measure of sampling adequacy was .941, larger than the recommended value of .50. In addition, measures of sampling adequacy values were all above .827 and interpreted as meritorious values (Hair, Black, Babin, Anderson, & Tatham, 2006). Third, Bartlett's test of sphericity was significant (X^2 (465) = 5884.212, $p < .001$). Fourth, an additional criterion commonly used to determine factorability is that communalities should be above the recommended value of .30. When this happens, it presents evidence of shared variance among the items. All communality values were above the recommended level. Given that all factorability criteria were met, it was reasonable to proceed with the factor analysis using all nine subscales.

A Promax rotation was selected because there were large correlations among the questions. The analysis revealed 5 factors with Eigenvalues over 1. One factor loaded so highly that it explained 55% of all the variable variances. All five factors explained 74% of the variable variance, and 69% of the variance once extracted. Interpreting the underlying constructs behind the five factors was not possible because many items were loaded under multiple factors and each factor had many differing items loading under it. These results raise questions about the

internal structure validity of the current version of the SEEQ (nine factors) as used with the population in the current study. However, Coffey and Gibbs (2001) performed confirmatory factor analysis on an earlier version (6 factors) of the SEEQ using Principal Components with Varimax rotation. That analysis found the appropriate 6 factors and confirmed several earlier analyses by Marsh (Marsh, 1982, 1984). Scores from the SEEQ are widely accepted as reliable and valid. However, given the SEEQ subscale construct validity concern in this study, the results of the subscale analysis should be interpreted with caution.

Demographic Analysis

Several demographic variables were asked on the phase one questionnaire. These variables included:

- Years of experience teaching at least two courses per semester in an ATEP
- Years of experience working directly with patient/athlete care
- College in which the ATEP is housed
- Description of current position (tenured, tenure-track, non-tenure track)
- Promotion and tenure emphasis on teaching, research/scholarship, and service
- Number of hours spent on certain tasks related the faculty members' position
- Undergraduate degree demographics (classification, major, specialization, number of education courses)
- Master's degree demographics (classification, major, number of education courses)
- Doctoral degree demographics (classification, major, number of education courses)
- Completion of a K-12 certification program
- Age

- Gender
- Ethnicity
- Enrollment of context course.

Years of Experience Teaching and Patient Care

Of the 19 participants, the mean years of experience teaching at least two courses per semester in an ATEP was 8.84 years (*SD* = 5.79). The values ranged from 1 year to 19 years. The mean years of experience working directly with patient care was 11.5 years (*SD* = 7.06). The values ranged from 2 to 27 years.

College Housing the ATEP

The respondents reported that their ATEPs were housed in a wide variety of colleges. Ten types of colleges were represented in all. Four (21.1%) reported that their ATEP was housed in a "College of Medicine." Three (15.8%) reported being housed in a "College of Education." Two (10.5%) schools reported being part of a College of Human Sciences" and two (10.5%) reported being part of a "College of Arts and Sciences." Two (10.5%) reported being a part of a "College of Natural and Health Sciences" and two (10.5%) reported being a part of a "College of Allied Health." One ATEP was reported in each of the following: "Health and Human Performance" (5.3%); "Math, Science and Technology" (5.3%); "Exercise and Applied Physiology" (5.3%); and "Health Sciences" (5.3%).

Description of Current Position (Tenured, Tenure-track, Non-tenure Track)

The majority of respondents classified themselves as non-tenure track. Nearly seventy nine percent (78.9%; *n* = 15) of full-time ATC ATEP faculty in Florida are non-tenure track. Three (15.8%) were currently classified as tenure-track and 1 respondent was tenured (5.3%).

Promotion and Tenure Emphasis on Teaching, Research/Scholarship, and Service

The emphasis on teaching, research/scholarship and service reported by each respondent are presented as Table 3. Two respondents failed to respond to the question. Therefore the percentages are taken from the 17 remaining responses.

Table 3

Emphasis of Teaching Research/Scholarship and Service on Promotion and Tenure

	Not at All	Small Extent	Some Extent	Great Extent
Teaching	0%	0%	5.9%	94.1%
Research / Scholarship	23.5%	23.5%	11.8%	41.2%
Service	0%	23.5%	47.1%	29.4%

Number of Hours Spent on Certain Tasks Related to the Faculty Members' Position

Respondents seem to spend the most time performing academic administration. Fifty percent (n = 9) of respondents reported that they spent 10 or more hours on "Academic Administration," whereas only 32.5% (n = 6) reported that "Preparing to Teach" or "Teaching" took 10 or more hours. However, all respondents (n = 19) reported teaching at least 4-6 hours and 88.9% (n = 16) reported spending at least 4-6 hours preparing to teach. Table 4 illustrates the break down in respondent's time by specific category. The values were taken from a sample size of 18 as one respondent did not answer this question.

Table 4

Number of Hours Spent on Certain Tasks Related to the Faculty Members' Position

	0 Hours	1-3 Hours	4-6 Hours	7-9 Hours	10 or More Hours
Preparing to Teach*	0%	11.1%	50%	22.2%	16.7%
Teaching	0%	0%	36.8%	47.4%	15.8%
Academic Administration*	0%	11.1%	16.7%	22.2%	50%
Advising*	11.1%	61.1%	22.2%	0%	5.6%
Research*	38.9%	33.3%	16.7%	0%	11.1%
Service to University or Profession	0%	52.6%	36.8%	0%	10.5%
Athletic Administration*	94.4%	0%	5.6%	0%	0%
Working with Patients/Athletes*	66.7%	22.2%	11.1%	0%	0%

Undergraduate Degree Demographics

Respondents were requested to describe their undergraduate degree designation and major. One respondent did not answer this question appropriately (e.g. “36 hours into my doctorate”) and their data was removed. Therefore, the percentages were calculated using data from 18 respondents. The majority of full-time athletic trainers teaching in a Florida ATEP

describe having a Bachelor of Science (BS) degree (94.4%; *n* = 17) while only 5.6% (*n* = 1) have a Bachelor of Arts (BA) degree.

Undergraduate degree majors were varied among four degree classifications. Two respondents selected two classifications of majors. Their data was removed from the analysis due to apprehension regarding the meaning of their response and the speculation that other respondents may have chosen two major classifications if allowed to do so. Therefore, the percentages were generated using 17 respondents' data. The undergraduate major classifications for the respondents are summarized as Figure 1.

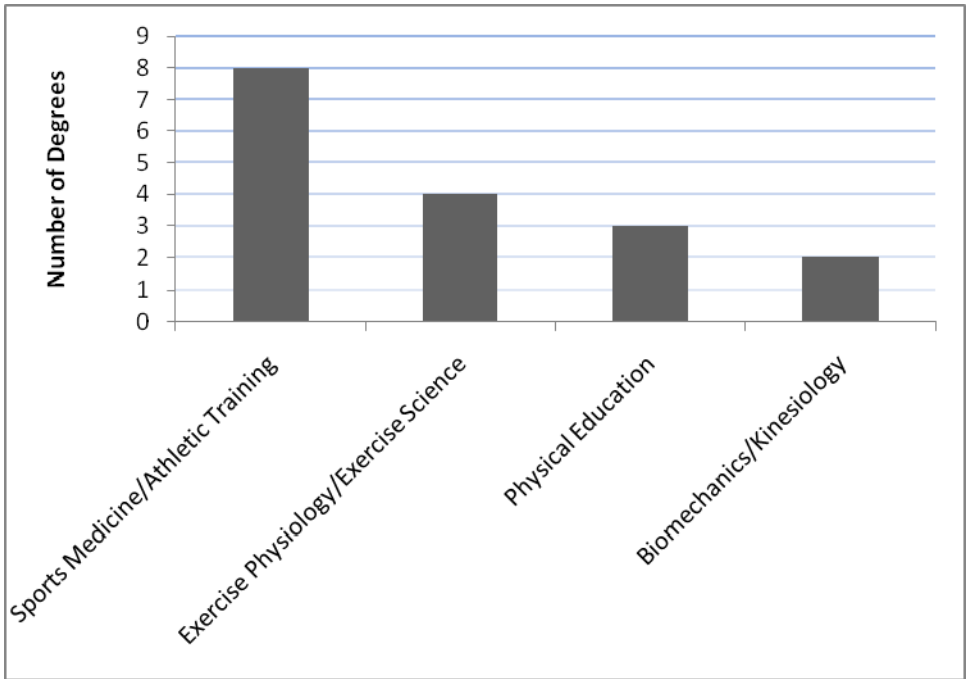

Figure 1. Type of bachelor's degrees reported by respondents

The largest number of respondents (47.1%; *n* = 8) reported having a degree of "Sports Medicine/Athletic Training." The next most common major was "Exercise Physiology/Exercise Science" (23.5%; *n* = 4). Three respondents (17.6%) reported having a degree in "Physical Education" and 2 respondents (11.8%) reported having a degree in "Biomechanics/Kinesiology."

No respondents chose “Education,” “Health” or “Other.” 52.6% (10 of 19) of respondents reported that their undergraduate degree did not include a specialization in education while 47.4% (9 of 19) of respondents did have an undergraduate degree that included a specialization in education.

Participants were asked an open ended question regarding the number of education courses they took as a part of their undergraduate degree. The term “course” was defined as “any semester-long two to four credit instructional unit.” One respondent did not answer the question; therefore, the percentages were generated using 18 respondents. Two respondents answered the question using the value of “10+,” instead of a true number. These values were entered as 10, since that is the greatest number of courses that the researcher can assume was taken. The mean number of education courses reported as part of the undergraduate degree was 4.78 courses (*SD* = 4.39). Values ranged from 0 courses to 12 courses.

Master’s Degree Demographics

Respondents were asked to classify their master’s degree as “MA’, “MEd,” “MS” or “other.” The majority of respondents (78.9%; *n* = 15) obtained an MS degree. The remaining four respondents were evenly divided between an MA degree (10.5%; *n* = 2) and an MEd degree (10.5%; *n* = 2).

Master’s degree majors varied among eight types. Table 5 reflects the quantity and percentages of master’s degrees. Three respondents selected two classifications of majors. Their data were removed from the analysis due to apprehension regarding the meaning of their response and the speculation that other respondents may have chosen two major classifications if allowed to do so. Therefore, the percentages were generated using 16 respondents’ data.

Table 5

Description of Master's Degree Frequencies and Percentages

Major Classification	Frequency	Percentage
Exercise Physiology/Exercise Science	5	31.2%
Sports Medicine/Athletic Training	4	25%
Biomechanics/ Kinesiology	2	12.5%
Education	1	6.2%
Health Education	1	6.2%
Physical Therapy	1	6.2%
Sports Administration	1	6.2%
Physical Education	1	6.2%

Participants were asked an open ended question regarding the number of education courses they took as a part of their master's degree. The term "course" was defined as "any semester-long two to four credit instructional unit." One respondent answered the question using the value of "2 or 3," instead of a true number. This item was entered as 2, as that is the greatest number of courses that the researcher can assume was taken. The mean number of education courses reported as part of the masters' degree was 1.68 courses (SD = 3.64). Values ranged from 0 courses (n = 13) to 15 courses (n = 1).

Doctoral Degree Demographics

Respondents were asked to classify their doctoral degree as "DPT," "EdD," "PhD," or "other." In addition, the choices of "I am currently in process of earning a doctoral degree" and "I have not completed a doctoral degree" were given. Those in progress were asked to specify the type of degree they are expected to earn. All but four (78.9%; $n = 15$) of the respondents had either completed, or were in progress with a doctoral degree. Six respondents classified their earned degree as a PhD (31.6%). Two respondents classified their earned degree as an EdD (10.5%). 36.8% ($n = 7$) of respondents were currently in progress with a doctoral degree. Including only the earned and in progress doctoral degrees ($n = 15$), 60% ($n = 9$) of respondents reported a PhD, 26.7% ($n = 4$) of respondents reported an EdD, and 6.7% ($n = 1$) of respondents reported a DHSc. One respondent supplied their major designation instead of their degree designation, and therefore, their degree designation is unknown (6.7%).

Doctoral degrees were varied. The four respondents who stated that they have not earned and are not in progress with a doctoral degree were excluded from this question. One respondent supplied two answers to the question. Their data was removed from the analysis due to confusion regarding the meaning of their response and the speculation that other respondents may have chosen two major classifications if allowed to do so Among the 14 remaining respondents, 42.8% ($n = 6$) reported earning degrees related to education. Figure 2 illustrates the diversity among degrees for the 14 remaining respondents.

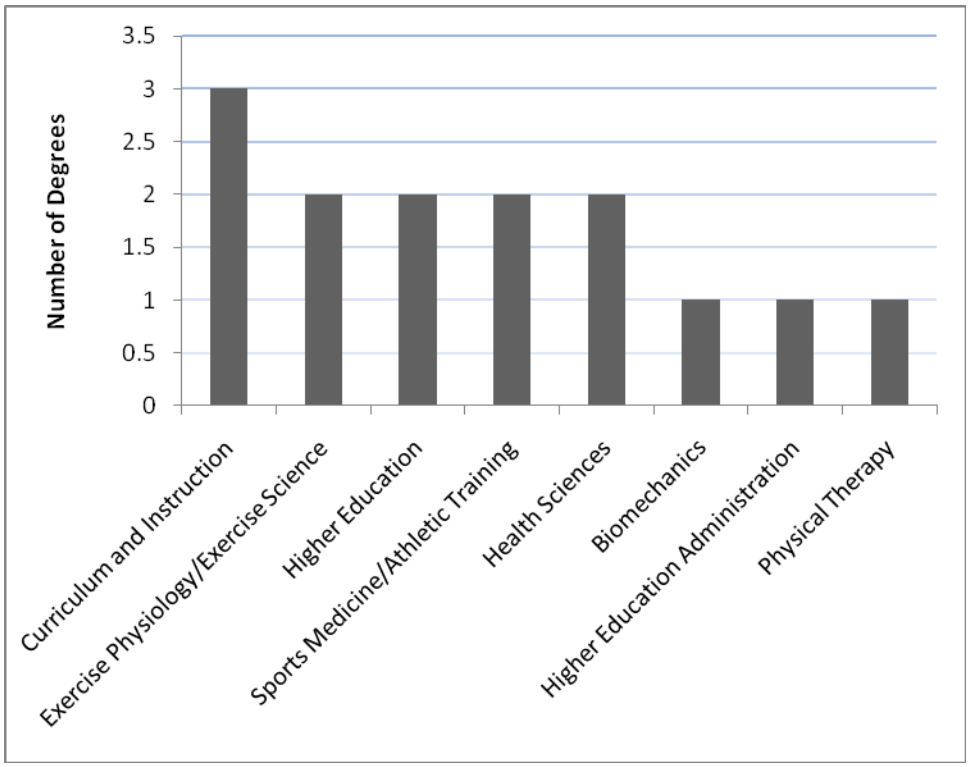

Figure 2. Doctoral degree majors

Because the question was "open ended," when asked about the number of education courses contained within their doctoral degree, some respondents did not give a clear value. One respondent answered "10+" and another answered "25+." Since it is not clear exactly how many courses they took, but it can be surmised that it was at least the number they indicated, the data was calculated using the lowest number of courses the researcher can assume was taken. Therefore, the item 10+ was entered as 10, and the item 25+ was entered as 25.

The mean number of education courses reported as part of a doctoral degree was 5.14 courses (SD = 6.84). Values ranged from 0 courses to 25 courses. One respondent did not answer the question, therefore the data was generated using the 14 responses from those who have completed or were in progress with a doctoral degree.

Completion of a K-12 Certification Program

Respondents were asked whether they completed a K-12 teacher certification program or alternate certification program. 42.1% (n = 8) of respondents completed a K-12 teacher certification program or alternate certification program while 57.9% (n = 11) did not.

Age, Gender and Ethnicity

The mean age of respondents was 39.2 years old (n = 19, SD = 8.03). Ages ranged from 26 years old to 52 years old. The ages presented a normal distribution (skewness = .123, SE = .524; kurtosis = -1.334, SE = 1.014). There were no outliers. The group is represented by 57.9% (n = 11) females and 42.1% (n = 8) males. 89.5% (n = 17) of respondents reported their race/ethnicity as "White." The remaining respondents (10.6%, n = 2) selected a minority classification.

Enrollment of Context Course

In order to send the appropriate number of questionnaires for phase two, respondents were asked to report the number of students in the course they used as context for the phase one questionnaire. The data shows that the mean number of enrolled students for the courses used as context for this questionnaire was 17.6 students (SD = 12.2). The data ranged from 5 students to 51 students. The data was within normal limits (skewness = 1.127, SE = .524; kurtosis = 1.474, SE = 1.014). It is important to note that the respondent who reported an enrollment of 51 students in their course later indicated that only 11 students were given an SEEQ (39 SEEQs were returned uncompleted). The researcher is not certain whether the respondent gave an improper value of enrollment, had 39 students refuse to participate in the study, or chose a different course as context for the study.

Analysis of Research Questions

Question One

The first question addresses the possible correlation between the amount of formal educational coursework and the teacher's approach to teaching. Pearson correlations contain the assumption that the data are random samples. The samples in this study represent nearly every Florida ATEP faculty who is full time and is an athletic trainer. Therefore, it is possible that a violation of the assumptions occurred if the population of ATEP faculty in Florida is not representative of the population as a whole.

The first question asked, "Is there a correlation between the number of formal educational courses taken by ATEP faculty and their approach to teaching?" This question was divided into two sub-questions:

Sub-question A

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their score on the CCSF subscale? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the mean numeric response on the CCSF subscale (mean of all CCSF items [Q# 3, 5, 7, 8, 13, 14, 15, 17, 18, 20, 21]) on the ATI-R.

The summed total of education courses was determined. The researcher treated the data as ratio level data and used the same adjustments that were used earlier to determine the number of courses in each of the degree levels (ex. "10+ courses was treated as 10 and "2 or 3 courses" was treated as 2). The mean from all respondents was 11.06 courses. The standard deviation was

10.33 courses. The range was 40 courses with a minimum number of 0 courses reported and a maximum of 40 courses reported. The data was slightly positively skewed and slightly leptokurtic (skewness = 1.466, *SE* = .550; kurtosis = 2.687, *SE* = 1.063). Shapiro-Wilk indicated non-normality ($p = .025$). One respondent (#10) reported 40 courses. This value was considered to be an outlier. When the outlier was removed, the data became normal with a mean of 9.25 courses ($n = 16$; $SD = 7.39$; skewness = .595, $SE = .564$; kurtosis = -.379, $SE = 1.091$; Shapiro Wilk = .938, $p = .328$). The range was 25 courses with a minimum of 0 courses and a maximum of 25 courses.

The mean values of the CCSF subscale were generated. The group of respondents mean score on the CCSF subscale was 3.79 ($n = 19$; $SD = .584$). The data demonstrated a normal distribution (skewness = -.835, $SE = .524$; kurtosis = .106, $SE = 1.014$; Shapiro Wilk = .925, $p = .141$). There was one outlier (#12) that had a much lower value on the CCSF subscale than the other respondents. The decision was made to keep this data as there is no reason to suspect that it is not accurate and the dataset remained normal with its inclusion.

A Pearson product-moment correlation coefficient was generated to determine whether the mean numeric score on the CCSF subscale is correlated to the number of education courses completed. The two variables are not statistically significantly correlated ($r\ (14) = .373$, $p = .155$). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 3 shows a positive relationship between the number of education courses taken and their CCSF mean score.

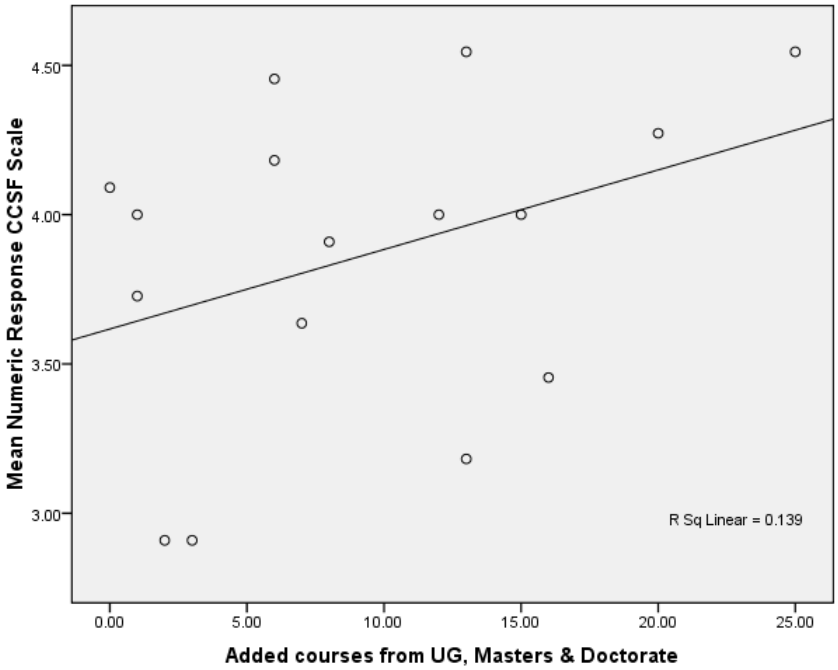

Figure 3. CCSF score and number of education courses

Sub-question B

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their score on the ITTF subscale? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the mean numeric response on the ITTF subscale (mean of all ITTF items [Q# 1, 2, 4, 6, 9, 10, 11, 12, 16, 19, 22]) on the ATI-R

The mean values of the ITTF subscale were generated. The group of respondents' mean scores on the ITTF subscale was 3.98 (*SD* = .486). The skewness and kurtosis values suggested a relatively normal distribution, however Shapiro Wilk's formal test of normality suggested non-normality (skewness = -.244, *SE* = .524; kurtosis = -1.646, *SE* = 1.014; Shapiro Wilk = .876, *p* =

.019). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean numeric score on the ITTF subscale is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (14) = .325, p = .219). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 4 shows a positive relationship between the number of education courses taken and their ITTF mean score.

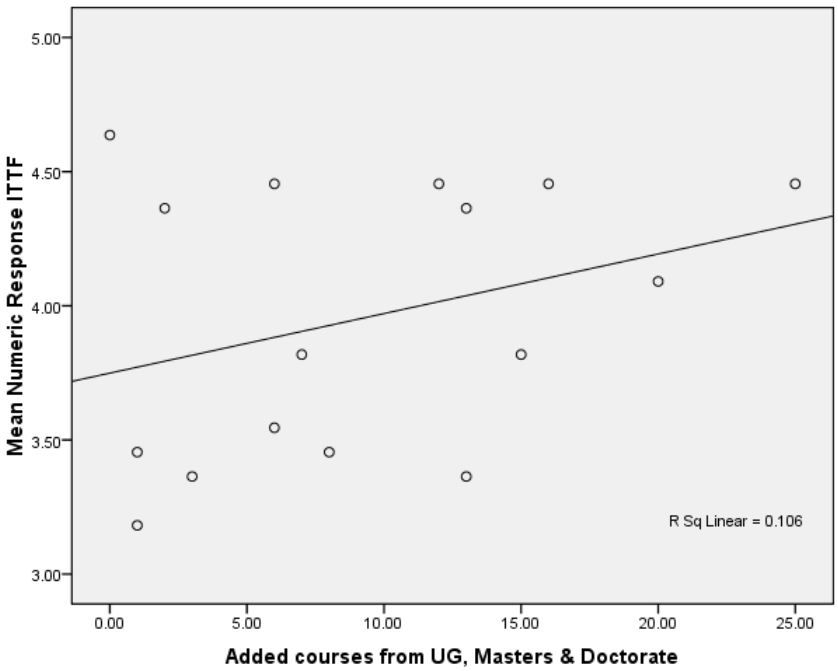

Figure 4. ITTF score and number of education courses

Question Two

The second question addressed the possible correlation between the amount of formal educational coursework and the total score and subscale scores on the SEEQ. The second

question asked, “Is there a correlation between the amount of formal educational courses taken by ATEP faculty and their students’ evaluations of instruction?” This question was divided into ten sub-questions:

Sub-question A

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and the class mean of the total score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master’s [Q# 13], and doctoral degrees [Q# 16]) and the class mean score for all items on the SEEQ.

The mean SEEQ total score was 234.08 (*SD* = 24.12). The data demonstrated a normal distribution (skewness = -.687, *SE* .564; kurtosis = -.311, *SE* = 1.091; Shapiro-Wilk = .914, *p* = .134). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .382, p = .198). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 5 shows a positive relationship between the number of education courses taken and their class mean total score on the SEEQ.

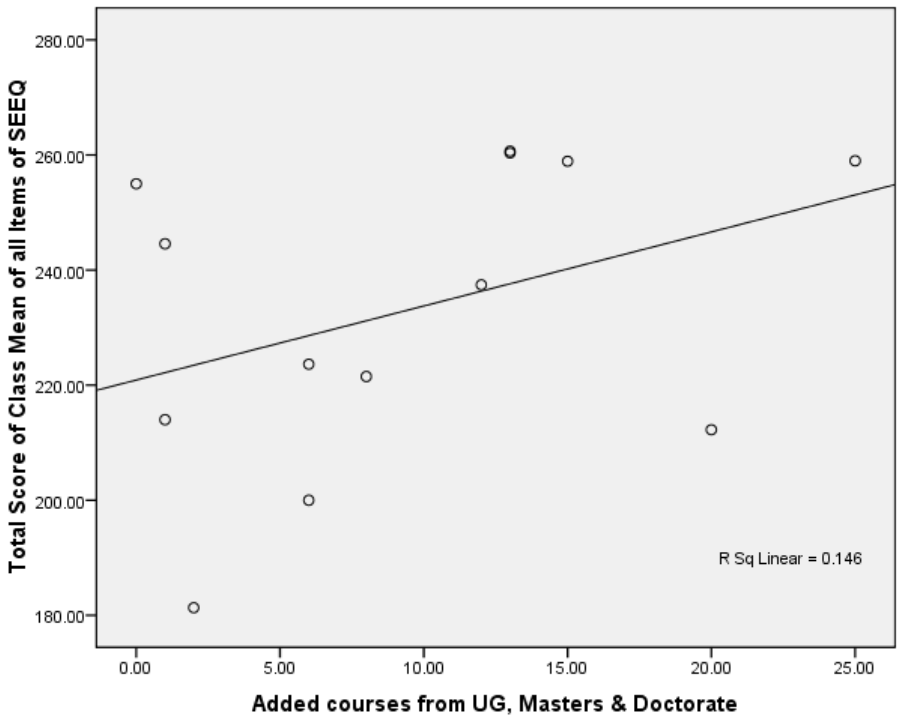

Figure 5. SEEQ score and number of education courses

Sub-question B

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Learning/Academic Value" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Learning/Academic Value" (total of all "Learning/Academic Value" items [Q# 1, 2, 3, 4]) on the SEEQ.

The mean "Learning/Academic Value" subscale score on the SEEQ was 30.4 (*SD* = 3.09). The data demonstrated a normal distribution (skewness = -.663, *SE* = .564; kurtosis = -

.404, *SE* = 1.091; Shapiro-Wilk = .912, *p* = .126). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (*n* = 16; *SD* = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Learning/Academic Value" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (*r* (11) = .484, *p* = .086). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a large correlation with a large effect size (J. Cohen, 1988). Figure 6 shows a positive relationship between the number of education courses taken and their "Learning/Academic Value" subscale score on the SEEQ.

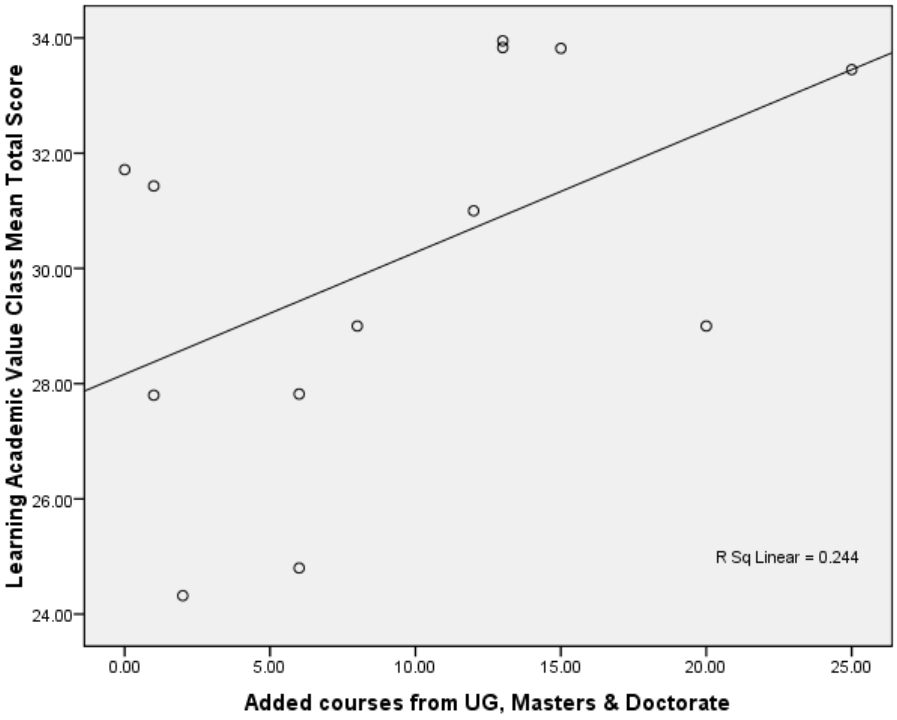

Figure 6. "Learning/Academic Value" score and number of education courses

Sub-question C

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Enthusiasm" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Enthusiasm" (total of all "Enthusiasm" items [Q# 5, 6, 7, 8]) on the SEEQ.

The mean "Enthusiasm" subscale score was 30.02 (SD = 4.38). The data demonstrated a normal distribution (skewness = -.827, SE = .564; kurtosis = -.515, SE = 1.091; Shapiro-Wilk = .935, p = .290). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Enthusiasm" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .365, p = .220). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 7 shows a positive relationship between the number of education courses taken and their "Enthusiasm" subscale score on the SEEQ.

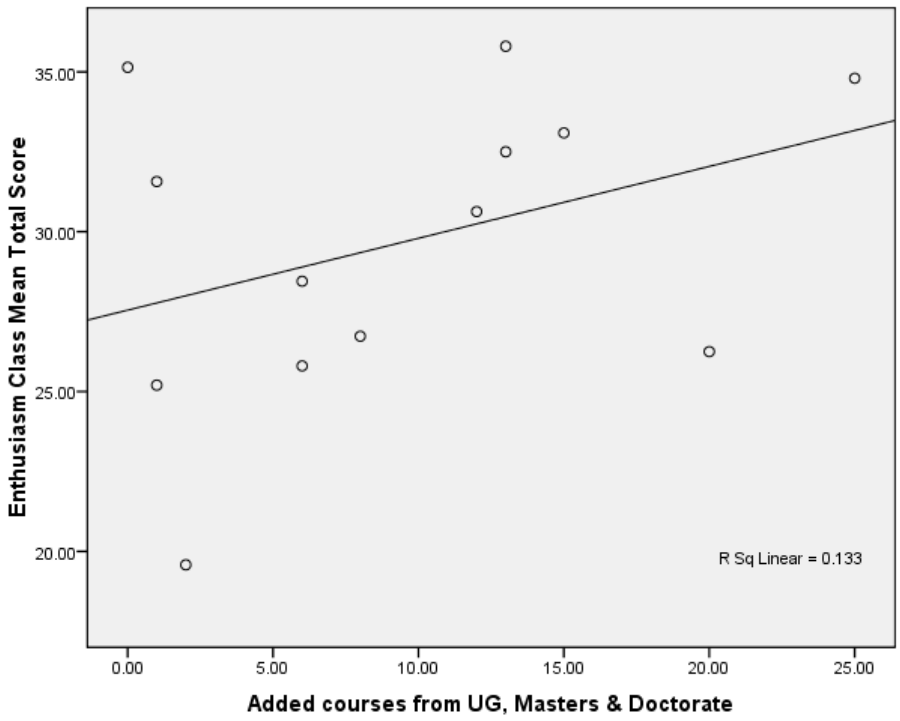

Figure 7. "Enthusiasm" score and number of education courses

Sub-question D

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Organization/Clarity" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Organization/Clarity" (total of all "Organization/Clarity" items [Q# 9, 10, 11, 12]) on the SEEQ.

The mean "Organization/Clarity" subscale score was 29.2 (*SD* = 3.63). The data demonstrated a normal distribution (skewness = -.406, *SE* = .564; kurtosis = -.1.434, *SE* = 1.091;

Shapiro-Wilk = .890, p = .056). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Organization/Clarity" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .297, p = .325). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 8 shows a positive relationship between the number of education courses taken and their "Organization/Clarity" subscale score on the SEEQ.

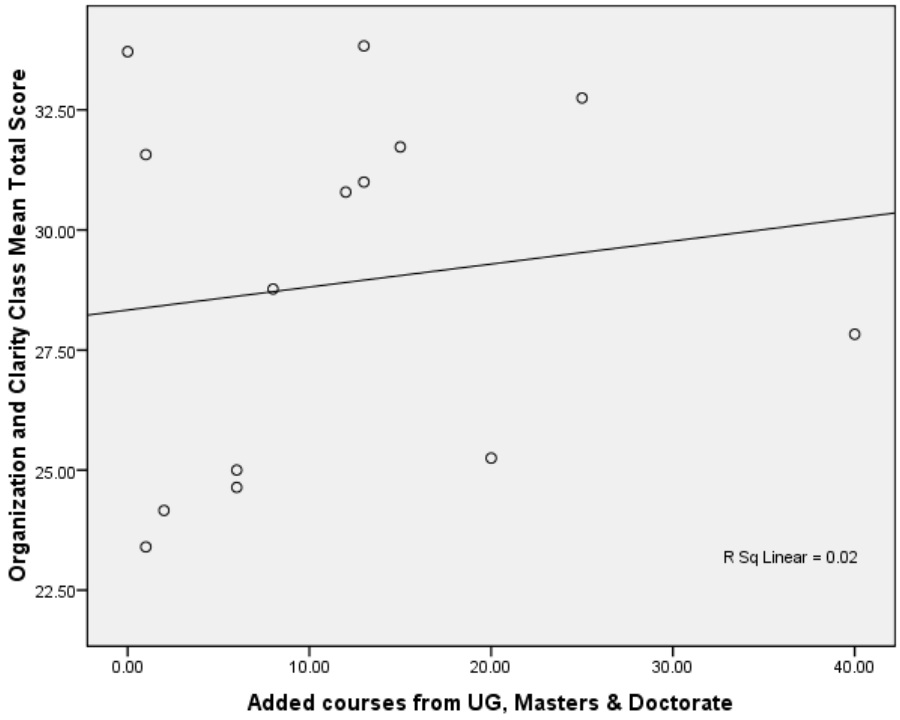

Figure 8. "Organization/Clarity" score and number of education courses

Sub-question E

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Group Interaction" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Group Interaction" (total of all "Group Interaction" items [Q# 13, 14, 15, 16]) on the SEEQ.

The mean "Group Interaction" subscale score was 31.76 (SD = 2.48). The data demonstrated a normal distribution (skewness = -.225, SE = .564; kurtosis = -.107, SE = 1.091; Shapiro-Wilk = .950, p = .484). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Group Interaction" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .362, p = .224). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 9 shows a positive relationship between the number of education courses taken and their "Group Interaction" subscale score on the SEEQ.

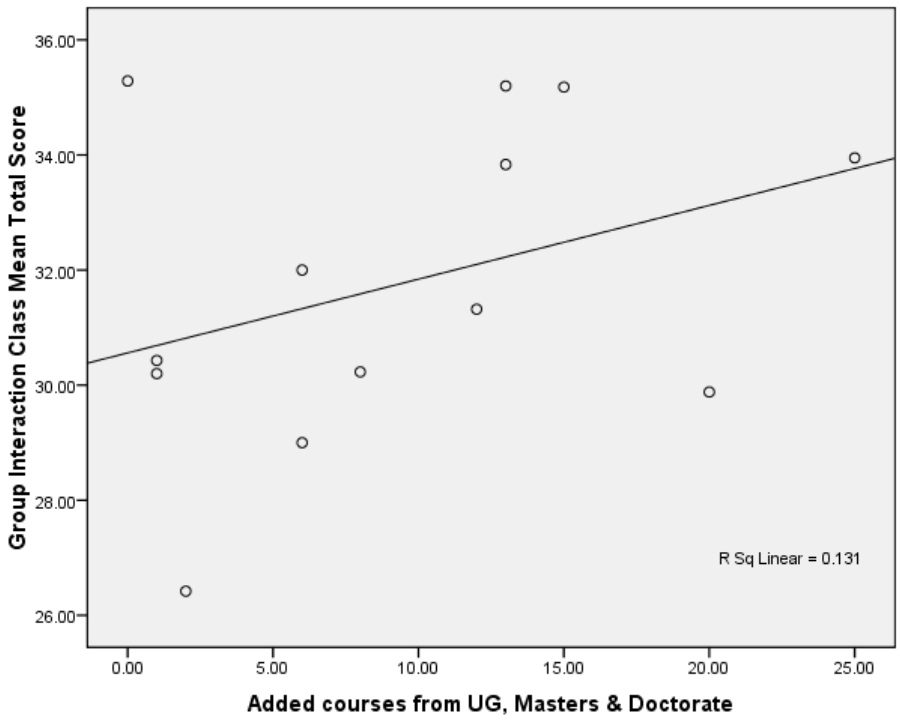

Figure 9. "Group Interaction" score and number of education courses

Sub-question F

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Individual Rapport" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Individual Rapport" (total of all "Individual Rapport" items [Q# 17, 18, 19, 20]) on the SEEQ.

The mean "Individual Rapport" subscale score was 31.61 (*SD* = 3.98). The data demonstrated a slightly non-normal distribution (skewness = -1.071, *SE* = .564; kurtosis = .422, *SE* = 1.091; Shapiro-Wilk = .879, *p* = .037). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (*n* = 16; *SD* = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Individual Rapport" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .084, p = .785).

Sub-question G

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Breadth of Coverage" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Breadth of Coverage" (total of all "Breadth of Coverage" items [Q# 21, 22, 23, 24]) on the SEEQ.

The mean "Breadth of Coverage" subscale score was 29.57 (SD = 2.85). The data demonstrated a normal distribution (skewness = .255, SE = .564; kurtosis = -.282, SE = 1.091; Shapiro-Wilk = .985, p = .990). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean Breadth of Coverage" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .494, p = .087). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a large correlation with a large effect size (J. Cohen, 1988). Figure 10 shows a positive relationship between the number of education courses taken and their "Breadth of Coverage" subscale score on the SEEQ.

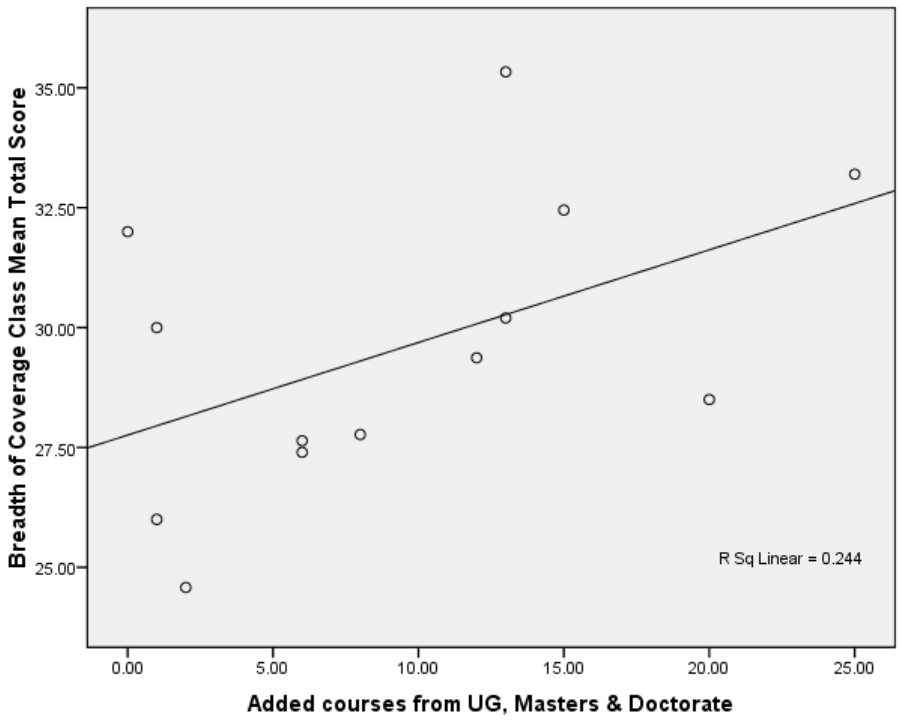

Figure 10. "Breadth of Coverage" score and number of education courses

Sub-question H

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Examination/Grading" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Examination/Grading" (total of all "Examination/Grading" items [Q# 25, 26, 27]) on the SEEQ.

The mean "Examination/Grading" subscale score was 21.64 (SD = 3.16). The data demonstrated a normal distribution (skewness = -.318, SE = .564; kurtosis = -.1.290, SE = 1.091; Shapiro-Wilk = .921, p = .173). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Examination/Grading" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .265, p = .381). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 11 shows a positive relationship between the number of education courses taken and their "Examination/Grading" subscale score on the SEEQ.

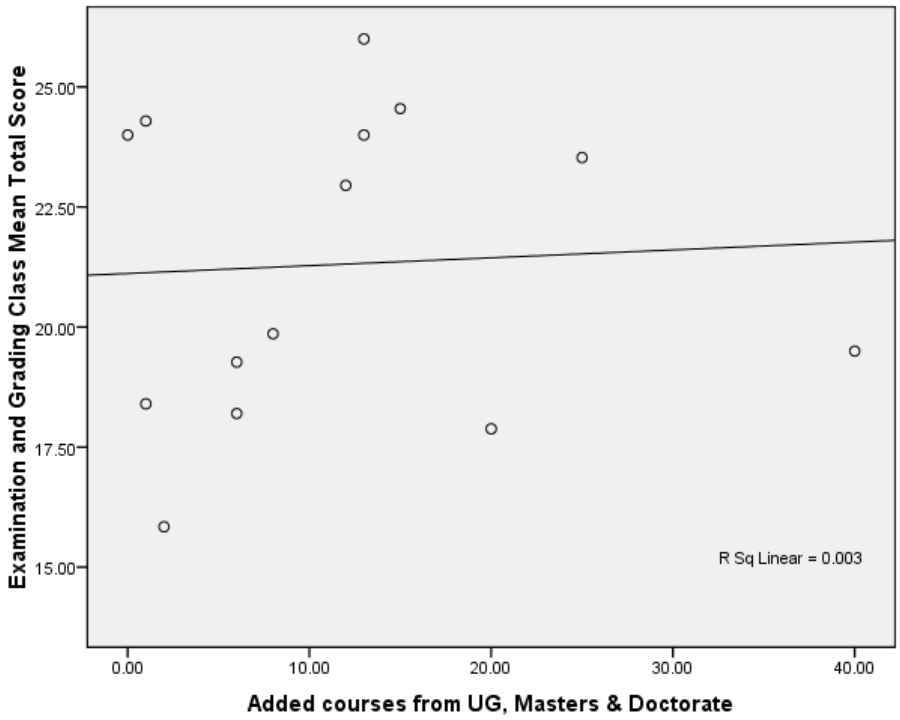

Figure 11. "Examination/Grading" score and number of education courses

Sub-question I

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Assignments/Readings" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Assignments/Readings" (total of all "Assignments/Readings" items [Q# 28, 29]) on the SEEQ.

The mean "Assignments/Readings" subscale score was 14.26 (SD = 1.8). The data demonstrated a normal distribution (skewness = -.232, SE = .564; kurtosis = -.703, SE = 1.091; Shapiro-Wilk = .970, p = .839). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (n = 16; SD = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Assignments/Readings" score on the SEEQ is correlated to the number of education courses completed. The two variables are statistically significantly correlated (r (11) = .654, p = .015). This correlation is considered to be a large correlation with a large effect size (J. Cohen, 1988). Figure 12 shows a positive relationship between the number of education courses taken and their "Assignments/Readings" subscale score on the SEEQ.

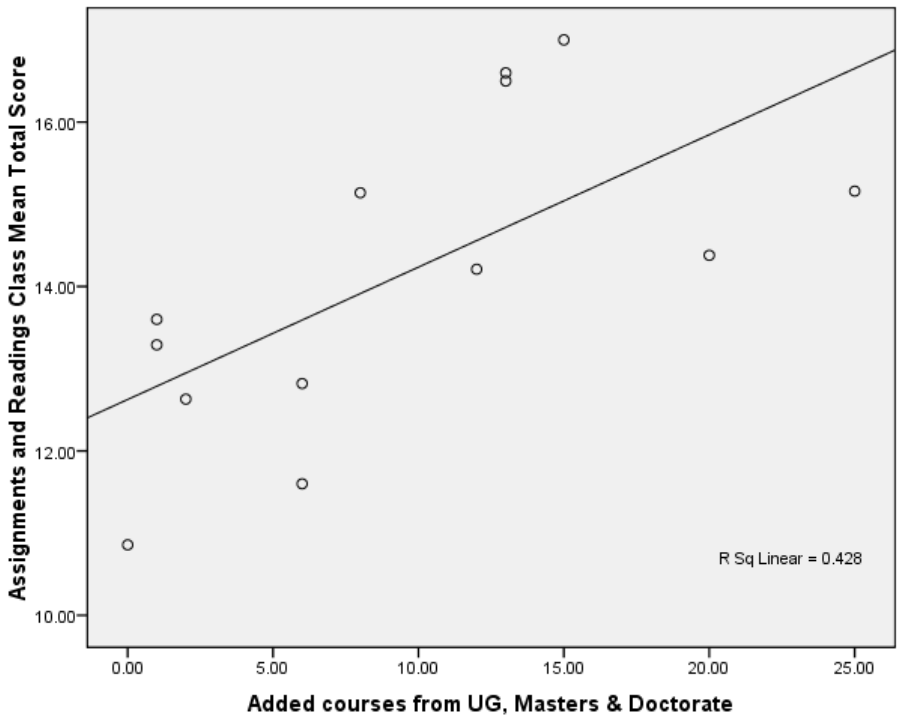

Figure 12. "Assignments/Readings" score and number of education courses

Sub-question J

Is there a correlation between the total number of formal educational courses taken by ATEP faculty and their class mean "Overall Rating" subscale score on the SEEQ? A Pearson correlation coefficient was generated between the quantity of formal educational coursework (summed total from undergraduate [Q# 10], master's [Q# 13], and doctoral degrees [Q# 16]) and the class mean subscale score for "Overall Rating" (total of all "Overall Rating" items [Q# 30, 31]) on the SEEQ.

The mean "Overall Rating" subscale score was 15.63 (*SD* = 1.84). The data demonstrated a normal distribution (skewness = -.955, *SE* = .564; kurtosis = -.157, *SE* = 1.091; Shapiro-Wilk = .907, *p* = .106). There were no outliers. The quantity of formal educational coursework taken was 9.25 courses (*n* = 16; *SD* = 7.39).

A Pearson product-moment correlation coefficient was generated to determine whether the mean "Overall Rating" score on the SEEQ is correlated to the number of education courses completed. The two variables are not statistically significantly correlated (r (11) = .239, p = .433). However, due to a small sample size, the power of the statistical analysis is low. This correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). Figure 13 shows a positive relationship between the number of education courses taken and their "Overall Rating" subscale score on the SEEQ.

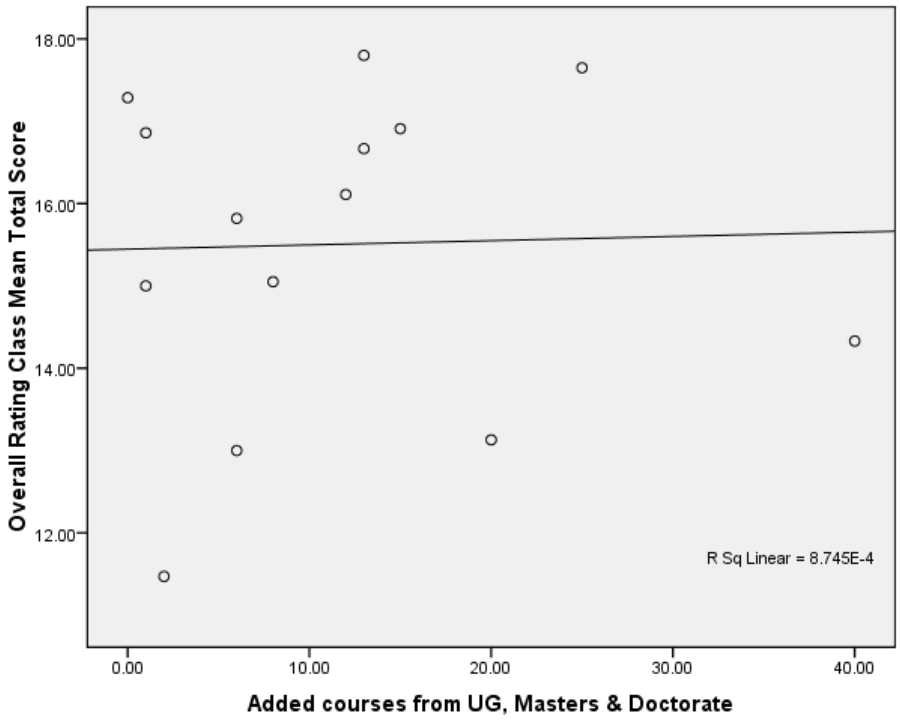

Figure 13. "Overall Rating" score and number of education courses

Question Three

The third question asked, "Is there a relationship between faculty's approach to teaching and students' evaluations of instruction?" This question was separated into two sub-questions.

Sub-question A

Is there a correlation between the total CCSF subscale score and the class mean SEEQ total score? A Pearson correlation coefficient was generated between the CCSF subscale (total of all 11 CCSF items [Q# 3, 5, 7, 8, 13, 14, 15, 17, 18, 20, 21]) and the class mean score for all items on the SEEQ. The two variables are not statistically significantly correlated (r (14) = .101, p = .710).

Sub-question B

Is there a correlation between the total ITTF subscale score and the class mean SEEQ total score? A Pearson correlation coefficient was generated between the ITTF subscale (total of all 11 ITTF items [Q # 1, 2, 4, 6, 9, 10, 11, 12, 16, 19, 22]) and the class mean score for all items on the SEEQ. The two variables are not statistically significantly correlated (r (14) = .078, p = .775).

Ancillary Questions

Categorical Analysis of ATI-R Responses

To examine mean differences in CCSF based on faculty who had taken 10 or less education courses as compared to more than 10 courses, an independent t test was conducted. The data was split into two groups. The first group contained participants with "10 or less courses" and the second group contained participants with "more than 10 courses." The criterion of 10 courses was chosen for two reasons. First, 10 courses equates to approximately 30 credits,

which is approximately a year of courses if taken as a full-time student. Gibbs & Coffey (2004) examined teacher-trainees and found that after a year-long training program, the trained teachers became less teacher-focused and more student-focused. Second, Postareff et. al. (2007) found that when studying four groups of subjects who had increasing amounts of educational coursework, the subjects tended to become more teacher-focused and had lower self-efficacy scores just after beginning a teacher training program. Once over the initial training period, their scores increased and they became more student-focused and had higher self-efficacy scores. They theorized that when embarking on a teacher training program, teachers tend to recognize the weaknesses in their own teaching. Third, Feldman (1977) found that the relationship between teaching experience and teaching effectiveness was shaped like an inverted U, with effectiveness initially declining. Craig (2006) also found that those teachers, who knew the least, were less likely to detect a problem with their skills. Therefore, for the purposes of the current study, it seemed wise to clearly divide respondents who have taken more than just a few educational courses.

The respondents who took 10 or less courses had a mean CCSF score of 3.76 (n = 9, SD =.538) while the respondents who took more than 10 courses had a mean CCSF score of 4.01 (n = 8, SD = .485). An independent samples t-test was generated to see whether the mean difference between the two groups was statistically significant. There is not a statistically significant difference in CCSF scores between faculty who had taken 10 or less education courses as compared to faculty who had taken more than 10 courses (sig = .325, t = 1.017, df = 15; Cohen's d = -.525).

The respondents who took 10 or less courses had a mean ITTF score of 3.81 (n = 9, SD = .539) while the respondents who took more than 10 courses had a mean ITTF score of 4.18 (n = 8, SD = .404). An independent samples t-test was generated to see whether the mean difference between the two groups was statistically significant. There is not a statistically significant difference in ITTF scores between faculty who had taken 10 or less education courses as compared to faculty who had taken more than 10 courses (sig = .130, t = -1.601, df = 15; Cohen's d = -.827).

Classification of Approach to Teaching

Using the method outlined by Trigwell et al. (1999), total scores for the two subscales of the Approaches to Teaching Inventory were calculated and respondents were classified as one of three categories. If the two subscale scores were less than 5 points from each other, the respondent was identified as "balanced." If the score was 5 or more points different, they were classified as either "CCSF" or "ITTF" depending on which was greater. Three respondents (15.8%) were classified as CCSF, six (31.6%) as ITTF and ten (52.6%) were balanced. The respondents with 10 or less courses had a balanced distribution between the three categories. The respondents with more than 10 courses were either balanced or ITTF. No respondents with more than 10 courses were classified as CCSF. Table 6 further displays the ATI-R approach categories according to the number of education courses taken.

Table 6

Respondent's ATI-R Approach Classifications

	Balanced	ITTF	CCSF	TOTAL
10 or Less Courses	3	3	3	9
More Than 10 Courses	6	2	0	8
Total	9	5	3	17

Categorical Analysis of SEEQ Responses

To examine mean differences in SEEQ total scores and subscale scores based on faculty who had taken 10 or less education courses as compared to more than 10 courses, independent *t* tests were conducted. The dependent variable, number of educational courses, was split into two groups. The first group contained participants with "10 or less courses" and the second group contained participants with "more than 10 courses." The independent variable was the class mean on all items of the SEEQ. Assumptions were tested and met. The respondents who took 10 or less courses had a mean SEEQ total score of 220 ($n = 7$, $SD = 25.09$) while the respondents who took more than 10 courses had a mean SEEQ total score of 244.59 ($n = 7$, $SD = 20.25$). Results show that there is not a statistically significant difference between the means of the two groups ($sig = .067$, $t = -2.017$, $df = 12$; Cohen's d = -1.165).

Independent samples *t* tests were also conducted to evaluate the relationship between the two educational course groups, and the scores on the SEEQ subscales. Assumptions were tested and met. Results show that there is a statistically significant difference for the class mean scores

of "Learning/Academic Value" and "Assignments/Readings" subscales. Both had at least a medium effect size as interpreted by Cohen (1988). A summary of the results are found in Table 7.

Table 7

Independent t-test Results for SEEQ Based on Number of Education Courses

	t	*df*	*sig*	*Cohen's d*	Effect Size Interpretation
Learning/Academic Value	-2.945	12	.012 **	-1.700	Medium
Staff Member Enthusiasm	-2.046	12	.063	-1.181	Medium
Organization/Clarity	-1.649	12	.125	-.952	Small to Medium
Group Interaction	-1.937	12	.077	-1.118	Medium
Individual Rapport	-.501	9.347 *	.628	-.328	Small
Breadth of Coverage	-2.079	12	.060	-1.200	Medium
Examination/Grading	-1.651	12	.125	-.953	Small to Medium
Assignments/Readings	-3.290	12	.006 **	-1.9	Medium to Large
Overall Rating	-1.132	12	.280	-.654	Small
Total SEEQ Score	-2.017	12	.067	-1.165	Medium

** Indicates statistically significant values
* Indicates unequal variances assumed

Undergraduate Education Major or Minor or K-12 Certification by Age

The ages of the respondents ranged from 26 to 52 years old. Respondents were categorized into 6 groups of age ranges to see whether there was a trend towards more education majors, minors or K-12 certification within the older groups of respondents. Table 8 demonstrates that there are no education majors younger than 45 years of age in the respondent group.

Table 8

Undergraduate Education Major, Minor, and/or K-12 Certification by Age

Age	Respondents per age group	Education Majors	Education Minors	K-12 Certifications
25-29	2	0	1	1
30-34	5	0	2	2
35-39	3	0	1	0
40-44	3	0	1	1
45-49	3	1	1	1
50-54	3	2	3	3
Total	19	3	9	8

Summary

Analyses were conducted for each of the three main research questions. Correlations were performed to see whether relationships exist between the ATI-R subscale scores, the SEEQ total score and subscale scores, and the amount of formal educational coursework taken by the faculty. In addition, two related ancillary research questions were developed that allowed the data to be evaluated categorically. The ATI-R and SEEQ scores of faculty with more than 10

courses and faculty with 10 or less courses were examined. Finally, the researcher evaluated the ages of the respondents and their majors, minors, and K-12 certification status.

CHAPTER FIVE: DISCUSSION

Introduction

Shulman (1986) proposed that content knowledge, pedagogical knowledge, and curriculum knowledge are all important to teaching. Athletic trainers teaching in ATEPs have proven their content knowledge through the certification process established by the Board of Certification (BOC). However, there is not evidence to suggest that athletic training faculty have established an expertise in pedagogy or curriculum. An examination of position vacancy notices demonstrates that a background that includes degrees or coursework in educational concepts is not a criterion commonly used to hire athletic training faculty. The purpose of this study was to investigate if there are correlations among an instructor's approach to teaching, student evaluation of instruction outcomes, and the amount of formal coursework in education a teacher has completed.

The study included faculty at 10 of 13 Florida ATEPs. The study gained a total phase one response rate of 95% (19 of 20 faculty). Phase two Students' Evaluation of Educational Quality (SEEQ) questionnaires were completed by 84% (16 of 19) of the faculty who participated in phase one of the study. Therefore, the study was able to gain SEEQ data from 55% (16 of 29) of all full time faculty athletic trainers teaching at ATEPs in Florida.

Relevant Findings

Demographics

The respondents for this study were 39.2 years old (*SD* = 8.03), had 8.84 years of teaching experience (*SD* = 5.79) and had 11.5 years of experience with patient care (*SD* = 7.06).

Most (78.9%; *n* = 15) respondents were non-tenure track. 17.6% (*n* = 3) of respondents reported an undergraduate degree in "Physical Education" and no respondents reported a degree in "Education." 47.4% (*n* = 9) reported that their undergraduate degree contained a minor or specialization in education. At the master's level, 6.2% (*n* = 1) of respondents reported a degree in "Education" and 6.2% (*n* = 1) reported a degree in "Physical Education." 78.9% (*n* = 15) of respondents reported a doctoral degree or were in progress with a doctoral degree. "Curriculum and Instruction" was the most commonly reported earned doctoral degree (21.4%; *n* = 3). "Higher Education" and "Higher Education Administration" together, made up 21.4% (*n* = 3) of respondents' doctoral degrees.

Regarding the total number of education courses taken by faculty, there is a wide range reported by ATEP faculty. The mean from all respondents was 9.25 courses (*SD* = 7.39). The range was 25 courses with a minimum of 0 courses and a maximum of 25 courses.

Research Question One

The study found no statistically significant correlations between the amount of formal educational coursework and the mean values on the Approaches to Teaching Inventory-R subscales. However, due to a small sample size, the power of the statistical analysis is low. It is interesting to note that though statistically non-significant, this correlation is considered to be a medium correlation with a medium effect size (J. Cohen, 1988). It is possible that a study with more statistical power would find significance.

Research Question Two

The study found one statistically significant correlation between the amount of formal educational coursework and the SEEQ subscale value of "Assignments/Readings." This positive correlation is considered to be a large correlation with a large effect size (J. Cohen, 1988). This means that instructors who have completed more educational courses tend to have higher scores on the "Assignments/Readings" subscale. Other correlations between the amount of formal educational coursework and the other SEEQ subscales were not statistically significant, nor was the correlation between the amount of formal educational coursework and the SEEQ total score. However, due to a small sample size, the power of the statistical analysis is low. Again, one should note that despite the low statistical power, two additional subscales are considered to be large correlations with large effect sizes. This means that instructors who have more educational courses tend to have higher scores on the "Learning/Academic Value" subscale and the "Breadth of Coverage" subscale. In addition, the SEEQ total score and four subscales demonstrated medium correlations and medium effect sizes according to Cohen. This means that instructors who have more educational courses tend to have higher scores on the "Staff Member Enthusiasm," Organization/Clarity," "Group Interaction," and "Examination/Grading" subscales. Also, instructors who have more educational courses also have higher scores on the entire SEEQ. Given that all statistically significant and non-significant correlation values were in the positive direction, and the presence of medium and large effect sizes, it is possible that a study with more statistical power would find significance. Table 9 shows the correlation values, and effect sizes.

Table 9

SEEQ Correlations with Educational Coursework Completed

	r =	Effect Size Interpretation
Learning/Academic Value	.484	Large
Staff Member Enthusiasm	.365	Medium
Organization/Clarity	.297	Medium
Group Interaction	.362	Medium
Individual Rapport	.084	N/A
Breadth of Coverage	.494	Large
Examination/Grading	.265	Medium
Assignments/Readings	.654 **	Large
Overall Rating	.239	Small
Total SEEQ Score	.382	Medium

** Indicates significance at the .05 level (2-tailed)

Research Question Three

The study found no statistically significant correlation between either the CCSF subscale score or the ITTF subscale score on the ATI-R and the class mean SEEQ total score. This indicates that there is not a statistically significant relationship between the faculty's approach to teaching and their students' evaluation of educational quality.

Ancillary Questions

ATI-R Questions

Respondents with 10 or less educational courses did not have different CCSF or ITTF scores when compared to those respondents with more than 10 educational courses. In addition, the respondents were classified as either balanced, CCSF or ITTF. Of faculty respondents with more than 10 courses completed, none (n = 8) were classified as CCSF. This contradicts past research demonstrating an increase in student focused approach and behaviors when faculty are trained in educational concepts (Gibbs & Coffey, 2004; Postareff et al., 2007). It should also be noted that there was also a very small number of respondents (2 of 8) with more than 10 courses classified as ITTF. In this group of respondents who had more coursework in education, most (6 of 8) favored a balanced approach to teaching.

SEEQ Questions

Independent samples t-tests illustrated that the means of two of the subscale values on the SEEQ were statistically significantly different between those with more than 10 courses and those with 10 or less courses. Teachers with more coursework in education are rated more positively by students in the area of "Learning/Academic Value." Gibbs & Coffey (2004) also found that students reported increased learning when their instructors were trained in pedagogy. Also, teachers with more coursework in education are rated more positively by students in the area of "Assignments/Readings." Both of these analyses reflected effect sizes that were at least medium. In addition, three other non-significant subscales and the total SEEQ score analyses reflected effect sizes that were at least medium. These effect sizes are important given the low statistical power of the analysis. It is possible that a study with more statistical power would find

statistical significance. While these results demonstrate that more formal educational coursework is related to increases in several areas of teacher quality as rated by students, they should be interpreted with caution due to the difficulties encountered in factor analysis.

Discussion

There are three main areas of prior research that directly relate to the findings of this study. First, past researchers sought to discover the educational history, experience, and employment characteristics of ATEP faculty. Despite a thorough review of literature, these factors were still somewhat difficult to describe due to limited studies, differing populations and different methodologies used by prior researchers. Second, there is little research available regarding the evaluation of ATEP faculty and the use of student evaluation of instruction questionnaires. Third, past research outside of athletic training education found that SEEQ subscale scores increased after one year of teacher training. The results of the current study seem to corroborate the idea that teacher training does have an impact on student evaluation of instructional quality. The following discussion will focus on three questions related to the three research areas:

1. How does the study confirm prior research and scholarship?
2. How does the study contradict prior research and scholarship?
3. How does the study add to the prior research and scholarship?

Educational History, Experience, and Employment Characteristics of ATEP Faculty

The ages and experience levels of respondents were similar to other researchers (Hertel et al., 2001; Mensch & Ennis, 2002; Rich, 2006) and can therefore allow some comparisons

between study populations in the area of educational history. The ages and experience characteristics are summarized in Table 10.

Table 10.

Age and Experience

	Current Study	Rich	Mensch & Ennis	Hertel et al
Mean Age (Years)	39.2 *SD* = 8.03	37.2 *SD* = 7.6	Not reported	42.0 *SD* = 7.2
Mean Patient Care Experience (Years)	11.5 *SD* = 7.06	13.8 as an ATC	Not reported	Not reported
Mean Teaching Experience (Years)	8.84 *SD* = 5.79	8.16 *SD* = 6.85	9.1	Not reported

The Mench & Ennis study was qualitative in nature using instructors teaching in a limited number of ATEPs. Hertel et al only included doctoral-trained faculty, and attempted to ascertain the characteristics of that limited population. Rich's study (2006) is the most relevant and similar to the current study. One main focus of Rich's study was to discover the educational backgrounds of athletic training educators. That study was quantitative in nature, recruited subjects teaching in ATEPs, and was not exclusive to doctoral-trained faculty.

Rich (2006) found approximately the same number of respondents who had either earned or were in progress with a doctoral degree. 80% of the respondent's in Rich's study had earned or were in progress with a doctoral degree and 78.9% (n = 15) of respondents in the present study met those criteria. Despite these very similar characteristics, differences existed between the educational background of respondents in this study and the backgrounds of Rich's respondents. Rich's study reported a higher percentage of undergraduate and master's degrees in

fields related to education. These results are not surprising for two reasons. First, Rich used a targeted approach to recruiting subjects and may have obtained a biased sample of people with formal education coursework in their background. Second, the results could reflect a real shift in the type of degrees faculty earned given the 2004 mandate that students graduate from an accredited athletic training curriculum program. It should not be unexpected to find that undergraduate degrees in education are declining because that is a logical byproduct of the mandate for accredited athletic training curriculum programs. Prior to the mandate, students often received bachelor's degrees in physical education while obtaining the requisite courses and hours to qualify as an internship candidate for the BOC examination. Since the mandate, students must have obtained their degrees from accredited programs. Also, it is logical to think this shift would have begun during the years when the faculty and students knew the mandate was eminent.

Though the number of respondents who had completed a doctoral degree or were in progress with one was approximately the same between the two studies, the current study found that a greater percentage of respondent's doctoral degrees were in educational fields. The Curriculum and Instruction and Higher Education degrees were twice as common in the current study as they were in the Rich study. Table 11 reports the percentages of degree types at all three levels of education.

Table 11

Comparison of Respondents' Degrees

	Current Study	Rich
Undergraduate		
Education	0%	1.5%
Physical Education	17.6%	33%
Graduate		
Education	6.2%	12%
Physical Education	6.2%	15%
Health Education	6.2%	
Doctoral (completed or in progress)		
Curriculum & Instruction	21.4%	9%
Higher Education	14%	7%
Higher Education Admin.	7%	6%
Higher Education Leadership	0%	6%

The current study found that the mean number of education courses taken by respondents was 9.25 courses (*SD* = 7.39). The range was 25 courses with a minimum of 0 courses and a maximum of 25 courses. The respondents in Rich's study took 8.13 courses in education (*SD* = 11.06). The range was between 0 and 70 courses. However, Rich reports that there were significant problems with the "open ended" nature of the question in their survey. The researcher needed to make many inferences regarding the meaning of responses received. The current study also had some responses that were difficult to interpret. One thing is clear however, given the large standard deviations in both studies, there is considerable lack of uniformity among faculty in the area of pedagogy and curriculum. Both studies demonstrate that students in ATEPs can be taught by someone who has taken no formal coursework in education, or they could be taught by

someone who has one or more education degrees that include a plethora of courses in pedagogy and curriculum.

The CAATE does not ("Standards for the accreditation of entry-level athletic training education programs," 2008) that faculty have any formal training in education, nor does it mandate any degree in education. In addition, investigation of recent position vacancy notices demonstrates that formal training is not used as a criterion for hiring ATEP faculty. Given the lack of mandates, standards or expectations in the area of formal training in education, it is not surprising that there is a wide range of formal preparation represented. This study did find evidence to suggest that more educational coursework leads to improved teaching quality as perceived by students. If others corroborate these findings, more emphasis should be put on the formal preparation of ATEP faculty.

Evaluation of ATEP Faculty

There is no prior research on ATEP faculty student evaluation of instruction scores. The limited research relating to student evaluations finds that ratings of "good to excellent" are expected and that evaluation of classroom instruction is important (Perkins & Judd, 2001). 80% of Staurowsky and Scriber's (1998) respondents said that student evaluation of instruction scores are important or very important to promotion and retention. Similarly, the current study found that 91.4% of respondents said that their teaching was emphasized to a "great extent" when it came to promotion and tenure. The current study did not investigate whether student evaluation of instruction scores were used as the sole means to evaluate teaching ability.

If student evaluation of instruction scores are used heavily for promotion, retention and tenure decisions, this study demonstrates that the reliability of these scores is concerning. Nine

respondents reported class enrollments that were less than 15 students. Marsh (1984) found that SEEQ factor reliability estimates decline significantly as enrollment decreases. Marsh's reliability estimates and the number of courses in the current study that have enrollment falling under each reliability estimate are presented in Table 12.

Table 12

Marsh's Reliability Estimates and Number of Students

Number of Students	Reliability Coefficient	Number of Courses in Present Study
50	.95	1
25	.9	5
10	.74	6
5	.6	6
1	.23	0

According to the above estimates by Marsh, 6 of the 19 faculty respondents in this study will have student evaluation instrument reliability that is less than adequate. This is very important when one considers that 94.1% of these same respondents reported that the emphasis on teaching for promotion and tenure was to a "great extent." In addition, Marsh (1984) points out that there is significant variety in the instruments to evaluate educational quality. Not all methods used are multi-dimensional, reliable and/or valid. If the enrollment in courses is low, and the instrument used is not confirmed to be statistically valid, faculty are being evaluated using data that is not indicative of their actual teaching ability. Without quality feedback, it is difficult for department chairs and deans to fairly evaluate the teaching ability of the ATEP

faculty. This represents an important issue for the success of athletic training students as well as the success of ATEP faculty in academia.

Marsh (2007) argues that teaching effectiveness is highly stable over time. For teachers to improve their teaching, feedback as well as intervention is necessary. For 6 of the 19 respondents in this study, the reliability of the feedback is less than adequate. Therefore, improvements in teaching ability will be hampered by the inability to receive quality information about their performance.

The Impact of Teacher Training

Using an earlier version of the SEEQ, Gibbs & Coffey (2004) found that after a year of teacher training, five SEEQ subscale scores increased while the scores of teachers who were not trained remained the same or decreased. The five subscales that correlated significantly were: "Enthusiasm," "Organization," "Group Interaction," "Rapport" and "Breadth'. In addition, the study reported that students scored the trained teachers statistically significantly higher in the area of "Student Learning." The current study found that faculty with more formal educational coursework were rated statistically significantly higher on the SEEQ subscale value of "Assignments/Readings." This subscale is a new addition to the SEEQ and was not evaluated in the Gibbs & Coffey study. In addition, the current study found that, though statistically non-significant, positive relationships existed between all subscales. Each subscale correlation, other than "Individual Rapport" and "Overall Rating," had a medium or large effect size. Finally, the current study found that those faculty who had more than 10 education courses had statistically significantly higher scores on the "Assignments/Readings" and "Learning/Academic Value" subscales. While the "Assignments/Readings" subscale is a new addition, the results from this

study agree with Gibbs & Coffey that an increase in teacher training does correlate positively with student learning. Each of these results suggests that formal training in educational concepts should be added to the list of criterion used when hiring ATEP faculty.

Limitations

Limitations of this study are largely based on the low statistical power created by a small population sample. The study had an excellent phase one response rate (95%; 19 of 20), and gained participation from 10 of the 13 ATEPs in Florida. The study had a good phase two response rate (84%; 16 of 19). However, due to the fact that three ATEPs were unable to be invited to participate, and three incidences of attrition, the study was only able to gain phase one and two participation from 55% (16 of 29) of all the faculty teaching in Florida. Due to the inability to obtain enough statistical power, the results and discussion concentrate on effect sizes rather than statistical significance.

Because only slightly more than one-half of all faculty in Florida participated in the study, the results that examine student evaluations may not be representative of ATEP faculty in Florida. Two universities were excluded due to inability to gain IRB permission to contact them. One was a private university and one was a public university. It is uncertain whether the inclusion of their faculty would have changed the results of the study. One university was excluded because the researcher is the program director. That university has two faculty. One has no formal educational coursework and one has a large amount of educational coursework. It is uncertain whether the inclusion of their faculty would have changed the results of the study.

Recommendations for Further Research

There are several areas that should be explored as a result of this study. First, the study should be replicated using a larger sample size given the trend in the data. An additional study, with more statistical power could provide important information regarding the educational background of ATEP faculty outside of the State of Florida. Second, it is worthwhile to investigate the student evaluation of instruction instruments that are used for feedback on teaching effectiveness and to make decisions about the promotion, retention and tenure of ATEP faculty. Third, research investigating a link between the educational preparation and concrete student outcomes such as BOC exam pass rates could provide important information regarding the qualifications of ATEP faculty and quantifiable academic outcomes. Fourth, research is needed regarding the influence of student evaluation of instruction scores on promotion, retention, and tenure decisions given the suspected lack of reliability the scores have in courses with small enrollment.

Summary

The results of this study provide some evidence that there is a positive relationship between educational coursework and teaching effectiveness as measured by student evaluation of instruction scores. Students reported that the learning and academic value provided by the instructor was higher when the instructor had more educational coursework in their background. Students also reported that instructors with more educational coursework were better in the area of assignments and readings. While the results of this study should be interpreted with caution, trends in the data suggest that further investigations could result in findings that would be very useful to ATEP faculty and the administration at the institutions that house ATEPs. If further

investigations also show that more educational coursework increases the students' evaluations of educational quality, recommendations could be made regarding the professional preparation of ATEP faculty in the future.

APPENDIX A:

UCF IRB PERMISSION

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Notice of Expedited Initial Review and Approval

From : **UCF Institutional Review Board**
FWA00000351, Exp. 6/24/11, IRB00001138

To : **Kristen Schellhase** and Co-PIs: **David Boote, Debbie Hahs-Vaughn**

Date : **November 10, 2008**

IRB Number: SBE-08-05889

Study Title: **Are Approaches to Teaching and/or Student Perception of Instruction Scores Related to the Amount of Faculty Formal Educational Coursework?**

Dear Researcher:

Your research protocol noted above was approved by **expedited** review by the UCF IRB Chair on 11/8/2008. **The expiration date is 11/7/2009.** Your study was determined to be minimal risk for human subjects and expeditable per federal regulations, 45 CFR 46.110. The category for which this study qualifies as expeditable research is as follows:

> 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

A **waiver of documentation of consent** has been approved for the student participants. Student participants do not have to sign a consent form, but the IRB requires that you give participants a copy of the IRB-approved consent form, letter, information sheet, or statement of voluntary consent at the top of the survey.

The IRB has approved a **consent procedure which requires the faculty participants to sign consent forms.** Use of the approved, stamped consent document(s) is required. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

All data, which may include signed consent form documents, must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Advise the IRB if you receive a subpoena for the release of this information, or if a breach of confidentiality occurs. Also report any unanticipated problems or serious adverse events (within 5 working days). Do not make changes to the protocol methodology or consent form before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at http://iris.research.ucf.edu .

Failure to provide a continuing review report could lead to study suspension, a loss of funding and/or publication possibilities, or reporting of noncompliance to sponsors or funding agencies. The IRB maintains the authority under 45 CFR 46.110(e) to observe or have a third party observe the consent process and the research.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 11/10/2008 09:30:09 AM EST

Joanne Muratori

APPENDIX B:

IRB PERMISSION LETTERS

University of West Florida

Research and Sponsored Programs
11000 University Parkway, Bldg. 11
Pensacola, FL 32514-5750

Ms. Kristen Schellhase
University of Central Florida
Orlando, FL 32826-3246

November 19, 2008

Dear Ms. Schellhase:

The Institutional Review Board (IRB) for Human Research Participant Protection has completed its review of your proposal titled "Are Approaches to Teaching and/or Student Perception of Instruction Scores Related to the Amount of Faculty Formal Educational Coursework" as it relates to the protection of human participants used in research, and has granted approval for you to proceed with your study. As a research investigator, please be aware of the following:

- You acknowledge and accept your responsibility for protecting the rights and welfare of human research participants and for complying with all parts of 45 CFR Part 46, the UWF IRB Policy and Procedures, and the decisions of the IRB. You may view these documents on the Office of Research and Sponsored Programs web page at http://www.research.uwf.edu.

- You will ensure that legally effective informed consent is obtained and documented. If written consent is required, the consent form must be signed by the participant or the participant's legally authorized representative. A copy is to be given to the person signing the form and a copy kept for your file.

- You will promptly report any proposed changes in previously approved human participant research activities to the Office of Research and Sponsored Programs. The proposed changes will not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the participants.

- **You are responsible for reporting progress of approved research to the Office of Research and Sponsored Programs at the end of the data collection period of November 7, 2009. Approval for data collection for this project begins November 08, 2008.**

- You will immediately report to the IRB any injuries or other unanticipated problems involving risks to human participants.

Good luck in your research endeavors. If you have any questions or need assistance, please contact the Office of Research and Sponsored Programs at 857-6378.

Sincerely,

Dr. Terry Prewitt, Chair
IRB for Human Research
Participant Protection

Dr. Richard S. Podemski
Associate Vice President for Research
and Dean of Graduate Studies

CC: Dr. John Todorovich

November 20, 2008

Kristen C. Schellhase, MEd., ATC, LAT, CSCS
Program Director
Instructor Program in Athletic Training College of Health and Public Affairs
The University of Central Florida
4000 Central Florida Blvd.
Orlando, Fl 32816-2205

RE: **"Are Approaches to Teaching and/or Student Perception of Instruction Scores Related to the Amount of Faculty Formal Educational Coursework?"**

Dear Ms. Schellhase:

This is in response to your email (dated November 15, 2008) to Caroline Fultz-Carver, Interim Director. USF Division of Research Integrity and Compliance, regarding the above referenced project.

From the information you have provided to us, it does not appear that the University of South Florida is "engaged" in this research project. It is true that members of the USF ATEP faculty and their students will be asked to be participants in the study but USF is not "engaged" in the conduct of the study.

There is no USF Investigator and no study data will be stored at USF. You have provided us with the approval letter from the University of Central Florida Institutional Review Board so there is an IRB following the progress of this study.

According to the Office for Human Subjects Protection (OHRP) Guidance on "Engagement of Institutions in Research" (Section B.5), an institution is not engaged in research if their involvement is limited to the following:

> "Institutions (e.g., schools, nursing homes, businesses) that permit use of their facilities for intervention or interaction with subjects by investigators from another institution."

Unless there is a change in the status of this project, the University of South Florida Institutional Review Board will not review this study for the reasons given above and no further submission to the USF IRB is required.

DIVISION OF RESEARCH COMPLIANCE
University of South Florida • 12901 Bruce B. Downs Blvd., MDC 035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-5618

Kristen Schellhase - FGCU IRB approval for UCF study

From: "Stremke, Donna" <dstremke@fgcu.edu>
To: "kschellh@mail.ucf.edu" <kschellh@mail.ucf.edu>
Date: 11/17/2008 4:53 PM
Subject: FGCU IRB approval for UCF study
CC: "Renk, Dr. Clifford" <crenk@fgcu.edu>, "Roberts, Dr. Thomas J." <troberts@fgcu.edu>

Dear Ms. Schellhase:

Per the FGCU IRB's Chair, you have the permission of the Florida Gulf Coast University IRB to contact the department chair of our athletic training educational program to recruit faculty for your study. The chair of the department is Dr. Sharon Bevins, Department of Physical Therapy and Human Performance. She can be reached at (239) 590-7533 or sbevins@fgcu.edu.

Thank you for contacting the FGCU IRB about this matter.

Donna Stremke
Grants Specialist Supervisor
Office of Research and Sponsored Programs
239-590-7029 (voice)
239-590-7024 (fax)
dstremke@fgcu.edu

From: "Teri Hamill, Ph.D." <hamillt@nova.edu>
To: <kschelih@mail.ucf.edu>, Jaime Arango <arangoj@nova.edu>
Date: 11/20/2008 9:12 AM
Subject: NSU approval
Attachments: hamillt.vcf

As chair of the NSU IRB, I approve your contacting faculty whom you determine meet your selection criteria to invite them to participate in your approved research protocol. I do not know if we have those with the qualifications that you seek, however.

Teri Hamill
Chair, IRB, NSU

PALM BEACH ATLANTIC UNIVERSITY

Faculty Research Council
Office of Academic Research
Institutional Review Board, Borbay 105-B
PO Box 24708
West Palm Beach, FL 33416-4708
(561) 803-2463

December 9, 2008

Ms. Kristen Schellhase
Program Director
Instructor Program in Athletic Training College of Health and Public Affairs
The University of Central Florida
4000 Central Florida Blvd.
Orlando, F132816-2205

Dear Ms. Schellhase:

The Project Category II proposal that you have submitted, ***Are Approaches to Teaching and/or Student Perception of Instruction Scores Related to the Amount of Faculty Formal Educational Coursework?,*** has been granted approval by the Institutional Review Board of Palm Beach Atlantic University.

You are responsible for complying with all stipulations described under the Code of Federal Regulations 45 CFR 46 (Protection of Human Subjects). This document can be obtained from our web site at the following address:

http://www.callisto-science.org/OAR/45_CFR_46.html

The approval period is for one year. After that time, an extension may be requested. It is your responsibility to notify this committee of any changes to the study or any problems that occur. You are to provide the committee with a summary statement. Please use the enclosed statement to request an extension, for reporting changes, or reporting the completion of your study. Good luck with the project!

Warmest regards,

David M. Compton, Ph.D.
Chair, IRB

Kristen Schellhase - Re: Doctoral Candidate Seeking Assistance

From: IRB2 <irb2@ufl.edu>
To: Kristen Schellhase <kschellh@mail.ucf.edu>
Date: 11/21/2008 10:38 AM
Subject: Re: Doctoral Candidate Seeking Assistance

Hello Kristen,

You are cleared to administer your survey at the University of Florida. If the nature of your study change or you make revisions to the study, please notify our office of the revision and approval. Should you have questions, please contact our office.

Denise

>>> "Lynch, James M" <jlynch@flsouthern.edu>
Hi there.
I read through everything last night and don't think we need to do anything with the IRB here at Florida Southern.
I am sure that I can participate this semester. My Evaluation course meets the bill. Sue is out of town so I am not sure about her yet. She is heavy in the clinical ed stuff in the spring semester, so I don't know if she has one that meets your requirements.
Mick

Here is the link to Institutional Review Board JuriSDiction/Applicability policy (http://www.research.fsu.edu/humansubjects/documents/irb/IRB_Polices_002.pdf) for FSU. Your research does not meet section 4 of the policy therefore no IRB review is needed. However you will need approval for the college/ department in which you wish to do research.

Julie Haltiwanger

Office of Research

P O Box 3062742

Tallahassee Fl 32306-2742

850-644-7900

Fax 850-644-4392

jth5898@fsu.edu

Kristin,

As I indicated in a prior email, this is not currently an IRB matter. If you conduct the study as indicated, UM is not engaged and IRB review is not needed. However, I have contacted the Chair of the Department whose faculty and students you wish to survey and forwarded the information you sent me so she understands what you are trying to do; she is yet to grant approval for this activity. If she does not grant such approval, you will be unable to proceed.

I am doing my best to facilitate this approval for you but until I get the Chair's permission, I'm afraid there's nothing more I can do. I will keep you posted should I get a response soon.

Regards,

Amanda Coltes-Rojas, MPH, CIP
Director, Regulatory Affairs & Education
Human Subject Research Office
acoltes@med.miami.edu

To: Kristen Schellhase
From: Linda Musante, Chair, IRB
Re: Proposal 09-01
Date January 13, 2009

The University of Tampa Institutional Review Board has reviewed your request to collect data from our Athletic Training faculty as part of your dissertation research at the University of Central Florida (UCF). The project is titled "Are Approaches to Teaching and/or Student Perception of Instruction Scores Related to the Amount of Faculty Formal Educational Coursework?"

We examined the letters of approval from the Institutional Review Boards at UCF and USF. This project was approved 11/08/08 by the University of Central Florida IRB and numbered SBE-08-05889.

We agree with the decision of the USF committee that your project does not require our approval as UT is not "engaged" in the conduct of the study. According to the OHRP, an institution is not engaged in research if their involvement is limited to "institutions…. that permit use of their facilities for intervention or interaction with subjects by investigators from another institution."

You therefore have our permission to invite our Athletic Training faculty to participate in your research. We assume that all procedures to protect human subjects that were approved by the IRB at UCF will be employed in the collection of data at U.T.

APPENDIX C:

INSTRUMENT PERMISSION LETTERS

Kristen Schellhase - RE: Approaches to Teaching Inventory

From: "Keith Trigwell" <k.trigwell@usyd.edu.au>
To: "Kristen Schellhase" <kschellh@mail.ucf.edu>
Date: 8/18/2008 8:57 PM
Subject: RE: Approaches to Teaching Inventory
Attachments: ATI-R 2007.doc

Hello Kristen,

Your note is all that is needed for permission. Please go ahead and use it. I have attached some of the notes we send to interested people.

Good luck,

Keith

Professor Keith Trigwell | Director | Institute for Teaching and Learning

Carslaw (F07) | University of Sydney | Sydney 2006 | Australia

T +61 2 9351 4572 F +61 2 9351 4331 Web: http://www.itl.usyd.edu.au

Co-President, International Society for the Scholarship of Teaching and Learning

Kristen Schellhase - Re: Dr. Marsh,

From: herb marsh <herb.marsh@education.ox.ac.uk>
To: "Kristen Schellhase" <kschellh@mail.ucf.edu>
Date: 8/18/2008 3:52 PM
Subject: Re: Dr. Marsh,
Attachments: Marsh 2007 SET ML Growth Modeling JEP.pdf; Marsh 2007 SETHandbook Chapter final pre-pub.doc

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The SEEQ instrument is in the public domain and can be used free of cost. Information is available from the Oxford SELF website (see address in my signature below). I have also attached a recent overview of my research in this area that might be of interest.

HERB

*** Please note my new email address herb.marsh@education.ox.ac.uk
My old address (herb.marsh@edstud.ox.ac.uk) will become inactive in a few months. ***
****
* Professor Herb Marsh, Education, Oxford University
* 15 Norham Gardens Rd Oxford OX2 6PY UK
* PH:01865 274 041(or +44 1865 274041);FAX:01865 274027
* Email: herb.marsh@education.ox.ac.uk
* Also see: SELF Website at Oxford
* http://www.edstud.ox.ac.uk/research/resgroup/self/index.php
****

APPENDIX D:

CONTACT LETTERS

------Via Email-------
January , 2009

Program Director – Florida ATEP
Address 1
Address 2

I am a doctoral student at the University of Central Florida (UCF). I am contacting you regarding important research I am conducting in the State of Florida. The research will allow me to gain information that is important to the field of athletic training education. It concerns the approaches to teaching, qualifications, and outcomes of athletic training instructors. It is very important that I obtain participation from every full-time athletic training educational program (ATEP) faculty member in Florida. As the program director of a Florida ATEP, your endorsement is critical to reaching this goal of full participation.

The study involves faculty completion of a 20 minute questionnaire related to approach to teaching and demographics. This questionnaire will be distributed in January. In addition, toward the middle of the semester, the faculty will be asked to have students in one of their courses complete a 15 minute evaluation of educational quality questionnaire. Although a faculty member can discontinue participation at any time during the study, the participant must complete both phases of the study for the data to be used in this research. Faculty names will be kept confidential and student questionnaire responses will be anonymous. The data will only be linked by a code.

I am writing in advance because I am hoping to gain endorsement from you so that each full-time faculty member in your ATEP participates. If you are willing to endorse this study, please reply to my email with your approval and a list of names, emails, and the work addresses of those full-time (teaching two or more courses per semester) faculty in your ATEP. I will need to have the names and contact information by January 12.

Thank you for your time and support of this endeavor. It is only with the help of generous people like you that my research can be successful. If you have questions for me regarding this request, feel free to contact me at 407-823-3463 or kschellh@mail.ucf.edu. If I do not hear from you via email, I hope I will be able to reach you by phone in order to discuss my research with you.

This project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Candidate and ATEP Program Director

------Via Email-------

January , 2009

Participant name
Address 1
Address 2

I am a doctoral student at the University of Central Florida (UCF). A few days from now, you will receive (by mail) a request for you to participate in some very important research. The program director at your institution has endorsed the participation of faculty in your program. It is hoped that every athletic training education program (ATEP) in Florida will participate. The research will allow me to gain information that is important to the field of athletic training education. It concerns the approaches to teaching, qualifications, and outcomes of athletic training instructors.

I am writing in advance because I have found that many people like to know ahead of time that they will be contacted. This study is important because the knowledge I gain will enable ATEP faculty to be better prepared to succeed in their jobs and meet the expectations of their students and administrators.

Thank you for your time and support of this endeavor. It is only with the help of generous people like you that my research can be successful.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Candidate and ATEP Program Director

January , 2009 ------ Via mail ------

Participant name
Address 1
Address 2

I am a doctoral student at the University of Central Florida (UCF). I am writing to request your assistance with a study regarding the approaches to teaching, qualifications and outcomes of athletic training education program (ATEP) faculty. This study is part of an effort to learn about current ATEP faculty, their approach to teaching, qualifications, and outcomes.

Your program director has endorsed the participation of faculty at your institution. According to your program director, you are a full-time ATEP faculty member at a university accredited by the Commission on Accreditation of Athletic Training Education (CAATE). At this time, I am contacting ATEP faculty to ask that you complete the enclosed questionnaire. Toward the middle of the semester, I will request that you have the students in one of your courses fill out a short evaluation of educational quality questionnaire.

Results from this questionnaire will be used to establish the current qualifications and experience level of ATEP faculty, as well as provide insight into how faculty approach their teaching. It is currently unclear whether ATEP faculty have formal training in educational principles or whether they learned these principles some other way. It is important for current faculty, like you, to assist the next generation of program directors with their professional preparation.

Your identity will only be revealed by your consent form signature which will be returned to me in a separate envelope. Your questionnaire and consent form will be assigned a code. This code will only be used to ensure that the correct number of phase two surveys are sent to those who agreed to participate. The researcher will not access those codes at any other time. Therefore your questionnaire responses will not be linked to your name or institution. Your responses will be released only as summary data. This questionnaire is voluntary. However, you can help me very much by taking a few minutes to share your information. If for some reason, you choose not to respond, please let me know. Although a faculty member can discontinue participation at any time during the study, the participant must complete both phases of the study for the data to be used in this research. I will need to have your questionnaires returned to me by February 16 using the pre-paid and addressed envelope enclosed.

If you have any questions about this research project, please contact me at (407) 823-3463. The project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Thank you very much for your assistance with this study.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Candidate and ATEP Program Director

------ via email ------

January , 2009

About two weeks ago, a questionnaire asking about the approaches to teaching and qualifications of ATEP faculty was mailed to you. Your name was given to me by your program director who has endorsed this study.

If you have already completed the questionnaire, I thank you for your generous assistance. If not, please do so today. I am especially grateful because it is only by asking people like you that I can find out about ATEP faculty. I hope that I can gain full participation from all full-time ATEP faculty in Florida.

Your identity will only be revealed by your consent form signature which will be returned to me in a separate envelope. Your questionnaire and consent form will be assigned a code. This code will only be used to ensure that the correct number of phase two surveys are sent to those who agreed to participate. The researcher will not access those codes at any other time. Therefore your questionnaire responses will not be linked to your name or institution. Your responses will be released only as summary data. This questionnaire is voluntary. However, you can help me very much by taking a few minutes to share your information. If for some reason, you choose not to respond, please let me know.

If you did not receive a questionnaire, or you misplaced it, please call me at 407-823-3463 or email me at kschellh@mail.ucf.edu and another one will be mailed to you. I will need to have your questionnaires returned to me by February 16.

If you have any questions about this research project, please contact me at (407) 823-3463. The project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Thank you very much for your assistance with this study.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Student and ATEP Program Director

February , 2009

Participant name
Address 1
Address 2

About four weeks ago, I mailed a questionnaire to you that asked about the approaches to teaching and qualifications of ATEP faculty. Your program director endorsed this study. If you have already completed the questionnaire, I thank you for your generous assistance. If not, please do so today.

The information gained from the faculty who have already responded describes a variety of approaches to teaching and qualifications. Although I mailed questionnaires to ATEP faculty in many types of universities, it is only by hearing from nearly everyone in the sample that I can be sure that my results are representative of all Florida ATEP faculty.

A few people have written to inform me that they are not ATEP faculty and should not have received the questionnaire. If this applies to you, please let me know by sending a quick note via email so I can delete you from the mailing list. If you misplaced the questionnaire, email me (kschellh@mail.ucf.edu) and I will get another to you right away.

Your identity will only be revealed by your consent form signature which will be returned to me in a separate envelope. Your questionnaire and consent form will be assigned a code. This code will only be used to ensure that the correct number of phase two surveys are sent to those who agreed to participate. The researcher will not access those codes at any other time. Therefore your questionnaire responses will not be linked to your name or institution. Your responses will be released only as summary data. This questionnaire is voluntary. However, you can help me very much by taking a few minutes to share your information. If for some reason, you choose not to respond, please let me know.

I hope that you will complete the questionnaire, but if for any reason you choose not to answer it, please let me know by sending an e-mail. I will need to have your questionnaires returned to me by February 16.

If you have any questions about this research project, please contact me at (407) 823-3463. The project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Thank you very much for your time and attention,

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Student and Program Director

February , 2008 by mail
Participant name
Address 1
Address 2

During the past few months, I have sent you several e-mails about an important research study I am conducting regarding ATEP faculty. It's purpose is to help understand the approaches to teaching and qualifications of current ATEP faculty. The questionnaire was mailed to you in January. If you have already completed the questionnaire, I thank you for your generous assistance. If not, please do so today. The study is drawing to a close, and this is the last contact that I will make to the sample of ATEP faculty.

I am sending this final contact because of my concern that faculty who have not responded have had different experiences than faculty who have responded. Hearing from all Florida ATEP faculty will help me ensure that the results are as accurate as possible.

Your identity will only be revealed by your consent form signature which will be returned to me in a separate envelope. Your questionnaire and consent form will be assigned a code. This code will only be used to ensure that the correct number of phase two surveys are sent to those who agreed to participate. The researcher will not access those codes at any other time. Therefore your questionnaire responses will not be linked to your name or institution. Your responses will be released only as summary data. This questionnaire is voluntary. However, you can help me very much by taking a few minutes to share your information. If for some reason, you choose not to respond, please let me know.

I want to assure you that your response to the study is voluntary, and if you prefer not to respond, that is fine. If you are not an ATEP faculty member, and you feel you received the questionnaire in error, please let me know by sending a return e-mail.

I hope that you will complete the questionnaire, but if for any reason you choose not to answer it, please let me know by sending an e-mail. I will need to have your questionnaires returned to me by February 16. If you misplaced the questionnaire, please let me know and I will send a new one right away.

If you have any questions about this research project, please contact me at (407) 823-3463. The project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Finally, I appreciate your willingness to consider my request as I conclude this effort.

Thank you very much.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Student and Program Director

------ via mail -----

March , 2009

Dear ATEP Faculty member,

About six weeks ago, you completed a questionnaire regarding the approaches to teaching and qualifications of ATEP faculty. I greatly appreciate that you completed the questionnaire and want to remind you that you agreed to participate in the second phase of this research. The second part of this study will examine whether students' perception of instruction are different depending on the qualifications of the instructor. Although a faculty member can discontinue participation at any time during the study, the participant must complete both phases of the study for the data to be used in this research.

I now request that you have all students in one of your courses complete the enclosed Student Evaluation of Educational Quality Questionnaire (SEEQ). If possible, please use the course you elected to use as the context for the questionnaire you completed six weeks ago (an ATEP course that does not have a separate laboratory component and is not a clinical education course). The questionnaire should take no more than 15 minutes. Please answer a few short questions, and give the enclosed packet of questionnaires to a reliable student in your course. Directions for the student are enclosed in the packet, along with student consent forms and the questionnaire. The student will administer the questionnaire and return the sealed and signed envelope to you so that you can put it in the mail. For your convenience, a self-addressed and stamped envelope is provided.

Your students' answers are completely anonymous and will be released only as summary data which will not be linked to you as an individual or to your school. Student responses will only be linked to the faculty responses by a code. You are not required to participate further. Your students are not required to participate. This survey is voluntary. However, you can help me very much by taking a few minutes of class time to share the requested information. If for some reason, you choose not to participate further, please let me know by returning the self-addressed and stamped envelope, stating that you are unable to participate. I will need to have the questionnaires returned to me by April 17.

If you have any questions about this research project, please contact me at (407) 823-3463. The project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Thank you very much for your assistance with this study.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Candidate and ATEP Program Director

------ via e-mail -----

March , 2009

About six weeks ago, you were sent a questionnaire regarding the approaches to teaching and qualifications of ATEP faculty. I greatly appreciate that you completed the questionnaire and want to remind you that you agreed to participate in the second phase of this research. The second part of this study will examine whether students' perception of instruction are different depending on the qualifications of the instructor.

A set of questionnaires was mailed to you today. I wanted to make you aware that the questionnaires were on their way to your office so that you could plan to distribute them in one of your courses. If possible, please use the course you elected to use as the context for the questionnaire you filled out a few weeks ago (an ATEP course that does not have a separate laboratory component and is not a clinical education course). The questionnaire should take no more than 15 minutes. Complete directions will be enclosed with the questionnaires. I will need to have your questionnaires returned to me by April 17. Although a faculty member can discontinue participation at any time during the study, the participant must complete both phases of the study for the data to be used in this research.

Your students' answers are completely anonymous and will be released only as summary data which will not be linked to you as an individual or to your school. Student responses will only be linked to the faculty responses by a code.

If you do not receive the envelope of questionnaires, please call me at 407-823-3463 and I will get another set mailed to you right away.

If you have any questions about this research project, please contact me at (407) 823-3463. The project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Thank you for your assistance with this study.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Student and ATEP Program Director

----- via email -----

March , 2009

Participant name
Address 1
Address 2

About three weeks ago, I mailed a set of questionnaires for you to distribute to the students in one of your courses. The set of questionnaires was the second phase of a study investigating the approaches to teaching, qualifications and outcomes of ATEP faculty. When you filled out the questionnaire, it was with the understanding that a second questionnaire was to be sent later. I just wanted to send a reminder since I know that the end of the semester can be quite busy. If you have already asked your students to complete the questionnaires, I thank you for your generous assistance. If not, please do so soon.

The information gained from the students who have already responded describes a variety of outcomes. Although I mailed questionnaires to faculty in many types of universities, it is only by hearing from nearly every full time ATEP faculty member in Florida that I can be sure that my results are representative of all Florida ATEP faculty.

A comment on my survey procedures; your students' answers are completely anonymous and will be released only as summary data which will not be linked to you as an individual or to your school. Student responses will only be linked to the faculty responses by a code.

I hope that you will return the student questionnaires soon, but if for any reason, you choose not to complete this phase of the study, please let me know by sending an e-mail or returning the self-addressed and stamped envelope. I will need to have your questionnaires returned to me by April 17. Although a faculty member can discontinue participation at any time during the study, the participant must complete both phases of the study for the data to be used in this research.

If you have any questions about this research project, please contact me at (407) 823-3463. The project has been approved by the UCF IRB. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Thank you very much for your time and attention,

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS
Doctoral Student and Program Director

APPENDIX E:

PHASE ONE AND PHASE TWO QUESTIONNIARES

Code:

START HERE

Instructions: Please mark only one answer for each of the questions below.

1. Are you currently considered full-time faculty (defined as teaching two or more courses each semester) in an ATEP program?

☐ Yes
☐ No

APPROACHES TO TEACHING INVENTORY-R (Prosser & Trigwell, 2004)

This inventory is designed to explore a dimension of the way that academics go about teaching in a specific context or subject or course. This may mean that your responses to these items in one context may be different to the responses you might make on your teaching in other contexts or subjects. For this reason we ask you to describe your context. If possible, please use an ATEP course that does not have a separate laboratory component and is not a clinical education course as your context.

Please name and describe the subject/course you are using as context:

_____

_____

What is the course prefix and number?

_____

2. For each item please circle one of the numbers (1-5). The numbers stand for the following responses:
   1 - this item was **only rarely or never** true for me in this subject.
   2 - this item was **sometimes** true for me in this subject.
   3 - this item was true for me **about half the time** in this subject.
   4 - this item was **frequently** true for me in this subject.
   5 - this item was **almost always or always** true for me in this subject.

Please answer each item.
Do not spend a long time on each: your first reaction is probably the best one.

		Only Rarely				Almost Always
1.	In this subject students should focus their study on what I provide them.	1	2	3	4	5
2.	It is important that this subject should be completely described in terms of specific objectives that relate to formal assessment items.	1	2	3	4	5
3.	In my interactions with students in this subject I try to develop a conversation with them about the topics we are studying.	1	2	3	4	5
4.	It is important to present a lot of facts to students so that they know what they have to learn for this subject.	1	2	3	4	5
5.	I set aside some teaching time so that the students can discuss, among themselves, key concepts and ideas in this subject.	1	2	3	4	5
6.	In this subject I concentrate on covering the information that might be available from key texts and readings.	1	2	3	4	5
7.	I encourage students to restructure their existing knowledge in terms of the new way of thinking about the subject that they will develop.	1	2	3	4	5
8.	In teaching sessions for this subject, I deliberately provoke debate and discussion.	1	2	3	4	5

TURN TO OPPOSITE SIDE

		Only Rarely				Almost Always
9.	I structure my teaching in this subject to help students to pass the formal assessment items.	1	2	3	4	5
10.	I think an important reason for running teaching sessions in this subject is to give students a good set of notes.	1	2	3	4	5
11.	In this subject, I provide the students with the information they will need to pass the formal assessments.	1	2	3	4	5
12.	I should know the answers to any questions that students may put to me during this subject.	1	2	3	4	5
13.	I make available opportunities for students in this subject to discuss their changing understanding of the subject.	1	2	3	4	5
14.	It is better for students in this subject to generate their own notes rather than copy mine.	1	2	3	4	5
15.	A lot of teaching time in this subject should be used to question students' ideas.	1	2	3	4	5
16.	In this subject my teaching focuses on the good presentation of information to students.	1	2	3	4	5
17.	I see teaching as helping students develop new ways of thinking in this subject.	1	2	3	4	5
18.	In teaching this subject it is important for me to monitor students' changed understanding of the subject matter.	1	2	3	4	5
19.	My teaching in this subject focuses on delivering what I know to the students.	1	2	3	4	5
20.	Teaching in this subject should help students question their own understanding of the subject matter.	1	2	3	4	5
21.	Teaching in this subject should include helping students find their own learning resources.	1	2	3	4	5
22.	I present material to enable students to build up an information base in this subject.	1	2	3	4	5

TURN TO NEXT PAGE

DEMOGRAPHIC QUESTIONS

The following questions are related to your personal educational background and current position.

1. Including this year, how many years of experience do you have teaching at least two courses per semester in an ATEP?
_____ years (in whole numbers)

2. How many years of experience do you have working directly with patient/athlete care (at least 50% of your job responsibilities)?
_____ years (in whole numbers)

3. Which of the following best describes the college your ATEP is housed in?
☐ College of Allied Health
☐ College of Education
☐ College of Medicine (Medical School)
☐ Other _____

4. Which of the following best describes your current position?
☐ Tenured
☐ Tenure-track
☐ Non-tenure track

5. How much are each of the following emphasized for annual evaluation, tenure and/or promotion in your position as athletic training faculty?	**Not at All**	**Small Extent**	**Some Extent**	**Great Extent**
Teaching	1	2	3	4
Research / Scholarship	1	2	3	4
Service	1	2	3	4

6. In an average week, how many hours do you spend on the following tasks?	**0 Hours**	**1 - 3 Hours**	**4 - 6 Hours**	**7 - 9 Hours**	**10 or More Hours**
Preparing to teach	1	2	3	4	5
Teaching	1	2	3	4	5
Academic Administration	1	2	3	4	5
Advising	1	2	3	4	5
Research	1	2	3	4	5
Service to University or Profession	1	2	3	4	5
Athletic Administration	1	2	3	4	5
Working with patients/athletes	1	2	3	4	5
Other	1	2	3	4	5

7. Which of the following best describes your undergraduate degree?
☐ BA
☐ BS
☐ other (please describe - _____)

TURN TO OPPOSITE SIDE

8. Which of the following best describes your undergraduate degree major?

- ☐ Biomechanics / Kinesiology
- ☐ Education
- ☐ Exercise Physiology / Exercise Science
- ☐ Health
- ☐ Physical Education
- ☐ Sports Medicine / Athletic Training
- ☐ other (please describe - _____)

9. Did your undergraduate degree include a minor or specialization in education?

- ☐ Yes
- ☐ No

10. How many education courses did you complete during your undergraduate degree major? "Education course" is described as any course containing curriculum, teaching methods, educational theory or similar educational concepts. "Course" is any semester-long, two to four credit instructional unit.

_____ courses

11. Which of the following best describes your master's degree?

- ☐ MA
- ☐ MEd
- ☐ MS
- ☐ other (please describe - _____)

12. Which of the following best describes your master's degree?

- ☐ Biomechanics / Kinesiology
- ☐ Education
- ☐ Exercise Physiology / Exercise Science
- ☐ Health and Human Performance
- ☐ Health Education
- ☐ Physical Education
- ☐ Physical Therapy
- ☐ Sports Administration
- ☐ Sports Medicine / Athletic Training
- ☐ other (please describe - _____)

13. How many education courses did you complete during your masters' program? "Education course" is described as any course containing curriculum, teaching methods, educational theory or similar educational concepts. "Course" is any semester-long, two to four credit instructional unit.

_____ courses

14. Which of the following best describes your doctoral degree designation?

- ☐ DPT
- ☐ EdD
- ☐ PhD
- ☐ other (please describe _____)
- ☐ I am currently in the process of earning a doctoral degree (Please list degree _____)
- ☐ I have not completed a doctoral degree (**Skip to question 17**)

15. Which of the following best describes your doctoral degree major (completed or in progress)?

- ☐ Biomechanics
- ☐ Curriculum and Instruction
- ☐ Education Leadership
- ☐ Exercise Physiology / Exercise Science
- ☐ Health and Human Performance
- ☐ Health Education
- ☐ Higher Education
- ☐ Higher Education Administration
- ☐ Physical Education
- ☐ Physical Therapy
- ☐ Sports Medicine / Athletic Training
- ☐ other (please describe your major- _____)

16. How many education courses have you completed as a part of your doctoral program? "Education course" is described as any course containing curriculum, teaching methods, educational theory or similar educational concepts. "Course" is any semester-long, two to four credit instructional unit.
_____ courses

17. Did you complete a k-12 teacher certification program or alternate certification program?
☐ Yes
☐ No
☐ I am currently in progress with a certification program

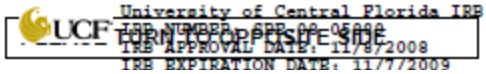
18. What is your age?

_____ years

19. What is your gender?

☐ Male
☐ Female

20. Race/Ethnicity
☐ Native American or Alaska Native
☐ Asian
☐ Black or African-American
☐ Native Hawaiian or Other Pacific Islander
☐ White
☐ Latino or Hispanic



INFORMATION FOR PHASE 2

The researcher intends to continue the study by comparing data gained by ATEP faculty with student evaluations of teaching effectiveness. Toward the end of this semester, I will ask you to distribute a short questionnaire to the students in one of your courses (the same course you used as context for the questionnaire you filled out today). This questionnaire is very similar to the end-of–semester teacher evaluations you are probably accustomed to using. The questionnaire will take approximately 15 minutes of your class time; however it will bring valuable insight into the outcomes of ATEP faculty with varying qualifications.

The questionnaires will be mailed to you approximately four weeks before the end of the semester. We will ask that you distribute them in the course that you used as context for the above questionnaire (an ATEP course that does not have a separate laboratory component and is not a clinical education course). The questionnaires will be accompanied by a self-addressed and stamped envelope so that participation will not be of any monetary cost to you.

I want to stress that, once returned, the questionnaires will not be linked to your name or the name of your school in any way. An identification code will be used for tracking purposes and to link your phase 1 questionnaire data to the phase 2 student data. The responses of your students will be kept completely confidential. The questionnaires themselves will have no identifying questions on them.

21. How many students do you have in your course? The information gained from this item will be use to determine the number of student questionnaires to send.

_____ students

THANK YOU FOR YOUR PARTICIPATION!

Code:

PHASE 2 – INSTRUCTIONS FOR THE TEACHER

Please distribute the enclosed questionnaires to the students in one of your courses. If possible, please use the same ATEP course (an ATEP course that does not have a separate laboratory component and is not an clinical education course) that you used as context for the phase one questionnaire.

1. Answer the following brief questions and have the student-proctor enclose this form with the students' questionnaires.

2. Select a trustworthy student to hand-out the evaluations. Directions for the student-proctor are enclosed.

3. Please allow approximately 15 minutes for the students to fill out the questionnaires.

4. When all questionnaires are completed, the student will return the sealed envelope for you to place in the mail.

I want to stress that, once returned, the questionnaires will not be linked to your name or the name of your school in any way. An identification code will be used for tracking purposes and to link your phase 1 questionnaire data to the phase 2 student data. The responses of your students will be kept completely confidential. The questionnaires themselves will have no identifying questions on them.

For your personal information, a copy of the questionnaire is enclosed for you to view and keep.

1. Please name and describe the subject/course you are using as context:

_____
_____
_____

2. What is the course prefix and number?

_____

3. Was this the same course you used as context for the phase 1 questionnaire?
☐ Yes
☐ No

4. How many students were given a questionnaire?
_____ Students

5. What date are the questionnaires being given out?
_____ (MM/DD/YYYY)

6. What time of day are the questionnaires being given out?
_____ AM/PM
(circle one)

PHASE 2 – INSTRUCTIONS FOR THE STUDENT-PROCTOR

Attached to this instruction sheet are consent forms and questionnaires. Please distribute one consent form and one questionnaire to each student in your class.

Please only distribute the questionnaire to students in the class who are over the age of 18.

Please read the following instructions to the class:

> "The following questionnaire asks you to evaluate the teaching effectiveness of your instructor. Please read the consent form you were given and keep this consent form for your records. Please do not discuss your questionnaire responses with others in the class. Your responses will not be given to the instructor and your name will not be connected with the responses in any way. Please give your completed questionnaire to me when you are finished."

Please allow approximately 15 minutes for the students to fill out the questionnaires.

Please do not allow students to discuss their responses with others.

When all questionnaires are completed, please seal the envelope, sign it across the seal and return envelope to your teacher for placement in the mail.

Thank you for your participation!

Code:

Need to attach waiver of consent info here

START HERE

STUDENT EVALUATION OF EDUCATIONAL QUALITY QUESTIONNIARE (SEEQ) (MARSH, © 2002)

This evaluation form is intended to measure your reaction to this instructor and course. Results will be used in a research study and will not be given to your instructor at any time. The results may improve athletic training education in the future, so please take your responses seriously. When you have finished, a designated student will pick up the evaluations and seal them in an envelope to be mailed to the researcher. Your responses will remain anonymous and the results will not be given to the instructor.

elect the best response for each of the following statements, leaving a response blank only if it is learly not relevant.

	LEARNING / ACADEMIC VALUE As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
1.	You found the course to be intellectually challenging and stimulating.	1	2	3	4	5	6	7	8	9
2.	You have learned something which you consider valuable.	1	2	3	4	5	6	7	8	9
3.	Your interest in the subject has increased as a consequence of this course.	1	2	3	4	5	6	7	8	9
4.	You have learned and understood the subject materials in this course.	1	2	3	4	5	6	7	8	9

	STAFF MEMBER ENTHUSIASM As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
5.	Staff member was enthusiastic about teaching the class.	1	2	3	4	5	6	7	8	9
6.	Staff member was dynamic and energetic in conducting the class.	1	2	3	4	5	6	7	8	9
7.	Staff member enhanced presentations with the use of humor.	1	2	3	4	5	6	7	8	9
8.	Staff member's style of presentation held your interest in class.	1	2	3	4	5	6	7	8	9

	ORGANIZATION / CLARITY As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
9.	Staff member's explanations were clear.	1	2	3	4	5	6	7	8	9
10.	Class materials were well prepared and carefully explained.	1	2	3	4	5	6	7	8	9
11.	Proposed objectives agreed with those actually taught so you knew where the class was going.	1	2	3	4	5	6	7	8	9
12.	Staff member gave presentations that facilitated taking notes.	1	2	3	4	5	6	7	8	9

	GROUP INTERACTION As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
13.	Students were encouraged to participate in class discussions.	1	2	3	4	5	6	7	8	9
14.	Students were invited to share their ideas and knowledge.	1	2	3	4	5	6	7	8	9
15.	Students were encouraged to ask questions and were given meaningful answers.	1	2	3	4	5	6	7	8	9
16.	Students were encouraged to express their own ideas and/or question the staff member.	1	2	3	4	5	6	7	8	9

	INDIVIDUAL RAPPORT As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
17.	Staff member was friendly towards individual students.	1	2	3	4	5	6	7	8	9
18.	Staff member had a genuine interest in individual students.	1	2	3	4	5	6	7	8	9
19.	Staff member made students feel welcome in seeking help/advice in or outside of class.	1	2	3	4	5	6	7	8	9
20.	Staff member was adequately accessible to students during office hours or after class.	1	2	3	4	5	6	7	8	9

PLEASE TURN TO THE NEXT PAGE

	BREADTH OF COVERAGE As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
21.	Staff member contrasted the implications of various theories.	1	2	3	4	5	6	7	8	9
22.	Staff member presented the background or origin of ideas/concepts developed in class.	1	2	3	4	5	6	7	8	9
23.	Staff member presented points of view other than his/her own when appropriate.	1	2	3	4	5	6	7	8	9
24.	Staff member adequately discussed current developments in the field.	1	2	3	4	5	6	7	8	9

	EXAMINATION / GRADING As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
25.	Feedback on assessments/graded material was valuable.	1	2	3	4	5	6	7	8	9
26.	Methods of assessing student work were fair and appropriate.	1	2	3	4	5	6	7	8	9
27.	Assessments/examinations tested unit's content as emphasized by staff member.	1	2	3	4	5	6	7	8	9

	ASSIGNMENTS / READINGS As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
28.	Required readings/texts were valuable.	1	2	3	4	5	6	7	8	9
29.	Readings/assignments etc. contributed to appreciation and understanding of the unit.	1	2	3	4	5	6	7	8	9

	OVERALL RATING As a description of this course/instructor, this statement is:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree
30.	Overall, I am satisfied with the quality of teaching in this unit/course	1	2	3	4	5	6	7	8	9
31.	Overall my experiences with this staff member have been positive	1	2	3	4	5	6	7	8	9

PLEASE TURN TO OPPOSITE SIDE

OPEN ENDED COMMENTS

1. Please indicate the important characteristics of the lecturer/class that have been found valuable to your overall learning experience.

_____
_____
_____
_____
_____
_____
_____
_____
_____

2. Please indicate the particular areas of this lecturer/class that you feel are important for he/she to improve.

_____
_____
_____
_____
_____
_____
_____
_____
_____

END HERE

THANK YOU FOR YOUR PARTICIPATION!

APPENDIX F:

FACULTY CONSENT FORM

Dear full-time athletic training faculty member,

I am a doctoral student at the University of Central Florida. As part of my doctoral program, I am conducting a research study titled "Are Approaches to Teaching and/or Student Perception of Instruction Scores Related to the Amount of Faculty Formal Educational Coursework?" The purpose of my doctoral dissertation is to learn about the approaches to teaching, qualifications, and students' evaluations of teaching of athletic training educational program (ATEP) faculty in Florida. I am asking you to participate in this research because you have been identified as a full-time ATEP faculty member. You must be 18 years old to participate in this research and sign this consent form.

This research involves two phases of data collection. The first phase consists of your completion of the attached questionnaire. This survey should take no longer than 20 minutes. You will not have to answer any question you do not wish to answer. You can discontinue participation at any time. Your identity will only be revealed by your consent form signature which will be returned to me in a separate envelope. Your questionnaire and consent form will be assigned a code. This code will only be used to ensure that the correct number of phase two surveys are sent to those who agreed to participate. The researcher will not access those codes at any other time. Therefore your questionnaire responses will not be linked to your name or institution. Your responses will be released only as summary data.

The second phase consists of a second survey (sent by mail) toward the middle of this semester. This survey should be given to the students in one of your courses and returned to me. Only those students over the age of 18 should be given a questionnaire. Detailed instructions will be given at that time. A waiver of consent for student participation was authorized by the University of Central Florida IRB. Consent from your students will be evidenced by their completion of the questionnaire and the questionnaire will not ask for their name. The anonymous student questionnaire should take no longer than 15 minutes. The students will not have to answer any question they do not wish to answer. The students can discontinue participation at any time. Although a faculty member can discontinue participation at any time during the study, the participant must complete both phases of the study for the data to be used in this research.

Your questionnaire data will be linked to your students' questionnaire data only by a code. Your students' names will not be collected at any time. Data will be reported in aggregate and will be anonymous.

The only possible risk is a breach of confidentiality. However, I can assure you that your name will only be linked to a code. The names and codes will be stored in a password protected computer and the researcher will only access this file to determine how many surveys should be sent to whom. There is no compensation or direct benefit to you or your students as participants in this research. You are free to withdraw your consent to participate and may discontinue your participation in the research at any time without consequence.

If you have any questions about this research project, please contact me at (407) 823-3463. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Please sign and return this copy of the letter in the enclosed envelope along with your completed questionnaire. A copy of this document has been provided in this envelope. Please keep the copy for your records. By signing this consent form, you give me permission to report your responses anonymously in the final manuscript to be submitted to my faculty supervisor as part of my dissertation.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS

I, _____ have read the procedure described above.

_____ I voluntarily agree to participate in the research.

_____ I have received a duplicate copy of this consent form.

_____ / _____

Participant Date

Address: _____

Street City State Zip

UCF University of Central Florida IRB
IRB NUMBER: SBE-08-05889
IRB APPROVAL DATE: 11/8/2008
IRB EXPIRATION DATE: 11/7/2009

APPENDIX G:

STUDENT CONSENT FORM

Dear athletic training student,

I am a doctoral student at the University of Central Florida. As part of my doctoral program, I am conducting a research study titled "Are Approaches to Teaching and/or Student Perception of Instruction Scores Related to the Amount of Faculty Formal Educational Coursework?" The purpose of my doctoral dissertation is to learn about the approaches to teaching, qualifications, and students' evaluations of teaching of athletic training educational program (ATEP) faculty in Florida. I am asking you to participate in this research because you have been identified as a student in a Florida ATEP. You must be 18 years old to participate in this research.

This survey should take no longer than 15 minutes. You will not have to answer any question you do not wish to answer. You can discontinue participation at any time. Your identity will not be known to me or any other persons. Your names will not be collected at any time. Data will be reported in aggregate and will be anonymous.

There are no anticipated risks, compensation or direct benefits to you as participants in this research. You are free to withdraw your consent to participate and may discontinue your participation in the research at any time without consequence.

If you have any questions about this research project, please contact me at (407) 823-3463. My faculty supervisors are Dr. David Boote (407) 823-4160 and Dr. Debbie Hahs-Vaughn (407) 823-1762. Research at the University of Central Florida is conducted under the oversight of the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone number is (407) 823-2901.

Please keep this copy of the consent form for your records. Your consent will be evidenced by your completion of the attached questionnaire.

Sincerely,

Kristen C. Schellhase, MEd, ATC, LAT, CSCS

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