

THE RELATIONSHIP OF SELF EFFICACY AND JOB CULTURE TO JOB  
SATISFACTION AMONG CERTIFIED ATHLETIC TRAINERS

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THE RELATIONSHIP OF SELF EFFICACY AND JOB CULTURE TO JOB  
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## VITA

Jamie Saddler Gamber, daughter of Mr. and Mrs. James David Saddler, was born November 2, 1972. She graduated from St. Martinville Senior High School in 1990. She graduated from the University of Louisiana-Lafayette with a Bachelor of Science in Education with an emphasis in Exercise Science and Sports Medicine. In May of 1997, she received a Master of Education degree from Clemson University in Counseling and Guidance with an emphasis in Student Affairs. During this time she was a Graduate Assistant Athletic Trainer for the Clemson University Athletics Department. She then went on to Middle Tennessee State University as an Assistant Athletic Trainer for the Athletics Department and Instructor in the Athletic Training Education Program. In 1999, she came to Auburn, AL and served as the Clinical Coordinator and later, Director, of the Kenny Howard Athletic Training Fellowship Program at Auburn University. She married James C. “Arnold” Gamber, III in June of 2000 and began her course work in the Summer of 2002.

DISSERTATION ABSTRACT

THE RELATIONSHIP OF SELF EFFICACY AND JOB CULTURE TO JOB  
SATISFACTION AMONG CERTIFIED ATHLETIC TRAINERS

Jamie Saddler Gamber

Doctor of Education, August 8, 2005  
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Few studies have examined job satisfaction levels of athletic trainers and no known research exists examining the influences of athletic trainer's self efficacy and job culture on levels of job satisfaction. The purpose of this study was to identify job satisfaction levels of certified athletic trainers based on their levels of self efficacy and their perceptions of their job cultures.

Bandura's Social Cognitive Theory served as the theoretical framework and Bandura's Triadic Reciprocal Causation Model guided the study. Self efficacy, perceptions of job culture, and job satisfaction were measured by the Self Efficacy Scale,

Perceptions of Job Culture Scale, and the Job Satisfaction Scale for Certified Athletic Trainers, respectively.

A correlational design using a survey approach was used to answer the research questions. The sample comprised 374 employed certified athletic trainers who were members of the National Athletic Trainers' Association. Participants were employed in a variety of athletic training job settings including university/college, high school, clinic, clinic outreach/high school, professional team, or industry.

Internal consistency (Cronbach's alpha) for the scores of self efficacy (.91), job culture (.91), and job satisfaction (.76) were calculated. Relationships among self efficacy, job culture and job satisfaction of certified athletic trainers were examined using a series of three Pearson correlations. Simultaneous multiple regression analysis indicated that there was a significant relationship between job culture and job satisfaction, however, the significance was not practical. No significant relationship was found between self efficacy and job satisfaction, and it could not be determined that self efficacy and job culture collectively predict job satisfaction.

This study contributes to the literature on job satisfaction among certified athletic trainers. It offers administrators, educators, and human resources personnel psychometrically sound instruments to evaluate self efficacy levels, perceptions of job culture, and levels of job satisfaction among their employed certified athletic trainers.

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## CHAPTER I: INTRODUCTION

### Overview

There are nearly 20 million youth athletes participating in non-scholastic organized sports in the United States (DuRant, Pendergrast, Donner, Seymore, & Gaillard, 1991). In addition, more than 6 million students participate in high school athletics (National Federation of State High School Associations, 1997) and over 360 thousand National Collegiate Athletic Association (NCAA) student athletes (NCAA, n.d.) compete at colleges and universities. The popularity of physical exercise and the attendant risk of injury has resulted in the recognition of the need for athletic trainers, professionals specifically trained to assist athletes in the rehabilitation and prevention of injuries.

Athletic trainers work in a variety of settings, ranging from health clubs, secondary schools, colleges, Olympic training facilities, and professional leagues. The critical role that athletic trainers play in injury assessment, rehabilitation, and prevention has generated an impetus for professional certification of athletic trainers. The emergence of the athletic training profession and the increase in athletic trainers created a need for the creation of the National Athletic Trainers' Association (NATA). Founded in 1950, the mission of the NATA is "to enhance the quality of health care for athletes and those engaged in physical activity and to advance the profession of athletic training through



education and research in prevention, evaluation, management, and rehabilitation of injuries” (NATA, Home, n.d., ¶ 1).

As with many professions (e.g., medicine, accounting, education) a recognized need for a certification process that standardizes criteria for best practice resulted in the creation of a Board of Certification. Created in 1969, the mission of the Board of Certification is “to certify athletic trainers and to identify for the public, quality healthcare professionals through a system of certification, adjudication, standards of practice and continuing competency programs” (Board of Certification, About Us, n.d., ¶ 1).

Therefore the certified athletic trainer (ATC) is directly responsible for the care, safety, and quick return of the injured athlete to competition. Athletic trainers attain their national certification through the Board of Certification and may become members of the NATA. The athletic trainer plays an integral role in the lives of the athletes in which he/she cares for, and this role goes well beyond the physical rehabilitation (Gaunya, 1982). He/she is there from the initial time of injury, throughout the rehabilitation process and progression back into practice and competition (Prentice, 1991). This process may call on the athletic trainer to assume the roles of educator, counselor, and friend (Furney, 1985; Geick, 1977).

Athletic trainers serve a valuable role in preventing injuries, along with evaluation and treatment of athletic injuries (Arnheim & Prentice, 2000; Koester, 2000; Prentice, 1991). Because injury is a natural risk to participation in organized sports, the athletic trainer can educate coaches, athletes, and parents on proper training methods and

sport-specific techniques in an effort to minimize risk of injury (Koester, 2000), therefore fulfilling the 1998 policy (H-470.995 Athletic Sports Medicine) requirements encouraged by the American Medical Association (American Medical Association, 1998). The American Medical Association (AMA) encourages an adequate Athletic Medicine Unit be established in every school with a sports program. The Athletic Medicine Unit should include an allopathic or osteopathic physician director licensed to practice medicine, an athletic health coordinator (preferably a NATABOC certified athletic trainer), and any other necessary personnel (American Medical Association, 1998). This important relationship is worthy of study and served as the genesis of this study. Given the paucity of literature on the relationships between job satisfaction, job culture, and self-efficacy an effort was made to begin to establish a nomological net (Cronbach & Meehl, 1955). Certainly, many other variables could be suggested as impacting the degree of job satisfaction in athletic trainers and undoubtedly some deserve further study. However, by grounding the study of job satisfaction for athletic trainers within these two basic variables, self efficacy and job culture, a substantive first step will be taken to understanding athletic trainer job satisfaction as well as providing a theoretical framework for further study.

### Theoretical Framework

Bandura's Social Cognitive Theory (1986) served as the theoretical framework and Bandura's (1986) Triadic Reciprocal Causation Model guided the study. Bandura (1986) identified the relationships between three major classes of determinants in the triadic reciprocal causation consisting of personal (in the form of cognition, affect and

biological events), behavioral, and environmental factors. The model proposes that each construct is an interacting determinant upon the other two constructs. Personal agency affects behavior as well as environment. Environment, in turn, affects personal agency and behavior. Finally, behavior influences personal agency and the environment. It has been depicted as a triangle with bi-directional arrows pointing to each construct.

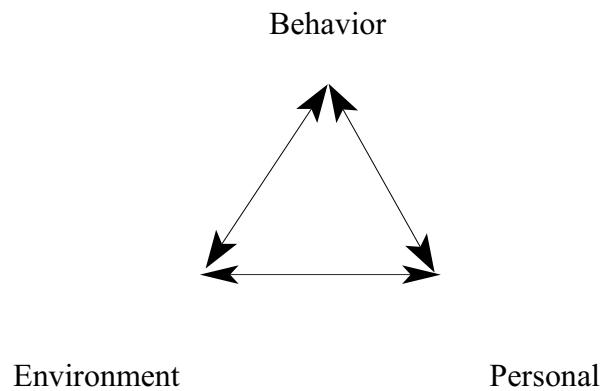


Figure 1: Bandura's (1986) Triadic Reciprocal Causation

Using Bandura's (1986) triadic reciprocal causation model, job satisfaction has been translated as the behavioral construct, self efficacy as the personal construct, and job culture as the environmental construct. Figure 2 depicts this translation.

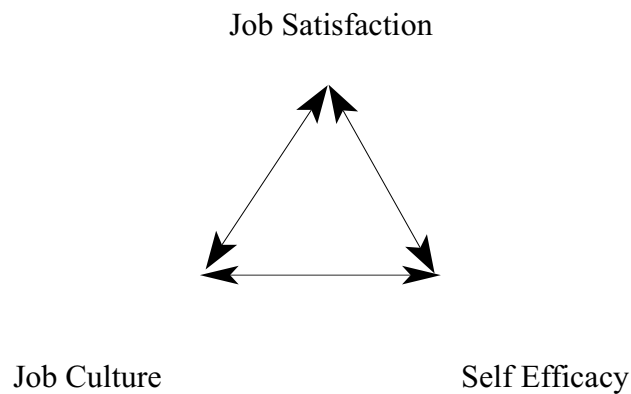


Figure 2: Job Satisfaction Model for Certified Athletic Trainers

## Review of Related Literature

### *Self Efficacy*

According to Albert Bandura (1997), “perceived self efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). The perceived self efficacy levels of individuals will influence several things including: the courses of action chosen, how much effort they will put forth in given situations, how long they will persevere in the face of difficulties and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with environmental demands, and the level of accomplishments they realize (Bandura, 1997).

Self efficacy is an example of the personal factors construct in the triadic reciprocal causation model by Bandura in social cognitive theory. Bandura (1986) contends there is a triadic reciprocal causation between self and society in which behavior, internal personal factors (cognitive, affective and biological events) and the external environment act as reciprocating factors. Although each factor reciprocates upon the other in human functioning, the reciprocity does not mean the constructs interact with equal strength.

According to Bandura (1997), “cultural values and practices affect how efficacy beliefs are developed, the purposes to which they are put and the way in which they are best exercised in particular cultural milieus” (p. 32). Therefore, the following section provides an overview of culture as it relates to an organization.

## *Culture*

Edgar Schein (1992) stated, “A group has a culture when it has had enough of a shared history to have formed such a set of *shared* assumptions” (p. 12). The National Athletic Trainers’ Association (NATA) was officially formed in 1950 in Kansas City, Missouri, when a core group of 101 athletic trainers came together for the first annual meeting; however, conceptualization and formation of athletic training characteristics began in the early nineteenth century. The mission of the National Athletic Trainers’ Association is “to enhance the quality of health care for athletes and those engaged in physical activity and to advance the profession of athletic training through education and research in prevention, evaluation, management, and rehabilitation of injuries” (NATA, Home, n.d., ¶ 1). The culture of athletic training involves the belief in providing proactive health care of athletes, along with educating all individuals within its organization and the people they serve.

Culture is seen as an aspect of an organization and it is important to understand the interdependence of different parts of the organization in relationship with environmental variables (van Muijen, 1998). Organizational culture, according to Tichy (1982), is sometimes viewed as the glue that holds the organization together. Smirchich (1983) implied “that the symbolic cultural dimension in some way contributes to the overall systemic balance and effectiveness of an organization” (p. 344). Therefore, culture is seen as an important variable to consider in this study of job satisfaction in athletic trainers. The culture of athletic training may determine its success or failure as an organization.

### *Job Satisfaction*

Locke (1976) contended, “Job satisfaction results from the perception that one’s job fulfills or allows the fulfillment of one’s important job values, providing and to the degree that those values are congruent with one’s needs” (p. 1307). In his observations in 1912, Taylor surmised that workers have minds and the appraisals they make of the work situation affect their reactions to it (Locke, 1976). Positive attitudes toward the work situation should result in job satisfaction and negative attitudes, job dissatisfaction.

### *History of Athletic Training*

Athletic training as we know it today was established during the early nineteenth century as a result of the development of intercollegiate and interscholastic athletics in the United States. Arnheim and Prentice (2000) defined athletic training as “the field that is concerned with all aspects of the athlete’s health and safety” (p. 3). Athletic trainers first appeared after World War I in intercollegiate athletics (Arnheim & Prentice, 2000; Hillman, 2005). During this time their roles included specialization in prevention and management of injuries. Dr. S. E. Bilik, a physician who authored the book, *The Trainer’s Bible* (1917), provided the first text on athletic training and the care of athletic injuries. Athletic training has evolved over the years to play a major role in the health care of the physically active in general and the athlete in specific (Arnheim & Prentice, 2000).

In the early 1920s members of the Cramer family were instrumental in developing products for use in the athletic training profession. They played a prominent role in the origin of the athletic training profession, along with the education of athletic training

students (Arnheim & Prentice, 2000; Hillman, 2005). The Cramer family began publication of the *First Aider* in 1932, which opened the lines of communication between coaches, trainers, and athletes.

During the late 1930s college and university athletic trainers tried to establish a national organization named the National Athletic Trainers' Association (NATA) (Arnheim & Prentice, 2000; Hillman, 2005). However, this venture struggled to exist because of World War II. The NATA did not become a recognized organization until 1950.

Between 1947 and 1950, athletic trainers from the university and collegiate settings reorganized to establish regional conferences which would later become district organizations within the NATA (Arnheim & Prentice, 2000; Hillman, 2005). The National Athletic Trainers' Association was officially formed in 1950 in Kansas City, Missouri, when 101 athletic trainers from the various conferences came together for the first annual meeting (Arnheim & Prentice, 2000; Hillman, 2005). The primary purpose for the formation of the National Athletic Trainers' Association (NATA) was to establish professional standards for the athletic trainers (O'Shea, 1980).

### *The Athletic Trainer*

Of all the professionals charged with injury prevention and health care provision for the athlete, perhaps none is more intimately involved than the athletic trainer (Prentice, 1991). The athletic trainer works with the athlete throughout the period of rehabilitation, from the time of the initial injury until the athlete's complete, unrestricted return to practice or competition (Prentice, 1991). Therefore, the athletic trainer becomes

more than just the person rehabilitating the athlete; he or she assumes many other roles including educator, counselor, and friend (Arnheim & Prentice, 1993; Furney, 1985; Geick, 1977; Prentice, 1991). A personal relationship is formed during the rehabilitative process between the athletic trainer and athlete (Arnheim & Prentice, 1993; Prentice, 1991).

The athletic trainer is most directly responsible for all phases of health care in an athletic environment, including preventing injuries, and designing and supervising a timely and effective program of rehabilitation that can facilitate the safe and expeditious return of the athlete to activity (Arnheim & Prentice, 2000; Hossler, 1983). The athletic trainer must be knowledgeable and competent in a variety of specialties encompassed under the umbrella of sports medicine if he or she is to be effective in preventing and treating injuries to the athlete (Cramer, 1990).

Success in athletic training is largely determined by the personal qualities of the athletic trainer. Personal qualities are the many characteristics that identify individuals in regard to their actions and reactions as members of society (Arnheim & Prentice, 2000). According to Arnheim and Prentice (2000), some essential personal qualities for the athletic trainer to possess include: (1) stamina and ability to adapt, (2) empathy, (3) sense of humor, (4) communication, (5) intellectual curiosity, and (6) ethical practice.

#### *Stamina and Ability to Adapt*

Stamina and the ability to adapt are critical personal qualities for athletic trainers to possess in order to resist burning out from the job (Arnheim & Prentice, 2000). Athletic trainers are susceptible to burnout because of the long hours and emotional



demands that accompany the profession. Some of the emotional demands associated with athletic training may include the number of athletes to care for, the expectations of coaches to return an injured athlete to action, difficulties in caring for chronic conditions, and personality conflicts with athletes, coaches, physicians, or administrators, along with the guilt of time spent away from family (Arnheim & Prentice, 2000).

### *Empathy*

Athletic trainers must be empathic to the needs of the athlete (Arnheim & Prentice, 2000). They must be able to identify when an athlete is troubled by stress and be able to help alleviate those stressful conditions. Empathy is helpful when trying to develop a personal relationship, or connection, with the athlete.

### *Sense of Humor*

Keeping a sense of humor is helpful when the athletic trainer is constantly faced with such stressful situations (Hossler, 1983). It helps keep the atmosphere relaxed and welcoming to the athlete. Many athletes rate having a sense of humor as the most important attribute that an athletic trainer can have (Arnheim & Prentice, 2000).

### *Communication*

Athletic trainers must possess good communicative skills (Arnheim & Prentice, 2000). Their jobs require constant communication among athletes, coaches, physicians, parents, and administrators. In many instances the athletic trainer is the liaison between the physician and the athlete, coach, or parent (Arnheim & Prentice, 2000; Hossler,

1983). It is imperative the athletic trainer is able to articulate the messages of the physician in a language the athletes, coaches, and parents will understand.

### *Intellectual Curiosity*

In the ever-changing world of medicine, the athletic trainer must be flexible and resilient to incorporate current literature into their health care practice (Arnheim & Prentice, 2000). Not only should he/she absorb this information, but also be able to decipher this information and use it in the education of others. The athletic trainer should not be complacent with what is working, but seek to find other ways of producing better results (Arnheim & Prentice, 2000).

### *Ethical Practice*

Finally, the athletic trainer must act at all times with the highest standards of conduct and integrity (Mangus & Ingersoll, 1990). According to the 1992 NATA Code of Ethics, the five basic ethics principles are as follows: (1) Members shall respect the rights, welfare, and dignity of all individuals, (2) Members shall comply with the laws and regulations governing the practice of athletic training, (3) Members shall accept the responsibility for the exercise of sound judgement, (4) Members shall maintain and promote high standards in the provision of services, and (5) Members shall not engage in conduct that constitutes a conflict of interest or that adversely reflects on the profession.

Not only must the athletic trainer assume great responsibilities and possess the knowledge and competence required for such tasks, he/she must be able to cope with the stresses and demands of the profession. Therefore, it is important to assess the levels of

job satisfaction for athletic trainers. Athletic trainers dissatisfied with their jobs may choose to change job settings, burnout, and/or leave the profession entirely.

### *Athletic Training Employment Settings*

Athletic trainers have the opportunity to work within many different settings. They include secondary schools, school districts, colleges and/or universities, professional teams, sports medicine clinics (i.e. doctor's offices, physical therapy clinics, hospitals, etc.), and/or industrial settings. Each offers unique challenges to the athletic trainer and excellent opportunities to impact the community. Each setting represents a subculture with underlying beliefs and values related to the culture of athletic training.

#### *Secondary Schools*

In an ideal world, every high school in the United States would employ an athletic trainer (Knight, 1988). The American Medical Association (1998) has stated that certified athletic trainers should be used as part of a high school's medical team. The American Academy of Family Physicians (AAFP) agrees and states on its web site, "The AAFP encourages high schools to have, whenever possible, a BOC certified or registered/licensed athletic trainer as an integral part of the high school athletic program." However, high schools may be one of the most under-served populations.

There are nearly 20 million youth athletes participating in non-scholastic organized sports in the United States (DuRant, Pendergrast, Donner, Seymore, & Gaillard, 1991). In addition, more than 6 million students participate in high school athletics (National Federation of State High School Associations, 1997). Accordingly, in

a 1993-94 NATA membership survey, only about 7600 United States high schools (35%) had some form of direct access to a certified athletic trainer. In June 1995, the NATA Secondary School Athletic Trainers' Committee released a position statement regarding secondary schools and athletic training. "It is the position of the National Athletic Trainers' Association that all secondary schools should provide the services of a full-time, on-site, certified athletic trainer to student athletes" (NATA, Committees, n.d., ¶1).

Athletic trainers employed by high schools may have teaching responsibilities in addition to their athletic training responsibilities (Hillman, 2005; Lephart & Metz, 1990; Prentice & Mischler, 1986; Prentice, 1991). Typically they are hired to teach and perform athletic training duties on an extra-curricula basis, in much the same way as high school coaches are supplemented for their coaching duties (Hillman, 2005; Lephart & Metz, 1990; Prentice & Mischler, 1986; Prentice, 1991). Positions vary from school to school and state to state. Some schools have athletic trainers supplied through college or university programs, sports medicine clinics, or hospitals through outreach programs (Hossler, 1985).

### *School Districts*

In an effort to save money, some athletic trainers are employed by a specific school district (Arnheim & Prentice, 2000). The disadvantage to this idea is the school district may have three or four schools with as many as 5-10 sports at each school within that district (Arnheim & Prentice, 2000). It is very difficult for one individual to provide the care necessary to accommodate the needs of every student-athlete at one school, let alone an entire school district.

### *Colleges/Universities*

From the 1950s until the 1980s the traditional setting for athletic trainers was in the college, university, or professional level athletic training rooms (Arnheim & Prentice, 2000; Prentice, 1991). Depending on the size of the college or university, the athletic trainer may have teaching responsibilities in addition to traditional duties in the athletic training room (Arnheim & Prentice, 2000; Prentice, 1991). Typically, larger colleges and universities hire the athletic trainer as a full-time employer without teaching requirements, and is usually paid by the university through the athletics department. Job positions in the college/university level include graduate assistants and interns, assistant athletic trainers, head athletic trainers, and/or directors of sports medicine, with the former being part-time staff members and the latter being full-time staff members (Arnheim & Prentice, 2000; Hillman, 2005).

### *Professional Level*

On the professional level, the athletic trainer is typically hired by the franchise in much the same way as the player is employed by the organization (Arnheim & Prentice, 2000; Hillman, 2005; Prentice, 1991). Generally, he/she is responsible for only one sport and his/her specific duties are determined by seasons (i.e. pre-season, in-season, off-season, etc.). Bonuses are determined by playoff and championship money.

### *Sports Medicine Clinics*

In the past, sports medicine clinics were considered the non-traditional field for athletic trainers (Arnheim & Prentice, 2000). However, these days more athletic trainers

are employed by sport medicine clinics than any other employment setting (Arnheim & Prentice, 2000). These position descriptions vary from clinic to clinic. Generally speaking, the athletic trainer has some clinical responsibilities in the morning hours and then his/her services may be contracted out to high schools or small colleges for coverage of practices and/or games in the afternoon or evening hours (Hillman, 2005; Prentice, 1991).

### *Industrial Settings*

Industrial settings are one of the newer employment opportunities for athletic trainers. Industries hire athletic trainers to work with the industrial athlete. Many of the injuries seen in this work force are similar to athletic-type injuries (Arnheim & Prentice, 2000). The injuries may be acute, for example, spraining an ankle by stepping off a platform, or chronic, such as lateral epicondylitis (irritation and inflammation of the lateral epicondyle, often referred to as tennis elbow) from repetitive stresses to the elbow. These injuries are seen in traditional athletics and the injuries themselves will be treated in much the same way. The athletic trainers in the industrial setting will prepare the industrial athlete to return to his/her job, just like the traditional athletic trainer will return the football player to football practice (Arnheim & Prentice, 2000). The industrial athletic trainer uses principles and concepts of workplace ergonomics to correct improper techniques of the industrial athlete. Additional responsibilities may include wellness programs, education and counseling to industrial athletes (Arnheim & Prentice, 2000).

This literature review was provided to demonstrate the relevance of the study variables (job satisfaction, work culture, and self-efficacy) and their rationale for

inclusion in the study. Additionally, some of the attributes critical to the successful performance of the duties of an athletic trainer and a subsequent high level of job satisfaction have been reviewed. All of the attributes are believed to be associated with the work culture and/or the personal self-efficacy of the athletic trainer and are therefore included in this literature review.

#### Statement of the Research Problem

Job satisfaction is an important issue for certified athletic trainers working in any setting. Previous studies in this area (Barrett, 1999; Bell, 1989; & Shapiro, 1987) primarily addressed demographic variables, academic programs, and job facet variables. No known study of this kind exists using self efficacy levels and perceptions of job culture as independent variables affecting job satisfaction. Furthermore, no conceptual framework exists that links athletic trainers' self efficacy, perceptions of job culture and job satisfaction levels. This study addresses this void in theory by developing and refining a conceptual framework linking these variables.

No quantitative measures of athletic training self-efficacy beliefs and perceptions of job culture are known to exist in their relation to job satisfaction. This study addresses this research problem through the creation and testing of quantitative measures of these constructs.

#### Purpose of the Study

The purpose of this study was to identify job satisfaction levels of certified athletic trainers based on their levels of self efficacy and their perceptions of their job

cultures. This study is the first known of its kind and is, therefore, exploratory in nature. Its purposes were to: develop a conceptual framework job satisfaction in trainers, work culture, and self-efficacy beliefs for athletic trainers; develop original measures of work culture and self-efficacy for athletic trainers; and examine linkages and interactions between the study variables using appropriate quantitative analyses.

### Significance of the Study

Few studies (Barrett, 1999; Bell, 1989; & Shapiro, 1987) have examined job satisfaction levels of athletic trainers and no research exists examining the influences of athletic trainer's self efficacy and job culture on levels of job satisfaction. This is the first known study identifying job satisfaction of athletic trainers from this theoretical perspective. Additionally, this study begins to build a nomological net (Cronbach & Meehl, 1955) among the study variables. The building of nomological networks is of particular importance given the absence of a comprehensive theory for how these variables may interact.

### Definition of Terms

Allopathy: "A system of medical practice that aims to combat disease by use of remedies producing effects different from or incompatible with those produced by the special disease treated" (Medline Plus Medical Dictionary, 2003).

Athletic Training: "Athletic training is that aspect of sports that is basically concerned with all aspects of the athlete's health and safety" (Arnheim & Prentice, 1993, p. 2).



Board of Certification: “The National Athletic Trainers' Association Board of Certification Inc. (BOC) has been responsible for the certification of athletic trainers since 1969. Upon its' inception, the BOC was an entity of the professional membership organization the National Athletic Trainers' Association (NATA). However, in 1989, the BOC became an independent non-profit corporation. The Mission of the Board of Certification is to certify athletic trainers and to identify for the public, quality healthcare professionals through a system of certification, adjudication, standards of practice and continuing competency programs. Accordingly the BOC provides a certification program for the entry-level athletic trainer and establishes requirements for maintaining status as a certified athletic trainer (ATC®)” (Board Of Certification, About Us, n.d.).

Certified Athletic Trainer (ATC): “Certified athletic trainers (ATCs) are unique health care providers who specialize in the prevention, assessment, treatment and rehabilitation of injuries and illnesses that occur to athletes and the physically active” (NATA, n.d., ¶ 1).

Lateral Epicondylitis (Tennis Elbow): “Inflammation of the muscular attachments of the long extensor muscles of the wrist and fingers at the lateral epicondyle of the humerus” (Arnheim & Prentice, 1993, p.761).

National Athletic Trainers' Association (NATA): Founded in 1950, this is a professional membership organization whose mission is “to enhance the quality of health care for athletes and those engaged in physical activity and to advance the profession of athletic training through education and research in prevention, evaluation, management, and rehabilitation of injuries” (NATA, Home, n.d.,¶ 1).

Osteopathy: “A system of medical practice based on a theory that diseases are due chiefly to loss of structural integrity which can be restored by manipulations of the parts supplemented by therapeutic measures (as use of medicine or surgery)” (Medline Plus Medical Dictionary, 2003).

## Study Variables

### *Conceptual/Operational Definitions*

A conceptual definition is given for each variable in this study followed by an operational definition.

### *Independent Variables*

#### *Self efficacy conceptual definition*

According to Bandura (1997), “perceived self efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Bandura’s social cognitive theory (1997) includes personal constructs along with behavior and environment in relation to learning. According to Bandura (1997), self efficacy beliefs:

influence the courses of action chosen, how much effort they will put forth in given situations, how long they will persevere in the face of difficulties and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with environmental demands, and the level of accomplishments they realize. (p. 3)

### *Self efficacy operational definition*

Self efficacy beliefs of certified athletic trainers were defined based on their perceptions of their abilities to complete specific tasks related to athletic training. These specific tasks fall with the six domains of athletic training: (1) prevention of athletic injuries, (2) recognition, evaluation, and assessment of injuries, (3) immediate care of injuries, (4) treatment, rehabilitation, and reconditioning of athletic injuries, (5) health care administration, and (6) professional development and responsibility. No specific measures of these forms of self efficacy beliefs are known to exist. Therefore, an original measure was developed for this study to address this specific need.

### *Culture conceptual definition*

In order to define what culture is within an organization, this study uses Schein's (1990) conceptual definition:

*Culture* can now be defined as (a) a pattern of basic assumptions, (b) invented, discovered, or developed by a given group, (c) as it learns to cope with its problems of external adaptation and internal integration, (d) that has worked well enough to be considered valid and, therefore (e) is to be taught to new members as the (f) correct way to perceive, think and feel in relation to those problems. (p. 111)

Schein's definition of culture reflects three important aspects to consider: socialization, behavior, and size of the group. In addition it gives two basic functions of culture: to solve problems of internal integration and of external adaptation. Learning the culture of

the organization goes beyond the surface aspects and must include the deeper layers of shared assumptions. Therefore, how the new members learn about organizational culture is important. Overt behaviors patterns are not included in the definition, and a specific size of the social unit is not provided. This allows for the possibility of subcultures.

According to Schneider (1987, p. 451), “the people make the place,” in that the people of an organization come to define the way it looks, feels, and behaves. The same can be asserted for the organization of athletic trainers. There exists a certain homogeneous nature among athletic trainers, almost like a camaraderie that we are all in this together.

#### *Culture operational definition*

The organizational culture of athletic trainers was defined based upon their perceptions of their organization. Organization referred to the program in which they worked (i.e., college/university, high school, clinic, professional team, industry, etc.). They were asked whether their organization valued or was committed to specific factors within their jobs. In addition, athletic trainers were asked whether their immediate supervisor (athletic directors, administrators, coaches, etc.) understood, valued or appreciated their work.. Finally, athletic trainers were asked about personal beliefs held within their specific organizations based upon athletic trainers’ levels of responsibility, control/authority, expectations, duties.

## *Dependent Variable*

### *Job satisfaction conceptual definition*

According to Locke (1976), job satisfaction is “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (p. 1300). Locke (1976) stated, “Job satisfaction results from the perception that one’s job fulfills or allows the fulfillment of one’s important job values, providing and to the degree that those values are congruent with one’s needs” (p. 1307).

### *Job satisfaction operational definition*

Operational definitions, according to Locke (1976), hold the concept that job satisfaction is defined by its measure, or the content within the instrument. Job satisfaction in athletic trainers is measured by asking an overall rating (1-10, 1 being low job satisfaction and 10 being high job satisfaction) of their satisfaction with their current job and by accessing factors of job satisfaction in athletic trainers.

## Research Questions

This study investigated the following research questions:

1. What is the level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers?
2. How do certified athletic trainers perceive their job culture as measured by the Job Culture Scale for Certified Athletic Trainers?
3. What is the job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers?

4. To what extent is there a relationship between job satisfaction and self efficacy beliefs of certified athletic trainers?
5. To what extent is there a relationship between job satisfaction and perceptions of job culture of certified athletic trainers?
6. To what extent is there a relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers?
7. To what extent does the combination of self efficacy beliefs and perceptions of job culture account for the level of job satisfaction among certified athletic trainers?

#### Limitations and Assumptions

##### *Limitations*

1. Certified Athletic Trainers (ATCs) were members of the National Athletic Trainers' Association (NATA) and were classified as working within the university/collegiate, high school, clinical, clinical/high school outreach, professional or industrial settings.
2. Responses may not be stable over time and therefore reflect how one felt at that moment in time.

##### *Assumptions*

1. The certified athletic trainers will understand the self-report instruments and their responses will be honest.

2. The certified athletic trainers responses to questions about self efficacy beliefs, perceptions of job culture and levels of job satisfaction reflect their actual self efficacy beliefs, perceptions of job culture and level of job satisfaction.
3. Self reported responses by ATCs were valid measures.
4. Respondents answered measures truthfully.

### Organization of the Study

Chapter I presents a brief overview of the literature relative to the components of the conceptual framework guiding this study. It provides a conceptual rationale for the linking of athletic trainer self-efficacy, and work culture, to job satisfaction and articulates how these three constructs are expected to operate in a triadic and reciprocal manner. Additionally, Chapter I presents the research hypotheses and questions which will be used to guide the study.

Chapter II follows and reviews related literature that supports the relevance and significance of this study. Chapter III discusses the methods and approaches used to collect data and the empirical evaluation of the data. Chapter IV reveals the results of the study description of the sample and analysis of research questions. Chapter V presents a discussion of the study findings, conclusions, and implications for higher education and research.

## CHAPTER II: REVIEW OF LITERATURE

### Introduction

The purpose of this study was to identify job satisfaction levels of certified athletic trainers based on their levels of self efficacy and their perceptions of their job cultures. The literature review provides the history of athletic training education and the roles of the athletic trainer. Literature was reviewed on the independent variables of culture and self efficacy, along with the dependent variable of job satisfaction (including motivation, goal theory and burnout).

The athletic trainer possessing a good sense of humor and the ability to communicate effectively with constituencies best serves his/her athletes (Hossler, 1983). In addition, he/she should be able to adapt to less than perfect situations and have the stamina to persist through a sometimes chaotic environment (Arnheim & Prentice, 2000). While keeping abreast of research and new technology to stimulate intellectual curiosity, the athletic trainer must ultimately be able to empathize with his/her athletes (Arnheim & Prentice, 2000). The bond between the athletic trainer and the athlete is very unique and all of these personal qualities are essential (Arnheim & Prentice, 2000). Finally, the athletic trainer must exhibit sound ethical practice.

### History of Athletic Training Education

As the profession of athletic training has changed over the last 50 years, so has athletic training education. After the NATA was established in 1950, athletic training education programs emerged largely in part of the efforts of William E. Newell at Purdue



University (Delforge & Behnke, 1999). Newell was responsible for appointing a Committee on Gaining Recognition, later to be known as the NATA Professional Education Committee (Newell, 1984). This committee oversaw athletic training education development for certified athletic trainers and approval of the continuing education units for nearly 30 years (Delforge & Behnke, 1999).

#### *Athletic Training Education-1950s*

In 1959 the first athletic training curriculum model was approved by the NATA (O'Shea, 1980; Schwank & Miller, 1971). The two most important features of the model, which were directly related to the employability of athletic trainers, were the emphasis on attainment of a secondary-level teaching credential (Schwank & Miller, 1971) and the inclusion of courses that represented prerequisites for acceptance to schools of physical therapy, as suggested by the American Physical Therapy Association (O'Shea, 1980; Schwank & Miller, 1971).

#### *Athletic Training Education-1960-70s*

It was not until 1969 that the first athletic training education programs were officially recognized by the NATA (Delforge & Behnke, 1999). The ten years prior represented a void in the implementation of athletic training education programs. In 1969 the Committee on Gaining Recognition, also known as the Professional Advancement Committee, was divided into two subcommittees, the Subcommittee on Professional

Education and the Subcommittee on Certification (Foster, 1995; Newell, 1984). Also in the late 1960s, graduate athletic training curriculums began to emerge, however, it was not until 1972 that they were approved by the NATA (Delforge & Behnke, 1999).

With the emergence of athletic training education programs during the 1960s, the NATA Certification Committee began the process of the development of a national certification exam. The first certification examination was administered in 1970 by the NATA Certification Committee (Newell, 1984; Westphalen & McLean, 1978).

#### *Athletic Training Education-1980-90s*

During the 1980s a NATA resolution requiring athletic training curriculum major, or equivalent was approved by the NATA Board of Directors (Delforge, 1982). In June 1990 athletic training was recognized as an allied health profession by the American Medical Association (National Athletic Trainers' Association, 1990). In October 1990 the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) was formed as a result of the American Academy of Family Physicians and the American Academy of Pediatrics joining the AMA and the NATA (Delforge & Behnke, 1999). Later in January 1995, the American Orthopaedic Society for Sports Medicine joined the JRC-AT as a new cosponsor (National Athletic Trainers' Association, 1995).

In 1994 the first entry-level athletic training educational programs were accredited by the AMA Committee on Allied Health Education and Accreditation (CAHEA), which would later be replaced by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) (Joint Review Committee on Educational Programs in Athletic Training, 1998). In June 1994 the NATA Education Task Force was

appointed. It was charged with reviewing all aspects of athletic training education (i.e., curriculum and internship programs), including undergraduate graduate, and continuing education (Delforge & Behnke, 1999).

### *Graduate Athletic Training Education*

In 1969, the National Athletic Trainers' Association (NATA) Professional Education Committee assisted and guided in the curriculum development and approval of undergraduate and graduate athletic training education programs in colleges and universities throughout the United States (Delforge & Behnke, 1999). In 1997, the Graduate Education Committee of the NATA Education Council was asked to evaluate and revise the graduate standards and guidelines (National Athletic Trainers' Association, 1997a). In 1998, the Graduate Review Committee was organized and deemed responsible for evaluating and recommending accreditation status of post-certification graduate athletic training education programs to the NATA Board of Directors (NATA Education Council-Graduate Education Committee, 2002).

General principles of graduate education should include mastery of subject matter, critical thinking, theoretical understanding, proficiency in research and/or creative activities, service orientation, and diverse representation of perspectives (NATA Education Council-Graduate Education Committee, 2002). The philosophy of graduate education programs is different from entry-level programs in purpose, design and content. Entry-level education programs are structured around a comprehensive list of athletic training educational competencies and clinical proficiencies designed to assist students in successful completion of the National Athletic Trainers' Association Board of

Certification (NATABOC) Exam, along with providing guidance and direction in the professional preparation of these students. The mission of post-certification graduate athletic training education programs is “to expand the depth and breadth of the applied, experiential, and propositional knowledge and skills of entry-level certified athletic trainers, expand the athletic training body of knowledge, and to disseminate new knowledge in the discipline.” (NATA Education Council Graduate Education Committee, 2002, p. 3)

The intention of graduate education programs is to offer instruction in advanced skills and knowledge, to prepare certified athletic trainers (ATCs) for leadership roles, and to offer research environments allowing for quality experiences (NATA Education Council-Graduate Education Committee, 2002). Essential components of these programs should include advanced educational experiences designed in enhancing the ATC’s ability to function in clinical, teaching, administrative, or research environments (NATA Education Council-Graduate Education Committee, 2002). The NATA Education Council requires minimum graduate course work and resource requirements; however, they strongly encourage flexibility and innovation in curricular development.

The NATA Education Council Graduate Education Committee (2002) suggests the curriculum reflect the individual program’s philosophy, mission, goals, and points of distinctiveness. Programs should utilize the expertise of faculty and institutional resources, while expanding upon and beyond NATA entry-level education. Clinical experience is optional, however, a hands-on research experience, along with the knowledge and skills necessary in completion, are required curricular components of

graduate athletic training education programs (NATA Education Council-Graduate Education Committee, 2002).

The mid 1990s brought about two related policy changes by the NATA Board of Directors and the NATA Board of Certification (NATABOC) affecting entry-level and graduate athletic training education (Delforge & Behnke, 1999). First, the NATA Professional Education Committee implemented a policy that NATA approval of graduate athletic training education programs would only be granted to programs offering “advanced” learning experiences beyond what was required by CAAHEP for entry-level programs (Delforge & Behnke, 1999, p. 59). Then, in June 1998, the NATABOC discontinued “completion of an NATA-approved graduate program” as a route to certification (Delforge & Behnke, 1999, p. 59).

#### *Undergraduate Athletic Training Education*

The second major policy change occurred in 1997 when the step toward standardization of education requirements for athletic trainers was initiated (McMullan, 1996, 1997; National Athletic Trainers’ Association, 1996; National Athletic Trainers’ Association, 1997a; & National Athletic Trainers’ Association Education Task Force, 1997). The NATA Board of Directors recommended the NATA and NATABOC work together to institute a requirement, to take effect in 2004, that, in order to be eligible for NATABOC certification, all candidates must possess a baccalaureate degree and have successfully completed a CAAHEP-accredited entry-level athletic training education program (McMullan, 1996, 1997; National Athletic Trainers’ Association, 1996; National Athletic Trainers’ Association, 1997a; & National Athletic Trainers’

Association Education Task Force, 1997). With the implementation of this policy in January 2004, the current internship route was discontinued. CAAHEP-accredited entry-level programs are now the only avenue to NATABOC certification (Delforge & Behnke, 1999). In 1997, with the development of the new *Standards and Guidelines for the Development and Implementation of NATA Accredited Graduate Athletic Training Education Programs*, NATA accreditation of graduate programs was implemented (National Athletic Trainers' Association, 1997b).

In 1999 the National Athletic Trainers' Association Board of Certification (NATABOC) completed role delineation studies and formed the 3<sup>rd</sup> Edition of Athletic Training Education Competencies (National Athletic Trainers' Association, 1999). These competencies reflected the information needed to be grasped by entry-level athletic trainers. In June 2000, the NATA developed and conducted Clinical Instructor Educator (CIE) seminars in an effort to equip program directors or clinical-education coordinators with information and resources to serve CIE at their institutions (National Athletic Trainers' Association, Education, n.d.). CIE seminars provide training for Approved Clinical Instructors (ACIs) to effectively teach and evaluate athletic training proficiencies of athletic training students (National Athletic Trainers' Association, Education, n.d.). CIEs and ACIs are needed in order to supervise athletic training students in various settings beyond classroom instruction.

As of March 2004, there were currently 245 CAAHEP-accredited undergraduate curriculums, 13 CAAHEP-accredited graduate programs, and 14 NATA approved graduate curriculums in the United States (National Athletic Trainers' Association, n.d.).

This provides future athletic training students a wide range of possibilities for degree attainment and national certification exam eligibility.

### Roles of the Athletic Trainer

The specific roles and responsibilities of the athletic trainer differ and to a certain extent are defined by the situation in which he or she works (National Athletic Trainers' Association Board of Certification, 1994). In 1999 the NATA Board of Certification (NATABOC) completed the latest role delineation study, which redefined the profession of athletic training. This study examined the primary tasks performed by athletic trainers and the knowledge and skills needed to perform these tasks. The panel divided these domains into six major areas: (1) prevention of athletic injuries, (2) recognition, evaluation, and assessment of injuries, (3) immediate care of injuries, (4) treatment, rehabilitation, and reconditioning of athletic injuries, (5) health care administration, and (6) professional development and responsibility.

### *Prevention of Athletic Injuries*

One of the most important aspects of athletic training is the prevention of injuries and risk management (Arnheim & Prentice, 2000). Athletic trainers can reduce the risk of injuries by ensuring the playing environment is safe. A common phrase often heard in athletic training is, "an ounce of prevention is worth a pound of care." The athletic trainer can minimize the risk of injuries by (1) ensuring appropriate training and conditioning of the athlete, (2) monitoring environmental conditions to ensure safe participation, (3) selecting, properly fitting, and maintaining protective equipment, (4) making sure that the

athlete is eating properly, and (5) making sure the athlete is using medications appropriately while discouraging substance abuse (Arnheim & Prentice, 2000).

### *Recognition, Evaluation, and Assessment of Athletic Injuries*

In order to adequately recognize, evaluate and assess athletic injuries, the athletic trainer must have a baseline of the athlete's conditions. This baseline is determined by (1) conducting physical exams, (2) understanding the pathology of injury and illness, (3) knowing when to refer to medical care, and (4) knowing when to refer to support services (Arnheim & Prentice, 2000). Conducting a medical history along with a pre-participation physical exam provides the athletic trainer with any existing or potential conditions of athletes.

### *Immediate Care of Injuries and Illnesses*

Athletic trainers are often the first persons to respond to the injured or ill athlete (Arnheim & Prentice, 2000). They are responsible for the initial on-field assessments. Basic first aid skills are utilized and management of acute injuries are decided immediately. Emergency plans and procedures are established long before the athlete steps onto the playing field to ensure proper medical care for any given situation (Anderson, Courson, Kleiner, & McLodas, 2002; Arnheim & Prentice, 2000).

### *Treatment, Rehabilitation, and Reconditioning of Athletic Injuries*

Once the physician diagnoses the athlete's injury, the athletic trainer is responsible for treating, rehabilitating and reconditioning the athlete. Athletic trainers accomplish these tasks by designing protocols for the rehabilitation of specific injuries



(including keeping the athlete conditioned for his/her sport), supervising the rehabilitation process, incorporating therapeutic modalities, and offering psycho-social intervention when needed (Arnheim & Prentice, 2000).

### *Organization and Administration*

The athletic trainer is responsible for the organization and administration of the training room facility, including the management of health and injury records for each athlete, requisition and inventory of necessary supplies and equipment, the supervision of assistant or student trainers, and the establishment of policies and procedures for day-to-day operation of the athletic training program (Rankin & Ingersoll, 1995; Ray, 1994; Winterstein, 1998).

### *Professional Development and Responsibilities*

It is the personal responsibility of athletic trainers to continue education on up-to-date techniques and policies within the profession (Arnheim & Prentice, 2000). NATABOC requires reporting of continuing education units every three years. Within that time span the athletic trainer must obtain 80 contact hours (CEUs), including yearly CPR re-certification (Board Of Certification, n.d.). Continuing education is necessary so that athletic trainers educate themselves as well as students, athletes, coaches parents, various allied health professions, and the general public about the profession of athletic training (Arnheim & Prentice, 2000).

Not only does the athletic trainer serve as an educator, but also, assumes the role of a counselor. The athletic trainer should be concerned primarily with counseling and

advising the athlete not only with regard to prevention, rehabilitation, and treatment of specific injuries but on any matter that might be of help to the athlete (Misasi, Davis, & Morin, 1996; Moulton, Molstand, & Turner, 1997).

### Job Satisfaction

Job satisfaction has been researched by industrial and organizational psychologists (Hoppock, 1935; Locke, 1976; Lofquist & Dawis, 1969; Porter, Lawler, & Hackman, 1975; Schultz & Schultz, 1990; Smith, Kendal & Hulin, 1969; Vroom, 1964; and Weiss, Davis, Lofquist & England, 1966) for almost a century, dating back to the preliminary Hawthorne studies on job satisfaction in the 1920s by Mayo and colleagues. In their study of *attitudes*, they *discovered* what Taylor had observed in 1912. Taylor suggested workers have minds and that the appraisals they make of the work situation affect their reactions to it (Locke, 1976). Attitudes not only related to job satisfaction, but also included employee's view of management, economic situations at the time, their hypotheses about the purpose of the studies and their moods (Locke, 1976).

Hoppock (1935) published the first intensive study on job satisfaction which included the results and interpretations that emphasized the multiplicity of facts that could affect job satisfaction. This study included variables not studied before, such as fatigue, monotony, working conditions and supervision.

#### *Definitions of Job Satisfaction*

Because satisfaction is an emotional response, Locke (1976) indicated it should be defined based on epistemological roots, meaning it can only be grasped by the process

of introspection--an act of conceptual identification directed to one's mental contents and processes. According to Locke (1976), job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1300). Locke (1976) stated, "Job satisfaction results from the perception that one's job fulfills or allows the fulfillment of one's important job values, providing and to the degree that those values are congruent with one's needs" (p. 1307). He concludes by recognizing the most important values or conditions conducive to job satisfaction which were:

1. mentally challenging work with which the individual can cope successfully;
2. personal interest in the work itself;
3. work which is not too physically tiring;
4. rewards for performance which are just, informative, and inline with the individual's personal aspirations;
5. working conditions which are compatible with the individual's physical needs and which facilitate the accomplishment of his work goals;
6. high self-esteem on the part of the employee; and
7. agents in the work place who help the employee to attain job values such as interesting work, pay, and promotions, whose basic values are similar to his own, and who minimize role conflict and ambiguity. (Locke 1976, p. 1328)

Vroom (1964) used job satisfaction and job attitudes interchangeably and asserted it refers to affective orientations on the part of the individuals toward work roles they presently occupy. Basically, positive attitudes would result in job satisfaction and negative attitudes, job dissatisfaction. Smith, Kendal & Hulin (1969) believed job satisfaction to be a positive attitude toward one's work. Lofquist & Dawis (1969) defined satisfaction as "a function of the correspondence between the reinforcer system of the work environment and the individual's needs" (p. 53). Porter, Lawler, and Hackman (1975) described it as a feeling about a job that "is determined by the difference between the amount of some valued outcome that a person receives and the amount of the outcome he feels he *should* receive" (p. 53). Schultz & Schultz (1990) defined job satisfaction as "a set of attitudes that employees have about their job" (p. 334). More recently, Spector (2000) defined job satisfaction as "an attitudinal variable that reflects how people feel about their jobs overall as well as various aspects of them" (p. 197).

Previous research on job satisfaction in athletic trainers (Barrett, 1999; Bell, 1989; & Shapiro, 1987) used some of these conceptual definitions. Operational definitions, according to Locke (1976), hold the concept that job satisfaction is defined by its measure, or the content within the instrument. That instrument is defended by it measuring exactly what the investigator intended it to measure. Hence, the importance of the validation of these measures.

Some researchers (Locke, 1976; Schultz & Schultz, 1990; Vroom, 1964) alluded to attitudes when describing or defining job satisfaction. This implies defining job satisfaction is the result of some personal affects of the employee. There is debate

(Locke, 1976; Schultz & Schultz, 1990; Vroom, 1964) as to whether attitudes influence behavior or behavior influences attitudes. This issue will be addressed after reviewing literature on social cognitive theory.

### *Factors/Facets of Job Satisfaction*

As well as referring to attitudes, these researchers (Locke, 1976; Schultz & Schultz, 1990; Vroom, 1964) also implied job satisfaction has factors or facets contributing to the overall satisfaction of the employee. Employees may be overall satisfied with their jobs, but only be dissatisfied with certain aspects. Locke (1976) referred to several job dimensions including: work, pay, promotions, recognition, benefits, working conditions, supervision, co-workers and company and management. Vroom (1962) listed these determinants of job satisfaction: supervision, work group, job content, wages, promotional opportunities and hours of work. Weiss, Davis, Lofquist & England (1966) included twenty facets of job satisfaction in their Minnesota Satisfaction Questionnaire (MSQ). Smith et al. (1969) described five job facets in their Job Description Index (JDI): work, pay, promotion opportunities, supervision and co-workers. Finally, Spector (1985) listed these as common job facets in his Job Satisfaction Survey (JSS): pay, promotional opportunities, fringe benefits, supervision, co-workers, job conditions, nature of the work itself, communication and security.

### *Measures of Job Satisfaction*

Researchers identifying job satisfaction in athletic trainers (Barrett, 1999; Bell, 1989; & Shapiro, 1987) used the Job Description Index (JDI) (Smith et. al, 1969) and the Job Satisfaction Survey (JSS) (Spector, 1985) or a modification of the JDI as

measurements of job satisfaction. Again, considerations must be noted as to the operational definitions of job satisfaction since the measures utilized ultimately define what is job satisfaction according to the content of the instruments.

The Job Description Index (Smith et. al, 1969) is a popular measure of job satisfaction. The instrument identifies work, pay, promotion opportunities, supervision and co-workers as the five facets involved in job satisfaction. This scale has been used extensively in the body of research. The only criticism was that it only included five facets and may not be applicable to all employee groups. Since then the scale has been updated and revised. A sixth facet has been included to measure general overall satisfaction.

Spector (1985) developed the Job Satisfaction Survey (JSS), which assesses nine job satisfaction facets. They include pay, promotion, working conditions, communication, fringe benefits, co-workers, supervision and nature of work. Results from nearly twenty-five thousand employees throughout the United States within different organizations reported being very satisfied with their supervisors, co-workers, and the nature of the work they do. However, they were less satisfied with pay, promotion opportunities, and fringe benefits. The results of the JSS were consistent with the 1997 Gallup Organization poll results (Gallup Poll, 1997). This organization conducts a poll every few years to assess how Americans feel about their jobs.

Another job satisfaction scale, but not used in previous athletic training job satisfaction studies, is the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Davis, Lofquist & England, 1966). It has a long version with 100 items and a short version

covering 20 items. The MSQ identifies twenty job facets including: activity, independence, variety, social status, supervision (human relations), supervision (technical), moral values, security, social service, authority, ability utilization, company policies and practices, compensation, advancement, responsibility, creativity, working conditions, co-workers, recognition and achievement. These facets are combined and determined whether they contribute to intrinsic satisfaction or extrinsic satisfaction. Intrinsic satisfaction considers the nature of the job tasks themselves and how people feel about the work they do. Extrinsic satisfaction refers to other aspects of the work situation, such as fringe benefits and pay.

### *Theories of Job Satisfaction*

Locke (1976) referred to the needs value conflict as causal models of job satisfaction through the use of process and content theories. Process theories, according to Campbell, Dunnette, Lawler, & Weick (1970), attempt to identify specific needs or values most conducive to job satisfaction. Locke (1976) defined content theories as the attempt to specify the particular needs satisfied or the values attained for an individual to be satisfied with his job. The two most noted theories that Locke referred to were Maslow's (1954) Need Hierarchy Theory and Motivator-Hygiene Theory (Herzberg, Mausner, & Snyderman, 1959).

Maslow's (1954) Need Hierarchy Theory is based on five categories of needs by individuals: physiological (food, water, air, etc.); safety (free from harm); belongingness; love; esteem (mastery & achievement and recognition & approval of others); and self actualization. Self actualization is defined as "the tendency...to become actualized in

what he is potentially” or “the desire to become more and more what one is, to become everything that one is capable of becoming” (Maslow, 1954, p. 91). Needs are arranged in a hierarchy from the most prepotent to least. However, this does not take into account what the individual values most. The value of hierarchy may not allow for physical needs to be put first in some cases.

Motivator-Hygiene Theory (Herzberg, Mausner, & Snyderman, 1959) may also be known as the two factor theory. The two factors involved are *motivators* and *hygienes*. Motivators are classified as the work itself, achievement, promotion, recognition, and responsibility. Hygiene factors include supervision, interpersonal relations, working conditions, company policies and salary. The theory argues job satisfaction depends upon *motivators* and job dissatisfaction is the result of *hygiene* factors. Herzberg (1966) later explained his theory in the view of the nature of man as having two separate needs: physical needs and psychological needs.

Locke (1976) felt neither Maslow’s Need Hierarchy Theory (1954) nor Motivator-Hygiene Theory (Herzberg, Mausner, & Snyderman, 1959) provided an adequate specification of the particular job conditions conducive to job satisfaction. However, he did note Herzberg’s theory provided a useful distinction between the mind and body, the duality of physical and psychological needs. Herzberg’s theory also identified cognitive growth as a major psychological need that is fulfilled through work.

### Motivation

People’s self-beliefs of efficacy also determine their level of motivation, which is reflected in how much effort they will exert and how long they will persevere (Wood &



Bandura, 1996). The stronger the belief in their capabilities, the greater and more persistent are their efforts (Bandura, 1997).

Social cognitive theory also emphasizes human capacities for self-direction and self-motivation (Bandura, 1997). According to the social cognitive theory, most human motivation is cognitively generated, meaning it is intrinsic. People seek self-satisfaction from fulfilling valued goals, and they are motivated by discontent with substandard performances (Wood & Bandura, 1996). People intrinsically want to succeed, and when they fail they are not happy with that behavior and want to improve. These people possess high self efficacy. Efficacy beliefs play a central role in the cognitive regulation of motivation (Bandura, 1997; Wood & Bandura, 1996).

Theories on motivational processes include: 1) attributional theory, 2) expectancy-value theory, and 3) goal theory. These theories distinguish three respective cognitive motivators: 1) causal attributions, 2) outcome expectancies, and 3) cognized goals. Cognized goals and outcome expectancies require forethought, while causal attributions rely on retrospective reasoning, before performance occurs.

#### *Attributional Theory*

According to the attributional theory of motivation (Weiner, 1985), retrospective judgements of the causes of one's performances have motivational effects. This theory works best if individuals believe they can do the task at hand. If they are not successful, they believe it is because they did not try hard enough. These types of individuals, adhering to attributional theory characteristics, will undertake difficult tasks and persist

when they fail. They believe they have the abilities and they put forth the efforts required in order to accomplish the tasks.

The problem with this theory is if the individual does not believe he can accomplish the task because he lacks the ability, then he will probably not put forth as much effort and become easily discouraged (Bandura, 1997). Individuals may believe that ability is a skill which can be acquired and developed through effort. Attributional theory is also only concerned with enactive mastery experiences. It does not take into consideration modeling, verbal persuasion, or physical arousal. If the individual does not have successful completion of tasks, he does not have these other sources of self efficacy contributing to the attributional theory (Bandura, 1997).

Causal attributions, whether ability, effort or task difficulty, have a weak effect upon performance motivation. Perceived self-efficacy mediates the effect of causal attributions on performance across such diverse activities as academic performance (Reliech et al., 1986; Schunk & Gunn, 1986) and occupational burnout (Chwalisz, Altmaier, & Russell, 1992). An individual's belief is a better predictor of performance in attributional theory literature.

### *Expectancy-Value Theory*

The expectancy-value theory predicts that the higher the expectancy that certain behavior will cause an outcome that is valued, the greater the motivation (Bandura, 1997). Actions produce outcomes in expectancy-value theory. With this theory it is difficult to rate a person's self-evaluation of the worth of an outcome. What seems great to one person may be less than desirable to another. People act on their beliefs about

what they can do as well as their beliefs about the likely effects of various actions (Bandura, 1997). Those subscribing to the expectancy-value theory believe something is important and they have the ability to do it.

Individuals' beliefs have a major impact on their outcome expectancies. High self efficacy and high outcome expectancy contribute to productive engagement; however, low self efficacy and low outcome expectancy leads to resignation and apathy. High self efficacy and low outcome expectancy reveals grievance and protest, leaving the individual asking the question, "Why do I have to do this?" Low self efficacy and high outcome expectancy results in despondency and self-devaluation, creating high levels of stress. Efficacy beliefs contribute to performance, where as generalized effort expectancy does not (Bandura, 1997).

Athletic trainers are often subject to extremely high outcome expectancies with regard to athletes imposed by different sources (i.e., coaches, parents, & administrators.). There may be extreme pressures by coaches on athletic trainers to get athletes back onto the playing field. Even though the athletic trainer may feel confident in his/her abilities to treat the injuries, the high outcome expectancy of having the player on the field can create high levels of stress for the athletic trainer who realizes that athlete is not ready to compete.

According to the theory of reasoned action by Ajzen and Fishbein (1980), perceived behavioral control is defined and measured in the terms of how easy or difficult a person believes the behavior is. Perceived difficulty involves perceived capability to fulfill task demands. The less efficacious a person judges himself, the more

likely the task will appear difficult to them (Dzewaltowski et al., 1990; Ajzen & Fishbein, 1980).

Bandura (1997) noted that “barring insurmountable environmental constraints, highly self-efficacious individuals may view certain undertakings as inherently difficult but believe firmly that they can succeed through ingenuity and perseverant effort. This is precisely what characterizes notable achievers, innovators, and social reformers” (p. 127). Highly efficacious individuals are creative in problem solving and persevere through setbacks. These individuals ideally represent an effective organizational culture as they are easily motivated and successful in endeavors (Bandura, 1997).

#### Goal Theory

Goal theory suggests that behavior is motivated and directed by cognized goals rather than being pulled along by an unrealized future state (Bandura, 1997). Cognitive factors, especially feedback and expectancy/self efficacy and, to an increasing degree, task strategies, play a major role in the theory (Locke & Latham, 1996). Cognitive factors play a role in explaining both the choice of action and its degree of success (Locke & Latham, 1996). People base goals on their beliefs of what they can achieve, recollections of past performances, beliefs regarding consequences, and value of a situation (Locke & Latham, 1996). The value of specified goals depends on the individual’s motives, what he considers desirable or beneficial, and what he seeks to gain (Locke & Latham, 1996). Finally, cognition is relevant to the needs of the individual and how he satisfies his needs (Bandura, 1997).

## *Goals*

Self-set goals are more meaningful and motivation is enhanced if they are challenging. In studies of the regulative function of goals differing in specificity, clear, attainable goals produce higher levels of performance than general intentions to do one's best, which usually have little or no effect (Bandura & Cervone, 1983; Locke & Latham, 1996). Specific performance goals serve to motivate the unmotivated and to foster positive attitudes toward the activities (Bryan & Locke, 1967).

Goals operate through self-reactive influences as opposed to regulating motivation and action directly (Bandura, 1997). Self-satisfaction makes people intensify their efforts. Self-evaluation requires a personal standard and knowledge of one's performance level. Combined influence of goals with knowledge of performance increases motivation.

Goals provide standards in which people are able to measure their performances. Goals provide a sense of purpose and direction, while raising and sustaining the level of effort needed in attaining them (Bandura, 1997). Previous researchers (Latham & Lee, 1986; Locke, Shaw, Saair, and Latham, 1981; Mento, Steel, & Karren, 1987; Wood & Bandura, 1996) investigated various domains of functioning under both laboratory and naturalistic conditions which provided substantial converging evidence indicating that explicit, challenging goals enhance and sustain people's motivation. Goals motivate individuals. Not only do they motivate individuals, but also guide them and help build beliefs in their capabilities.

## *Goals and Motivation*

Motivation is best regulated by long-range goals that set the course for one's endeavors combined with a series of attainable subgoals that guide and sustain the efforts along the way (Bandura & Schunk, 1981; Bandura & Simon, 1977; Morgan, 1985). Subgoals help individuals evaluate their capabilities along the way. Short-term, or proximal goals, raise one's effort and direct what one does during the short run (Wood & Bandura, 1996). Subgoals help break down distal goals or complex tasks into manageable tasks. This keeps it challenging, but does not overwhelm the individual by focusing only on the distant outcome. Distal goals are too far removed in time to be effective self-motivators (Wood & Bandura, 1996).

Cognitive motivation based on goals or standards is mediated by three types of self-influences (Bandura, 1997). They include affective self-evaluative reactions to one's performance (how well you think you did), perceived self efficacy for goal attainment (how well can I do), and adjustment of personal standards in light of one's attainments (how does this relate to what I want to do).

Self-satisfaction gained from fulfilling valued standards provides one source of incentive motivation for personal accomplishments (Bandura, 1997). Both the positive and negative affective self-motivators contribute to motivation. The individual does not want to have only discontent because eventually it will discourage his self-motivation.

An individual's perceived efficacy beliefs contribute to motivation in several ways, including goal attainment. Based upon beliefs of self efficacy, people choose what

challenges to undertake, how much effort to expend and how long to persevere through difficulties (Bandura, 1997).

The readjustment of personal goals in light of progress being made represents the third constituent of self influence in the ongoing regulation of motivation (Bandura, 1997). Feedback on progress is critical. Once a goal is attained, an individual must re-evaluate himself and his goals. How does it relate to what he wants to do? In answering this question, the individual should set new goals to serve as further motivators.

These theories can be implemented in the work setting. Beliefs should be considered when motivating others. Beliefs must be changed in order for behavioral changes to occur and self efficacy is directly linked to motivation. Being able to identify an individual's beliefs, whether high or low, and the outcome expectancies, determines what techniques will be successful in motivating them.

#### Burnout

Because self efficacy is linked to motivation, it is understandable that perceived self efficacy is needed in fulfilling the occupational demands in athletic training. These occupational demands (i.e., six domains of athletic training) can be the causes of stress when there are high outcome expectancies. Athletic trainers are subject to these high outcome expectancies, particularly because they deal with people going through stressful times as a result of their injuries. These, along with other variables, can lead to the syndrome described by Maslach (1982) as *burnout*.

Burnout is defined as depersonalization, emotional exhaustion, and a lack of any sense of personal accomplishment (Maslach, 1982). Depersonalization, for the athletic trainer, refers to a loss of concern for the athletes being treated. The athletic trainer may become impersonal in his/her relationships, or experience a lack of relationships with the athletes. Emotional exhaustion reflects the emotional and physical strains experienced by the athletic trainer. He/she may become unmotivated (emotional) and physically worn out. Decreased personal accomplishment is directly affected by self efficacy since skilled competency, needed for succeeding at the tasks at hand, is now questionable. Personal achievement also refers to the physiological states (physical arousal) of self efficacy. These three factors can affect people in occupations with increasing workloads, especially if they view what they are doing as not valued or of no help (Bandura, 1997).

Perceived self efficacy is one factor that predicts how one will adapt or cope with emotionally taxing work. In 1992, Chwalisz, Altmaier, and Russell looked at the pattern of relationships of teachers with regard to causal attributions and perceived efficacy. They studied the teachers' coping styles and different types of burnout reactions. It was noted that perceived occupational inefficacy is a central mediator of burnout. The teachers with high self efficacy used coping strategies which were beneficial to their work (Chwalisz, Altmaier, & Russell, 1992). Those with lower beliefs in their abilities to change the stressful conditions of their jobs resorted to dysfunctional coping styles for stress relief (Chwalisz, Altmaier, & Russell, 1992). These discoveries may be applicable to other occupations and professions closely related to the educator such as athletic training.



## Culture

Culture has traditionally been studied by anthropologists observing customs, rituals, shared beliefs, norms, and values. However, over the last few decades, industrial and organizational psychologists (Aycan, 2000; Hoy, 1990; Lawson & Ventriss, 1992; Owens, 1991; Pool, 2000; Schein, 1986, 1990, 1992; van Muijen, 1998) have studied this concept with respect to the role it plays within the organization and its influences upon the leaders of these organizations. The culture of an organization defines the organization and can be instrumental in its success or failure (Schein, 1992). Industrial and organizational psychologists studying organizational cultures (Aycan, 2000; Hoy, 1990; Lawson & Ventriss, 1992; Owens, 1991; Pool, 2000; Schein, 1986, 1990, 1992; van Muijen, 1998) are able to develop an understanding and appreciation of it, therefore lead to suggestions for changing and/or improving organizational culture.

### *Culture vs Climate*

Both organizational culture and organizational climate are terms that have been used in describing school effectiveness. Halpin and Croft (1963) studied the organizational climates of schools before the concept of organizational cultures was known. Organizational climate was defined as the perceptions of people in that organization and Halpin and Croft (1963) sought to obtain an objective description of those perceptions through the Organizational Climate Description Questionnaire (OCDQ).

Tagiuri (1968) suggested organizational climate referred to the characteristic of the total environment in an organization comprised of the *ecology* (physical and material

factors), the *milieu* (social dimension), the *social system* (organizational and administrative structure) and the *culture* (values, belief systems, norms and ways of thinking of the people in the organization). Hoy (1990) defined the organizational climate of a school as “the relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perceptions of behavior in schools” (p. 152). Organizational climate is “the study of *perceptions* that individuals have of various aspects of the environment in the organization” (Owens, 1991, p. 175). Owens (1991) later suggested that climate likely reflects the culture of the organization.

Schein (1992) referred to climate as “the feeling that is conveyed in a group by the physical layout and the way in which members of the organization interact with each other, with customers, or with outsiders” (p. 9). Schein (1990) previously noted:

Climate is only a surface manifestation of culture, and thus research on climate has not been able to delve into the deeper causal aspects of how organizations function. We need explanations for variations in climate and norms, and it is this need that ultimately drives us to “deeper” concepts such as culture. (p. 109)

This leads to the review of the literature on culture and the definition used in this study.

### *Definitions of Culture*

There is no one accepted definition of culture or organizational culture.

Sackmann (1991) indicated there were “almost as many definitions and understandings of culture as there are people writing about it” (p. 2).

Schein (1986) views culture as a deep phenomenon which is manifested in a variety of behavior and focuses his definition of culture on the deeper cognitive layers. He wrote, “For our purposes it is enough to specify that any definable group with a shared history can have a culture and that within an organization there can therefore be many subcultures” (Schein, 1990, p. 111). Schein (1990) concluded, “If the organization as a whole has had shared experiences, there will also be a total organizational culture” (p. 111). This leads to the given definition by Schein (1990):

*Culture* can now be defined as (a) a pattern of basic assumptions, (b) invented, discovered, or developed by a given group, (c) as it learns to cope with its problems of external adaptation and internal integration, (d) that has worked well enough to be considered valid and, therefore (e) is to be taught to new members as the (f) correct way to perceive, think and feel in relation to those problems. (p. 111)

Schein’s definition of culture reflects three important aspects: socialization, behavior, and size of the group. In addition it provides two basic functions of culture: to solve problems of internal integration and of external adaptation. Learning the culture of the organization goes beyond the surface aspects and must include the deeper layers of shared assumptions. Therefore, how the new members learn about organizational culture is important. Overt behaviors patterns are not included in the definition, and a specific size of the social unit is not provided which allows for the possibility of subcultures.

Other definitions of organizational culture include Schwartz and Davis’ (1981) definition of culture as “a pattern of beliefs and expectations shared by the organization’s

members, that produces norms that powerfully shape the behavior of individuals or groups in organizations” (p. 33). Ouchi (1981) considered organizational culture as “systems, ceremonies, and myths that communicate the underlying values and beliefs of the organization to its employees” (p. 41). Mintzberg (1983) simply stated culture is “a system of beliefs about the organization, shared by its members, that distinguishes it from other organizations” (p. 152). Finally, Owens (1991) defined organizational culture as:

The *norms* that inform people what is acceptable and what is not, the dominant *values* that the organization cherishes above others, the *basic assumptions and beliefs* that are shared by members of the organization, the “*rules*” of the game that must be observed if one is to get along and be accepted as a member, the *philosophy* that guides the organization in dealing with its employees and its clients. It is developed over time by the people within the organization working together. (p. 28)

### *Levels of Culture*

Schein (1992) offers different levels at which culture can be analyzed. He defined the term *level* as “the degree to which the cultural phenomenon is visible to the observer” (p. 16). The three levels are artifacts, espoused values and basic assumptions.

Artifacts are the visible organizational structures and processes. They are easily observed, yet difficult to decipher. “Only after we have discovered the deeper layers that I am defining as the essence of culture can we specify what is and what is not an ‘artifact’ that reflects culture” (Schein, 1992, p. 14). Espoused values are the strategies, goals, and philosophies. These values should be based on prior cultural learning and what people

*say* should reflect what they *do*. Finally, the basic underlying assumptions are the unconscious, taken-for-granted beliefs, perceptions, thoughts, and feelings (Schein, 1992). Schein (1992) preferred the basic assumptions because “these tend to be taken for granted and are treated as nonnegotiable” (p. 16). He further stated, “Basic assumptions are so taken for granted that someone who does not hold them is viewed as crazy and automatically dismissed” (Schein, 1992, p. 16). Basic assumptions are difficult to change, yet guide behavior.

### *Culture and Leadership*

Culture is referred to a type of thought or behavior based on common values (Ichikawa, 1996). Certain cultures hold specific characteristics as favorable attributes. In athletic training, Arnheim & Prentice (2000) suggested the athletic trainer possess certain attributes such as stamina and the ability to adapt, empathy, sense of humor, communicative skills, intellectual curiosity, and sound ethical practice. Head athletic trainers and directors of sports medicine are considered leaders within their subculture, or employment setting (Hillman, 2005). Certainly these attributes are desirable; however, it is important to keep in mind the context at hand since specific situations lean more favorably toward distinct attributes (Arnheim & Prentice, 2000).

According to Schneider (1997), “the people make the place,” in that the people of an organization come to define the way it looks, feels, and behaves. The same holds true for the organization of athletic trainers. There exists a certain homogeneous nature among athletic trainers, almost like a comradery that we are all in this together. Rankin

and Ingersoll (2001) referred to the nature of athletic training as “one of caring about and serving the athlete” (p. 81).

Schneider (1997) believed the attributes of people, not the nature of the external environment, or organizational technology, or organizational structure, are the fundamental determinants of organizational behavior. The external environment cannot mandate what matters or impose structure to an organization (Fullan, 1993). In order for it have some meaning or be effective it must be internalized, meaning change must come from the people within the organization. Fullan’s (1993) findings are based on theories and findings from different areas of psychology, including personality theory, vocational psychology, and I/O (Industrial and Organizational) psychology, along with organizational theory. Schein (1990) stated, “Culture is what a group learns over a period of time as that group solves its problems of survival in an external environment and its problems of internal integration” (p. 111).

The Attraction-Selection-Attrition (ASA) framework (Schneider, 1987) is proposed as an alternative model for understanding organizations, technology, and structure, and the larger environment of organizations are outcomes of, not the causes of, people’s behavior. Schneider (1987) proposed people are not randomly assigned to organizations; however, the setting is determined by the people, who are attracted to, selected by, and remain in that setting. Therefore, organizations are perceived in a specific way because of the people within it. Organizations can contribute to the behaviors of the people involved, just as the attributes of the people within that organization could contribute to the behavior of the organization (Schneider, 1987).

There would be a bi-directional relationship existing between the two as each would have some influence upon the other. The people within the organization determine its culture (Schneider, 1987).

Other evidence suggests that people choose environments closely related to their personalities and interests. Tom (1971) identified people's most preferred environments are environments that have the same "personality" profile as they do. Similarly, Vroom (1966) believed people choose an organization in which to work that they believe will be most instrumental in obtaining their valued outcomes. These theories conclude people with similar interests and personalities are likely to behave in similar ways.

In the field of leadership, it is important to first define the culture of the organization. Leadership is a form of culture and when matched with its environment is very effective (Ichikawa, 1996). This philosophy suggests that the people within the organization should possess some types of leadership qualities because they form the culture (Ichikawa, 1996). These people must have commitment to organizational tasks, the ability to solve problems within the organization, and the active interest and need in seeing through the solutions to these problems (Ichikawa, 1996).

#### Bandura's Social Cognitive Theory

In social cognitive theory, learning is explained as it takes place in the social milieu (naturalistic setting) and through cognitive processes. Bandura (1986) considered that human cognition plays a key role in the learning processes of individuals and these processes drive the learner's behavior. Unlike Skinner (1971), who believed in a linear explanation of behavior as a result of the environment (Stimulus → Response), Bandura

manifested that the key missing element was internal personal factors of consisting cognitive, affective, and biological events (Bandura, 1997).

Bandura (1986) identified the relationships between three major classes of determinants in the triadic reciprocal causation including personal agency (in the form of cognition, affect and biological events), behavioral, and environmental factors. These relationships are bi-directional because they reciprocate upon one other in human functioning. However, this reciprocity does not mean the constructs interact with equal strength. It has been depicted as a triangle with bi-directional arrows pointing to each construct.

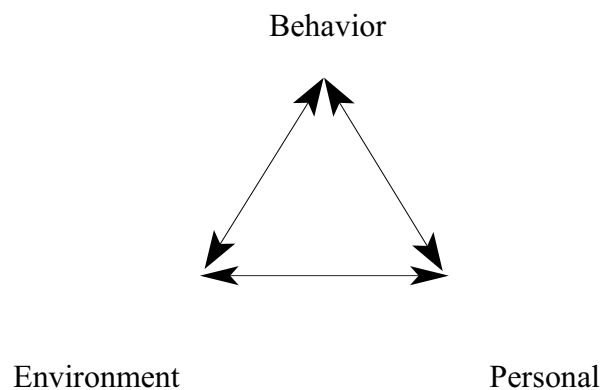


Figure 3: Bandura's (1986) Triadic Reciprocal Causation

Each construct is an interacting determinant upon the other two constructs. Personal agency affects behavior as well as environment. Environment, in turn, affects personal agency and behavior. Finally, behavior influences personal agency and the environment. For this reason, people can exercise control of their motivation and action. People neither act alone, nor do they simply react to the environment. Social cognitive theory allows for an emergent interactive agency model (Bandura, 1996).



Personal agency addresses core features of what it means to be human. These include intentionality, forethought, self-reactiveness, and self-reflectiveness.

Intentionality refers to an active commitment to bringing about a future course of action to be performed (Bandura, 2001). Forethought allows people to motivate themselves and guide their actions in the anticipation of future events. Self-reactiveness and self-reflectiveness means an individual is a self regulator and reflects upon his/her self consciousness in order to evaluate motivation, values and life pursuits (Bandura, 2001).

Using Bandura's (1986) triadic reciprocal causation model, job satisfaction has been translated as the behavioral construct, self efficacy as the personal construct, and job culture as the environmental construct.

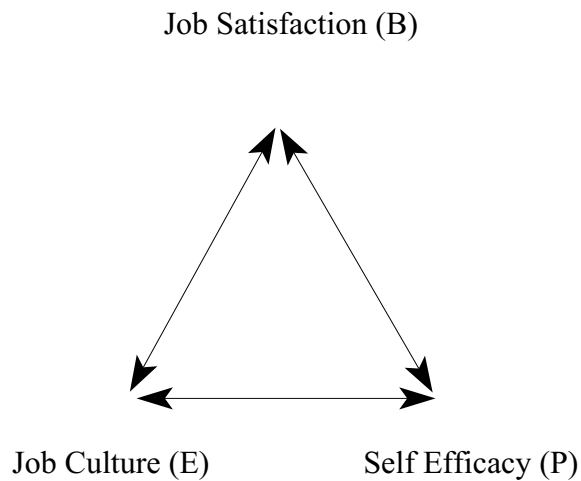


Figure 4: Job Satisfaction Model for Certified Athletic Trainers

#### Self Efficacy

According to Bandura (1997), “perceived self efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to produce given

attainments” (p. 3). The perceived self efficacy levels of individuals will influence several things including: the courses of action chosen, how much effort they will put forth in given situations, how long they will persevere in the face of difficulties and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with environmental demands, and the level of accomplishments they realize (Bandura, 1997).

The self efficacy levels (Bandura, 1997) of athletic trainers may vary depending upon the specific task at hand. For example, the athletic trainer may feel self efficacious in regards to evaluating an athlete with a knee injury; however, may feel less self efficacious when speaking to the press regarding that athlete’s injury. Self efficacy is a better predictor of behavior than self esteem because it is task specific (Bandura, 1997).

Self efficacy beliefs of certified athletic trainers will be defined based on their perceptions of their abilities to complete specific tasks related to athletic training. These specific tasks fall with the six domains of athletic training according to the National Athletic Trainers’ Association Board Of Certification’s (1999) role delineation study: (1) prevention of athletic injuries, (2) recognition, evaluation, and assessment of injuries, (3) immediate care of injuries, (4) treatment, rehabilitation, and reconditioning of athletic injuries, (5) health care administration, and (6) professional development and responsibility. Bandura (1997) identified four sources of self efficacy: 1) enactive mastery experience, 2) vicarious experience (modeling), 3) social (verbal) persuasion, and 4) physiological states (physical arousal).

### *Enactive Mastery Experience*

Enactive mastery experience refers to the successful completion of a task. This, according to Bandura (1997), is the most effective means for increasing self efficacy. Each success strengthens the beliefs in capability and failures create a self-doubt. However, if the tasks are not challenging enough, people are no longer motivated enough to continue, and if the tasks are too difficult, they would be become easily discouraged and quit (Bandura, 1997). Some setbacks and difficulties in human pursuits serve a useful purpose in teaching us that success usually requires sustained effort (Wood & Bandura, 1996). When individuals become confident in their capabilities through repeated successes, they are not adversely affected by the setbacks and failures.

The field of athletic training allows students the experience of enactive mastery experiences almost instantaneously within their education. Athletic training students must complete competency checks within their classes. These students must provide proof (competency checks) in their ability to prepare an ice bag and apply it to the injury at the appropriate time. The competencies vary in task difficulty, thus keeping the student challenged.

### *Vicarious Experience*

Vicarious experience strengthens self efficacy by learning through others or modeling (Bandura, 1997). Proficient models build self-beliefs of capability by conveying to observers strategies for managing different situations (Wood & Bandura, 1996). Peer modeling is the most effective behavior (Bandura, 1986). If a person sees a peer succeed at a task, his beliefs about his own capabilities will be raised. Conversely, if

he sees a peer exhibit high efforts and fail, his efficacy is lowered and his efforts are undermined (Bandura, 1986).

Athletic training students use the effects of vicarious experiences, or modeling during their coursework. Students are asked to model the behaviors of experienced fellow students (peer modeling), graduate students, clinical instructors and/or staff athletic trainers.

### *Verbal Persuasion*

Social (verbal) persuasion is the third source of self efficacy. Receiving realistic encouragement increases people's self efficacy by increasing their effort. However, if their self efficacy is raised to unrealistic levels and they fail at a given task, it undermines personal efficacy. Effective leaders motivate people by assigning tasks that bring success and avoid placing them in compromising positions which could lead to failures. To ensure progress in personal development, success should be measured in terms of self-improvement, rather than through triumphs over others (Wood & Bandura, 1996). It is important that people view the process of successes rather than focus on a specific task (Bandura, 1997).

Verbal persuasion is used within the field of athletic training when students are encouraged by their clinical instructors or staff athletic trainers. These individuals motivate their students in challenging ways which can increase their levels of self efficacy.

### *Physical Arousal*

Finally, the last source of self efficacy is physiological states (physical arousal). Physical arousal is the feeling of success after accomplishing a goal. Physical arousal can be affected by enhancing physical status, therefore reducing their stress levels, or altering their dysfunctional construals of somatic information (Wood & Bandura, 1996). The euphoria experienced after accomplishing a difficult task affects mood, and mood has a significant effect on self efficacy.

Physiological states (physical arousal) are experienced by those involved in athletic training at all levels. Students may feel that physiological state after passing the national certification exam, just as certified athletic trainers may experience this state of physical arousal after the successful rehabilitation of an athletic injury in which the athlete is able to return to the field or the court. There is something rewarding to the athletic trainer in knowing the role he/she played in the athlete's recovery when witnessing his/her initial return to competition.

### Summary

Based on this review of literature, it is important to assess the self efficacy levels of certified athletic trainers within all environmental settings. The decisions that have to be made and the responsibilities of these individuals require strong beliefs in their abilities to accomplish specific tasks. It is believed that their environmental settings and self efficacy beliefs will play a role in their levels of satisfaction within their jobs.

Chapter II introduced the purpose of the study and reviewed literature related to the history of athletic training education, including graduate and undergraduate athletic training education, and the roles of the athletic trainer comprising the six domains of athletic training (prevention of injuries; recognition, evaluation, and assessment of athletic injuries; immediate care of injuries and illnesses; treatment, rehabilitation, and reconditioning of athletic injuries; organization and administration; and professional development and responsibilities). Literature was reviewed on the dependent variable of job satisfaction, including motivation, goal theory and burnout. In addition, related literature on the independent variables of job culture and self efficacy were included.

Chapter III follows reviewing the methods used in the study, the design of the study and the sample selection. Instrument development is discussed, along with the data collection procedures, pilot testing and the protection of human participants.

## CHAPTER III: METHODS

### Introduction

A few studies (Barrett, 1999; Bell, 1989; Shapiro, 1987) have examined job satisfaction levels of athletic trainers and no known research exists examining the influences of athletic trainer's self efficacy and job culture on levels of job satisfaction. The purpose of this study was to identify job satisfaction levels of certified athletic trainers based on their levels of self efficacy and their perceptions of their job cultures. Because these variables have not been studied in the context of employed certified athletic trainers and no quantitative measures of athletic training self-efficacy beliefs and perceptions of job culture are known in their relation to job satisfaction, this study addresses this problem through the creation and testing of quantitative measures of these three constructs.

Based on the theoretical framework of Bandura's Social Cognitive Theory (1986) and guided by his Triadic Reciprocal Causation Model (1986), the following research questions were used in this study:

1. What is the level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers?
2. How do certified athletic trainers perceive their job culture as measured by the Job Culture Scale for Certified Athletic Trainers?

3. What is the job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers?
4. To what extent is there a relationship between job satisfaction and self efficacy beliefs of certified athletic trainers?
5. To what extent is there a relationship between job satisfaction and perceptions of job culture of certified athletic trainers?
6. To what extent is there a relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers?
7. To what extent does the combination of self efficacy beliefs and perceptions of job culture account for the level of job satisfaction among certified athletic trainers?

Chapter III will describe the design of the study, sample selection, instrument development, pilot testing, data collection procedures, protection of human subjects, and statistical analysis.

### Design of the Study

A correlational design using a survey approach was used to investigate the research questions. The study variables self efficacy, job culture and job satisfaction were derived from Bandura's (1986) triadic reciprocal causation model. Bandura (1986) identified the relationships among three major classes of determinants in the triadic reciprocal causation consisted of personal (in the form of cognition, affect and biological events), behavioral, and environmental factors. The model proposes that each construct is



an interacting determinant upon the other two constructs. Using Bandura's (1986) triadic reciprocal causation model, job satisfaction has been translated as the behavioral construct, self efficacy as the personal construct, and job culture as the environmental construct. Cronbach's alpha reliabilities were computed for each of the participants' scores in the pilot phase. Relationships among self efficacy, job culture and job satisfaction of certified athletic trainers were examined using a series of three Pearson correlations. A simultaneous multiple regression was computed in the full study providing a richer understanding of the degree of theoretical linkage between items in each sample. The SPSS statistical analysis program was used to analyze the data in this study.

#### Sample Selection

A convenience sample of 102 employed certified athletic trainers attending a district and state association symposium was used in the pilot phase. Sample selection for the full study comprised 374 employed certified athletic trainers who were members of the National Athletic Trainers' Association. Participants were employed in a variety of athletic training job settings including university/college, high school, clinic, clinic outreach/high school, professional team, or industry. An information letter was provided with the survey informing participants of the nature and purpose of the study.

Participation in both the pilot phase and full study was voluntary and participants were not offered incentives.

## Instrument Development

Because only a few studies (Barrett, 1999; Bell, 1989; Shapiro, 1987) have examined job satisfaction levels of athletic trainers and no known research exists examining the influences of athletic trainer's self efficacy and job culture on levels of job satisfaction, the development of an instrument (see Appendix A) to measure these factors was necessary. The study variables of self efficacy, job culture and job satisfaction needed to be assessed as they related to certified athletic trainers and their employment. Factors were determined for each variable and configured into statements that could be rated on a 4-point Likert scale for self efficacy beliefs and perceptions of job culture and a 7-point Likert scale for job satisfaction.

### *Self Efficacy Scale*

Initially, a 20-year veteran certified athletic trainer working in the university/collegiate setting presented a list of daily responsibilities incurred at his position as a NCAA Division I head football athletic trainer. These responsibilities were translated into 33 statements assessing the six domains of athletic training as determined by the 1999 National Athletic Trainers' Association Board Of Certification role delineation study: prevention of athletic injuries, recognition, evaluation, and assessment of injuries, immediate care of injuries, treatment, rehabilitation, and reconditioning of athletic injuries, health care administration, and professional development and responsibility. Participants were asked to rate the strength of their beliefs on a 4-point Likert-type format ("Excellent"=4, "Good"=3, "Fair"=2, "Poor"=1) in their abilities to perform these various tasks of certified athletic trainers. These scores were aggregated

and divided by the number of items to maintain the original metric of 1 to 4. Higher scores indicate higher levels of self efficacy beliefs.

#### *Job Culture Scale*

The same 20-year veteran certified athletic trainer submitted a list of 19 possible factors certified athletic trainers may be presented with in their job culture. From this list 26 statements were derived which reflected certified athletic trainers' perceptions of their organizations. Statements reflected the organization's values/commitments, perceptions about the certified athletic trainer's immediate supervisor and the certified athletic trainer's personal beliefs about his/her organization. Participants were asked to rate the level to which they agreed or disagreed using a 4-point Likert-type format ("Strongly Agree"=4, "Agree"=3, "Disagree"=2, "Strongly Disagree"=1) with each statement regarding their perceptions of their organizations and supervisors. These scores were aggregated and divided by the number of items to maintain the original metric of 1 to 4. Higher scores indicate higher perceptions of job culture.

#### *Job Satisfaction Scale*

Previous researchers accessing job satisfaction in athletic trainers (Barrett, 1999; Bell, 1989; Shapiro, 1987) used the Job Description Index (JDI) (Smith et. al, 1969) and the Job Satisfaction Survey (JSS) (Spector, 1985) or a modification of the JDI as measurements of job satisfaction. However, for the purposes of this study the decision was made to develop a job satisfaction scale including factors specifically related to certified athletic trainers and their work environment. First, certified athletic trainers were encouraged to rate their level of job satisfaction using a one item assessment (1–10,

with one representing low job satisfaction and 10 representing high job satisfaction). Next, the job satisfaction scale comprised 15 statements in which participants were instructed to assess various elements of job satisfaction ranging from no contribution (1) to large contribution (7) that contributed to their overall job satisfaction.

### *Sociodemographic Variables*

Sociodemographic information was collected on all voluntary participants through the Demographic Form (see Appendix B). The information consisted of gender, place of employment, primary job description, number of years experience in present job, number of years experience as a certified athletic trainer, number of full-time certified athletic trainers (including self) employed by your organization, number of certified athletic trainers that only teach classes on staff, highest level of education, and National Athletic Trainers Association (NATA) District. Two additional questions inquired about routes of certification (curriculum or internship program) and whether their entry into the athletic training profession was through a graduate entry level athletic training program.

### *Instrument Pilot Testing*

During the instrument pilot testing, certified athletic trainers (N=17) were recruited to review and complete the demographics page, self efficacy instrument, and the job culture instrument. This pilot panel consisted of certified athletic trainers working in the university/college, clinical outreach/high school, and clinical settings. Their primary job descriptions included graduate assistants, head athletic trainers, assistant athletic trainers and directors of sports medicine. Feedback from their review revealed a measurement that was somewhat accurate to accurate in describing their levels of self

efficacy beliefs and perceptions of job cultures. Comments and suggestions were addressed and used in the pilot phase of testing.

The pilot phase of testing was personally administered by the researcher to individual certified athletic trainers attending a district and a state athletic training symposium between March 27, 2003 and May 18, 2003. Prior to the instrument being administered, an information letter and written instruction (see Appendix C) and demographic sheet (see Appendix B) were distributed. Participants were allowed as much time as needed to complete the instrument. The researcher had submitted an application to the Auburn University Institutional Review Board and was granted approval to conduct research involving human participants (see Appendix D). Completed instruments were placed in an envelope and returned to the researcher for the purpose of scoring confirmation and for data analysis. A total of 102 completed surveys were returned.

Preliminary analyses were conducted on the self efficacy and job culture scores to determine internal reliability. Cronbach's alpha reliabilities (see Tables 1–2) were computed for the following four subscales in the self efficacy measure (Direct Health Care, Human and Physical Resource Management, Professional Development, and Public Relations) and the following three subscales in the job culture measure (Organizational Values, Immediate Supervisor, and Personal Beliefs within Organization). The subscales were determined by linking items in a manner consistent with the theoretical grounding of the study and the results were generally positive.

Although the 1999 Role Delineation Study by the National Athletic Trainers' Association Board of Certification yielded six domains of athletic training (prevention of

athletic injuries, recognition, evaluation, and assessment of injuries, immediate care of injuries, treatment, rehabilitation, and reconditioning of athletic injuries, health care administration, and professional development and responsibilities), for purposes of the study four subscales were developed. The reason for reducing these six domains to four subscales was due to the high correlation between the first 4 domains of athletic training, thus these subscales lacked discriminant validity.

The Self Efficacy Instrument for the Pilot Study had four subscales: Direct Health Care, Human and Physical Resource Management, Professional Development and Public Relations. Direct Health Care encompassed the following domains of athletic training as defined by the 1999 Role Delineation Study by the National Athletic Trainers' Association Board of Certification: prevention of athletic injuries; recognition, evaluation, and assessment of injuries; immediate care of injuries; and treatment, rehabilitation, and reconditioning of athletic injuries. Human and Physical Resource Management included the athletic training domain of health care administration, while Professional Development remained the same. The addition of Public Relations as a subscale was included as a result of the list of daily responsibilities incurred by the 20-year veteran certified athletic trainer in his position as a NCAA Division I head football athletic trainer.

Table 1

*Cronbach's Alpha for Self Efficacy Instrument (Pilot Study)*

Subscale	Items	Alpha
Direct Health Care	9	.82
Human & Physical Resource Management	17	.88
Professional Development	7	.77
Public Relations	3	.62

The Job Culture Instrument for the Pilot Study had three subscales:

Organizational Values, Immediate Supervisor, and Personal Beliefs within Organization.

Statements reflected the organization's values/commitments, perceptions about the certified athletic trainer's immediate supervisor and the certified athletic trainer's personal beliefs about his/her organization.

Table 2

*Cronbach's Alpha for Job Culture Instrument (Pilot Study)*

Subscale	Items	Alpha
Organizational Values	13	.88
Immediate Supervisor	7	.92
Personal Beliefs w/in Organization	6	.41 <sup>a</sup>

<sup>a</sup>If Job Culture item number 26 is dropped, then Alpha increases to 0.66.

As can be seen in Table 1, the Public Relations subscale of the Self Efficacy section in the Pilot Study had borderline internal reliability (Cronbach's alpha of 0.62) while the Personal Beliefs within Organization subscale of the Job Culture section in the Pilot Study (Table 2) demonstrated low internal consistency (Cronbach's alpha of 0.41). Even with these results, a decision was made to retain all items in the original measure for two reasons. First, the pilot phase of the study used a small sample. The full study's sample was sufficient for a confirmatory factor analysis providing a richer understanding of the degree of theoretical linkage between items in each sample. Second, the low alpha for the Personal Beliefs within Organization subscale of the Job Culture section (Pilot Study) could be improved to 0.66 by the deletion of item 26 (Table 2).



## Data Collection Procedures

In an attempt to increase the sample size for the full study, permission was requested and granted by the National Athletic Trainers Association (NATA) to administer the survey online. Data collection followed the NATA's policy (see Appendix E) regarding their support of research projects. First, the District IX Secretary was contacted via electronic mail and the project was explained. The investigator completed the NATA Research/Graduate Study Contact List Request Form (see Appendix F). The request for project support was granted and the investigator was instructed by the District IX Secretary to submit the survey, along with the Contact Cover Letter (see Appendix G), via electronic mail. This correspondence was immediately sent to the NATA and 1000 surveys were broadcasted via electronic mail on March 3, 2004 to certified athletic trainers for their completion. A second round of surveys were electronically distributed on April 8, 2004.

Each of the 1000 NATA randomly selected certified athletic trainers received an electronic mail including the Contact Cover Letter with the link to the online survey. Upon accessing the link, a welcome letter was visible. The welcome letter (see Appendix H) provided written instructions for completing the survey and contact information should the participants have questions regarding the survey.

## Protection of Human Participants

The purpose and procedures of this study were explained through written instructions. The proposal, the informed consent procedure, and the instruments were reviewed by the investigator's dissertation committee, the NATA District IX Secretary,

and the Auburn University Institutional Review Board. Each participating certified athletic trainer received an electronic mail with the Contact Cover Letter and the link to the online survey. The Contact Cover Letter was an abbreviated form of the information sheet approved by the Auburn University Institutional Review Board which explained that it was an anonymous, voluntary survey and participants were asked to complete and submit the survey by April 15, 2004.

### Summary

The Statistical Program for Social Science 10.0 (SPSS, 1999) was used in data analysis. Reliability for the participants' scores was determined by reporting Cronbach's alphas. Relationships among self efficacy, job culture and job satisfaction of certified athletic trainers were examined using a series of three Pearson correlations. A simultaneous multiple regression was performed to explain or predict the dependent variable. The level of significance for testing was .05.

Chapter III described the design of the study, sample selection, instrument development and the pilot testing of the instruments. Data collection procedures and the protection of human subjects were discussed, along with statistical analysis of the data.

Chapter IV will discuss the results of the study. The results include the description of the sample for sociodemographic characteristics, internal consistency reliabilities for each section of the instrument, and analysis of the research questions.

## CHAPTER IV: RESULTS OF THE STUDY

### Introduction

The purpose of this study was to identify job satisfaction levels of certified athletic trainers based on their levels of self efficacy and their perceptions of their job cultures. Few studies (Barrett, 1999; Bell, 1989; Shapiro, 1987) have examined job satisfaction levels of athletic trainers and no known research exists examining the influences of athletic trainer's self efficacy and job culture on levels of job satisfaction. Because these variables have not been studied in the context of employed certified athletic trainers and no quantitative measures of athletic training self-efficacy beliefs and perceptions of job culture are known in their relation to job satisfaction, this study addresses this problem through the creation and testing of quantitative measures of these three constructs.

Based on the theoretical framework of Bandura's Social Cognitive Theory (1986) and guided by his Triadic Reciprocal Causation Model (1986), the following research questions were used in this study:

1. What is the level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers?
2. How do certified athletic trainers perceive their job culture as measured by the Job Culture Scale for Certified Athletic Trainers?

3. What is the job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers?
4. To what extent is there a relationship between job satisfaction and self efficacy beliefs of certified athletic trainers?
5. To what extent is there a relationship between job satisfaction and perceptions of job culture of certified athletic trainers?
6. To what extent is there a relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers?
7. To what extent does the combination of self efficacy beliefs and perceptions of job culture account for the level of job satisfaction among certified athletic trainers?

Chapter IV presents the results of the data analysis and is divided into three sections. The first section presents a description of the sociodemographic variables for the total sample ( $N = 374$ ). The second section contains the internal consistency reliabilities for each instrument used in the study. The third section presents the research questions with data interpretation.

#### Description of the Sample

Sample selection for the full study comprised 374 employed certified athletic trainers and were members of the National Athletic Trainers' Association representing 10 districts. Participants were employed in a variety of athletic training job settings including university/college, high school, clinic, clinic outreach/high school, or

professional team. Their job descriptions ranged from head athletic trainers, assistant athletic trainers, directors of sports medicine, graduate assistants athletic trainers, or listed their positions as other.

Tables 3–7 show the demographic characteristics of the sample. As shown in Table 3, the sample was comprised of 164 (44%) females, and 210 (56%) males. The total years of experience at their present job ranged from 0 to 34, and the total years of experience as a certified athletic trainer ranged from 1 to 46. There were a total of 374 participants.

Table 3

*Sample by Gender*

Gender	<i>n</i>
Female	164
Male	210
Total	374

*N* = 374

The composition of the place of employment (see Table 4) for the sample was 191 (51.1%) University/College; 72 (19.3%) High School; 61 (16.3%) Clinic; 36 (9.6%) Clinic Outreach/High School; 5 (1.3%) Professional Team; 0 (0%) Industry; and 9 (2.4%) Other.

Table 4

*Sample by Place of Employment*

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Place of Employment	<i>n</i>
University/College	191
High School	72
Clinic	61
Clinic Outreach/High School	36
Professional Team	5
Industry	0
Other	9
Total	374

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*N* = 374

Table 5 reports the primary job description of the participating certified athletic trainers. There were 147 (39.3%) Head Athletic Trainer; 103 (27.5%) Assistant Athletic Trainers; 26 (7%) Directors of Sports Medicine; 6 (1.6%) Graduate Assistants; and 90 (24.1%) Other. The educational level (see Table 6) breakdown was as follows: 108 (28.9%) Bachelor Degrees; 236 (63.1%) Masters Degrees; and 30 (8%) Doctorate Degrees.

Table 5

*Sample by Job Description*

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<u>Job Description</u>	<u><i>n</i></u>
Head Athletic Trainer	147
Assist. Athletic Trainer	103
Director of Sports Medicine	26
Graduate Assistant	6
Other	90
Total	372

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*N* = 372

Table 6

*Sample by Educational Level*

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<u>Educational Level</u>	<u><i>n</i></u>
Bachelor Degrees	108
Masters Degrees	236
Doctorate Degrees	30
Total	374

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*N* = 374

Of the 374 certified athletic trainers participating, 182 (48.7%) completed a Commission on Accreditation of Allied Health Education Program (CAAHEP) accredited athletic training program (see Table 7). The remaining 192 (51.3%) graduated from an internship program.



Table 7

*Sample by Route of Certification*

Route of Certification	<i>n</i>
Athletic Training Education Program	182
Internship Program	192
Total	374

*N* = 374

Cronbach's Alphas

Range, mean, standard deviation and percent maximum for the study instruments are shown in Table 8. Study variables included self efficacy levels, perceptions of job culture, and job satisfaction levels.

*Self Efficacy Scale*

The Cronbach's alpha on the Self Efficacy scores was .91 (see Table 9). The number of valid cases was 374 for 33 items. The mean score (see Table 8) was 3.37 with a standard deviation of 0.35. In this study the self efficacy levels of certified athletic trainers averaged 84% (percent maximum), indicating a high level of self efficacy of participating certified athletic trainers (see Table 8).

### *Job Culture Scale*

The Cronbach's alpha for the Job Culture scores was .91 (see Table 7). The number of valid cases was 374 for 26 items. The mean score (see Table 8) was 3.05 with a standard deviation of 0.45. The perceptions of job culture for this study averaged 76%, indicating a moderately high level of certified athletic trainers' perceptions of job culture (see Table 8).

### *Job Satisfaction Scale*

The Cronbach's alpha coefficient for the Job Satisfaction scores was .76 (see Table 9). The number of valid cases was 373 for 15 items. The mean score (see Table 8) was 4.60 with a standard deviation of 0.83. In this study the level of job satisfaction among certified athletic trainers averaged 66%, indicating only a moderate level of job satisfaction for participating certified athletic trainers (see Table 8).

The 1999 Statistical Package for the Social Sciences (SPSS) reliability program was used to generate a Cronbach's alpha for internal consistency for Self Efficacy Scale, Job Culture Scale, and Job Satisfaction Scale (see Table 9).

Table 8

*Range, Means, Standard Deviations and Percent Maximum of Major Study Variables*

Instrument	Variable	Instrument Scale	<i>M</i>	<i>SD</i>	<i>%Max</i>
Self Efficacy Scale	Self Efficacy	1–4	3.37	0.35	0.84
Job Culture Scale	Job Culture	1–4	3.05	0.45	0.76
Job Sat. Scale	Job Sat.	1–7	4.60	0.83	0.66

Table 9

*Cronbach's Alpha of Study Instruments*

Instrument	Items	$\alpha$
Self Efficacy Scale	33	.91
Job Culture Scale	26	.91
Job Satisfaction Scale	15	.76

## Treatment of Missing Data

The demographic characteristics years experience as a certified athletic trainer (ATC) ( $n = 4$ ) and National Athletic Trainers' Association (NATA) District ( $n = 5$ ) had missing data. Participants either overlooked the question ( $n = 4$ ) or were uncertain of their NATA District ( $n = 5$ ). All unanswered items were handled as missing values as specified by SPSS (Shannon & Davenport, 2001).

## Analysis of the Research Questions

In this section the results of the analysis of the data in relation to the research questions are presented:

Research Question One: What is the level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers?

The level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers was high, 3.37. The instrument scale was 1 to 4 and the standard deviation was 0.35. The percent maximum for self efficacy levels of certified athletic trainers was .84, indicating a high level of self efficacy.

Research Question Two: How do certified athletic trainers perceive their job culture as measured by the Job Culture Scale for Certified Athletic Trainers?

Certified athletic trainers perceive their job culture as measured by the Job Culture Scale for Certified Athletic Trainers was moderately high, 3.05. The instrument

scale was 1 to 4 and the standard deviation was 0.45. The percent maximum for perceptions of job culture of certified athletic trainers was .76, indicating moderately high perceptions of job culture.

Research Question Three: What is the job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers?

The job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers was moderate, 4.60. The instrument scale was 1 to 7 with a standard deviation of 0.83. The percent maximum for job satisfaction levels of certified athletic trainers was .66, indicating only a moderate job satisfaction level.

Research Question Four: To what extent is there a relationship between job satisfaction and self efficacy beliefs of certified athletic trainers?

A Pearson Correlation was used to determine the relationship between job satisfaction and self efficacy beliefs of certified athletic trainers. In this study there was no statistically significant relationship between job satisfaction and self efficacy beliefs of certified athletic trainers,  $r = -.03$  with  $p = .555$ .

Research Question Five: To what extent is there a relationship between job satisfaction and perceptions of job culture of certified athletic trainers?

A Pearson Correlation was used to determine the relationship between job satisfaction and perceptions of job culture of certified athletic trainers. The relationship between these two variables was statistically significant,  $r = .12$  with  $p < .05$ , however, it is not practical.

Research Question Six: To what extent is there a relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers?

A Pearson Correlation was used to determine the relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers. In this study there was no statistically significant relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers,  $r = .05$  with  $p = .34$ .

Research Question Seven: To what extent does the combination of self efficacy beliefs and perceptions of job culture account for the level of job satisfaction among certified athletic trainers?

A simultaneous multiple regression analysis was used to determine the relationship between self efficacy beliefs and perceptions of job culture to job satisfaction levels among certified athletic trainers. The relationship was not statistically significant for independent variables self efficacy beliefs and perceptions of job culture,  $R = .12$  and  $R^2 = .02$  with  $p = .056$ . In this study only 2% of the variance was explained.

Table 10

*Summary of Regression Analysis Predicting Job Satisfaction Levels (N = 374)*

Variable	B	SE B	$\beta$
Self Efficacy	-.087	.122	-.037
Job Culture	.222	.095	.121

#### Summary

Chapter IV presented the results of the data analysis in relation to the seven research questions proposed by the researcher. Certified athletic trainers in this study reported high levels of self efficacy, moderately high perceptions of job culture and moderate levels of job satisfaction. There were no statistically significant relationships in this study among job satisfaction and self efficacy beliefs of certified athletic trainers or self efficacy beliefs and perceptions of job culture of certified athletic trainers. This study did not find that the combination of self efficacy beliefs and perceptions of job culture accounted for the level of job satisfaction among certified athletic trainers. The only statistically significant relationship found in this study was among perceptions of job culture and job satisfaction levels of certified athletic trainers. This was the only proposed relationship supported by the data.

The following chapter presents a discussion of the study findings, limitations, and implications for higher education and research. Areas for further research and a summary of the study are also presented.



## CHAPTER V: DISCUSSIONS, CONCLUSIONS, AND IMPLICATIONS

### Introduction

This chapter presents an overall discussion of the findings this study investigated in relationship to current literature. In addition, implications for certified athletic trainers (ATCs) and administrators in higher education programs of athletic training will be discussed along with areas for further research suggested.

Job satisfaction in certified athletic trainers has been studied previously (Barrett, 1999; Bell, 1989; Shapiro, 1987). However, these studies did not follow the conceptual framework, nor did they investigate the variables identified for investigation in this study (Self Efficacy, Job Culture, and Job Satisfaction). Bandura's Social Cognitive Theory (1986) served as the theoretical framework and Bandura's (1986) Triadic Reciprocal Causation Model guided the study which entails these three concepts: personal construct, behavior, and environment. Using this model, job satisfaction was translated as the behavioral construct, self efficacy as the personal construct, and job culture as the environmental construct.

In order to assess the job satisfaction levels of certified athletic trainers as a result of their self efficacy levels and perceptions of job culture, measures were developed specifically to investigate the relationship of these variables in relation to skills and tasks of certified athletic trainers working in a variety of settings. About 1000 National

Athletic Trainers' Association (NATA) certified athletic trainers were surveyed and 374 successfully completed the questionnaire on-line. These athletic trainers worked in colleges/universities, high schools (secondary schools), physical therapy clinics or hospitals (outreach), in addition to professional teams and athletic training education programs.

## Discussion

Few studies (Barrett, 1999; Bell, 1989; Shapiro, 1987) have examined job satisfaction levels of athletic trainers and no known research exists examining the influences of athletic trainer's self efficacy and job culture on levels of job satisfaction. This study is exploratory in nature, being the first known study to investigate the relationships between the study variables. The purpose of this study was twofold, to identify job satisfaction levels of certified athletic trainers based on their levels of self efficacy and their perceptions of their job cultures and to develop psychometrically sound measures for athletic trainer self-efficacy and organizational culture for athletic trainers. This study investigated the following research questions:

Research Question One: What is the level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers?

The level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers was high. Self efficacy levels have previously been studied in student athletic trainers (Jurges, Horodyski, Fleming, Stopka

& Gearhart, 2001; Peer & McClendon, 2002; Schindler, 2004; & Vela, 2001) in their relationship to academic proficiencies; however, no known studies are available to compare self efficacy levels of employed certified athletic trainers.

In this particular study, respondents indicated a rather high level of self efficacy levels. The mean score for self efficacy levels of certified athletic trainers was 3.37/4.0. This indicates these participants were confident in their abilities to perform their job tasks.

Research Question Two: How do certified athletic trainers perceive their job culture as measured by the Job Culture Scale for Certified Athletic Trainers?

Certified athletic trainers' perceptions of their job culture as measured by the Job Culture Scale for Certified Athletic Trainers was moderately high. The mean score for these participants was 3.05/4.0. According to this finding, certified athletic trainers perceived their work environments as favorable settings. As a whole, their organizations and supervisors believed in the importance of their work and respected them and the profession of athletic training.

Research Question Three: What is the job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers?

The job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers indicated only a moderate level of job

satisfaction. This result is lower than what Barrett (1999), Bell (1989), and Shapiro (1987) reported with certified athletic trainers having a high level of job satisfaction.

Research Question Four: To what extent is there a relationship between job satisfaction and self efficacy beliefs of certified athletic trainers?

In this study there was no statistically significant relationship between job satisfaction and self efficacy beliefs of certified athletic trainers.

Research Question Five: To what extent is there a relationship between job satisfaction and perceptions of job culture of certified athletic trainers?

The relationship between job satisfaction and perceptions of job culture of certified athletic trainers was statistically significant, but not practical. This indicates the organizations, supervisors, athletes and other peers presented a favorable expression of the work environment. These could be known as extrinsic factors. Previous studies (Locke, 1976; Smith, Kendall, & Hulin, 1969; Spector, 1985; Vroom, 1962; Weiss, Dawis, Lofquist, & England, 1966) of job satisfaction include extrinsic factors as sources for satisfaction in the workplace.

Research Question Six: To what extent is there a relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers?

In this study there was no statistically significant relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers.

Research Question Seven: To what extent does the combination of self efficacy beliefs and perceptions of job culture account for the level of job satisfaction among certified athletic trainers?

The relationship between self efficacy beliefs and perceptions of job culture to job satisfaction levels among certified athletic trainers was not statistically significant.

### Conclusions

An important and unexpected outcome of this study was the absence of data substantiating any significant relations between athletic trainer self-efficacy, organizational culture, and job satisfaction for athletic trainers. A large body of empirical data exists to support the importance of self-efficacy in human agency (Bandura, 1997; Davidson, 1971; and Rottschaefer, 1985). Furthermore, a clear theoretical linkage has been established between organizational culture and job satisfaction (Davis & Wilson, 2000; Latham, 1998; Mertler, 2002; Tovey & Adams, 1999; Woods & Weasmer, 2002; & Xin & MacMillian, 1999) in other work environments. Given the sound psychometric properties of all measures used in this study, the data from this study clearly indicates that an unidentified variable(s) has not been accounted.

Although in this study only 2% of the variance was explained, indicating that the model was mis-specified. That is, some of the relevant variables may not have been included, or conversely some of the variables included were irrelevant to job satisfaction levels of certified athletic trainers. Self efficacy levels had no statistically significant relationships with perceptions of job culture or job satisfaction levels. However, as Wood and Bandura (1996) noted, people's self-beliefs of efficacy also determine their level of

motivation, which is reflected in how much effort they will exert and how long they will persevere. In addition, the stronger the belief in their capabilities, the greater and more persistent are their efforts (Bandura, 1997).

Social cognitive theory also emphasizes human capacities for self-direction and self-motivation (Bandura, 1997). According to the social cognitive theory, most human motivation is cognitively generated, meaning it is intrinsic. People seek self-satisfaction from fulfilling valued goals, and they are motivated by discontent with substandard performances (Wood & Bandura, 1996). People intrinsically want to succeed, and when they fail they are not happy with that behavior and want to improve. These people possess high self efficacy. Efficacy beliefs play a central role in the cognitive regulation of motivation (Bandura, 1997; Wood & Bandura, 1996).

As to job culture, it would not be unexpected that some relationship would be present with job satisfaction. Results of previous studies (Locke, 1976; Smith, Kendall, & Hulin, 1969; Spector, 1985; Vroom, 1962; Weiss, Dawis, Lofquist, & England, 1966) of job satisfaction include extrinsic factors as sources for satisfaction in the workplace. Job culture, work culture or workplace environment could be used interchangeably and be explained as extrinsic factors. Extrinsic satisfaction refers to other aspects of the work situation (Weiss, Dawis, Lofquist, & England, 1966) outside of intrinsic satisfaction, which considers the nature of the job tasks themselves and how people feel about the work they do (Weiss, Davis, Lofquist, & England, 1966).

Schwartz and Davis (1981) defined culture as “a pattern of beliefs and expectations shared by the organization’s members, that produces norms that powerfully

shape the behavior of individuals or groups in organizations” (p. 33). This definition includes the three variables included in Bandura’s (1986) Triadic Reciprocal Causation. It posits culture (environment) is a compilation of beliefs (self efficacy) and expectations (personal) which produce norms that shape the behavior (behavior) of individuals or groups in organizations. Given this definition of culture, an assumption could be given that a relationship would exist between self efficacy, job culture and job satisfaction of certified athletic trainers.

As previously stated a variable (or variables) remains to be identified that explains job satisfaction in athletic trainers. A possible explanation for the results is that job satisfaction for athletic trainers is closely linked to the vicarious relationship between the athletic trainer and the athlete. That is, the athletic trainer feels the satisfaction of being a part of the athletic organization. This explanation holds merit given that athletic programs at any level of schooling tend to receive high levels of recognition in the local community and press. For example, news about individual student or team academic achievement is rarely disseminated by media, yet nightly news broadcasts routinely speak about upcoming high school athletic events. In the case of colleges, there is a greater emphasis upon the importance of the athletic event as demonstrated by larger crowds and even more media attention.

Such preoccupation by the general public with athletics may be influencing perceptions of job satisfaction of athletic trainers. By analogy, the athletic trainers may be receiving positive reinforcement regarding their job satisfaction in much the same way that a *roadie* feels satisfaction for touring the country with a popular rock band.

Admittedly, this is speculation. However, given what is known about the importance of self-efficacy in determining courses of action people choose and the demonstrated linkages between organizational culture and job satisfaction in other work environments it does create a plausible explanation that would indicate the theoretical model developed for this study is valid but needs refinement to account for a social cognitive component that may be masking the effects of the study variables. This intriguing possibility is offered as a suggestion for further study later in this chapter.

#### Implications for Certified Athletic Trainers

Because job satisfaction levels of certified athletic trainers have been limited to a handful of studies (Barrett, 1999; Bell, 1989; Shapiro, 1987), this study contributes to the literature. It offers certified athletic trainers psychometrically sound instruments for athletic trainers to measure self-efficacy levels, perceptions of job (organizational) culture and levels of job satisfaction. This information may be used by human resource departments when hiring athletic trainers or later when athletic trainers decide to move on to other positions.

#### Implications for Higher Education

Bandura (1997) noted, “An important initial goal in career development is to build students’ efficacy to find an occupational calling for themselves that provides structure and meaning to their educational pursuits” (p. 428). When a student graduates from a program, it is expected that he will pursue the profession in which he received the education. However, in a recent article in the *NATA News*, the Joint Review Committee on Educational Programs in Athletic Training (2005) released statistics from 2004 on



students who graduated from entry-level athletic training programs. Surprisingly, only 32% of these students obtained athletic training jobs, while sixty-eight percent pursued opportunities other than full-time employment in athletic training. About half of the students pursuing opportunities outside full-time employment remained in the academic setting either as a full-time graduate student or as a graduate assistant/teaching assistant/graduate fellow. This leaves in question nearly twenty percent of students no longer affiliated with athletic training.

As noted earlier, the lack of empirical evidence linking job satisfaction of athletic trainers to their self-efficacy and their organization's culture requires further investigation through well-designed, theory-based research. A clear implication of this study is the existence of unidentified influencing variable(s) for job research to ascertain whether the model proposed for this study is conceptually correct but its effects are masked by factors athletic trainers may not readily report (e.g., the *roadie* factor) or whether the model is theoretically flawed and in need of revision. According to Kuhn (1996) science is advanced by building upon and refining current theory. Since this study is the first known to incorporate these variables, it provides a starting point for academicians and those in the higher education community to answer Kuhn's call.

#### Areas of Further Research

Athletic trainers who report satisfaction within their work have some reason for this satisfaction. Job satisfaction levels in this study were slightly lower than previous studies (Barrett, 1999; Bell, 1989; Shapiro, 1987). Whether the reasoning is due to self satisfaction (intrinsic motivator), the people they work with (extrinsic motivator), or the

*roadie* factor, qualitative field work to investigate these unknown variables is warranted. Additional studies should be replicated with a larger sample and be sensitive to athletic trainers working at all levels, including college/university, high school, clinics, hospitals and professional teams. A more intensive investigation of the variables of self efficacy, job culture and job satisfaction of certified athletic trainers should guide further research. The next level of study should employ mixed methods to allow for face-to-face data acquisition (focus groups) and perhaps representative case studies to provide contextual clarity to the quantitative data.

### Summary

The purpose of this study was to identify levels of self efficacy and perceptions of job culture as they relate to job satisfaction among certified athletic trainers. The study proposed and addressed seven research questions which were:

1. What is the level of self efficacy among certified athletic trainers as measured by the Self Efficacy Scale for Certified Athletic Trainers?
2. How do certified athletic trainers perceive their job culture as measured by the Job Culture Scale for Certified Athletic Trainers?
3. What is the job satisfaction level of certified athletic trainers as measured by the Job Satisfaction Scale for Certified Athletic Trainers?
4. To what extent is there a relationship between job satisfaction and self efficacy beliefs of certified athletic trainers?
5. To what extent is there a relationship between job satisfaction and perceptions of job culture of certified athletic trainers?

6. To what extent is there a relationship between self efficacy beliefs and perceptions of job culture of certified athletic trainers?
7. To what extent does the combination of self efficacy beliefs and perceptions of job culture account for the level of job satisfaction among certified athletic trainers?

Since this study was exploratory in nature a secondary goal of the research was also to develop measures to assess levels of self efficacy, perceptions of job culture, and levels of job satisfaction among certified athletic trainers. A sample of 374 employed certified athletic trainers, also members of the National Athletic Trainers' Association, represented ten districts. Participants were employed in a variety of athletic training job settings including university/college, high school, clinic, clinic outreach/high school, or professional team. Their job descriptions ranged from head athletic trainers, assistant athletic trainers, directors of sports medicine, graduate assistants athletic trainers, or listed their positions as other. Certified athletic trainers completed a five-part questionnaire: the Demographics data form, the Overall Self Reporting Job Satisfaction Scale, the Job Satisfaction Scale for Certified Athletic Trainers, the Job Culture Scale for Certified Athletic Trainers, and the Self Efficacy Scale for Certified Athletic Trainers.

The literature reviewed athletic training, self efficacy, job culture and job satisfaction. Data collection, correlation and multiple regression analysis were used to determine levels of self efficacy, perceptions of job culture, levels of job satisfaction and directions and strengths of relationships.

Because this study was the first known of its kind, the findings of the study are unique. Job satisfaction levels in this study were slightly lower than previous studies (Barrett, 1999; Bell, 1989; Shapiro, 1987). A more intensive investigation of these variables (self efficacy, job culture, and job satisfaction of certified athletic trainers) should guide further research in order to provide certified athletic trainers and educators insight on the profession of athletic training.

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## APPENDICES

APPENDIX A  
INSTRUMENTS

## Overview

The following survey is designed to measure your **job satisfaction** as an athletic trainer. Your responses should be specific to **your current job**.

### PART A

On a scale of 1-10, with one representing low job satisfaction, please rate your level of job satisfaction for your current job. \_\_\_\_\_

### PART B

The remainder of the survey asks you to assess various **elements of job satisfaction** that **contribute** to your **overall job satisfaction**. Please respond using the scale provided.

1. Personal interaction with athletes ...

1	2	3	4	5	6	7
no contribution			some contribution			large contribution

2. Level of pay ...

1	2	3	4	5	6	7
no contribution			some contribution			large contribution

3. Demands on time ...

1	2	3	4	5	6	7
no contribution			some contribution			large contribution

4. Appropriate training equipment

1	2	3	4	5	6	7
no contribution			some contribution			large contribution

5. Job autonomy
- |                 |   |   |                   |   |                    |   |  |
|-----------------|---|---|-------------------|---|--------------------|---|--|
| 1               | 2 | 3 | 4                 | 5 | 6                  | 7 |  |
| no contribution |   |   | some contribution |   | large contribution |   |  |
6. Respect
- |                 |   |   |                   |   |                    |   |  |
|-----------------|---|---|-------------------|---|--------------------|---|--|
| 1               | 2 | 3 | 4                 | 5 | 6                  | 7 |  |
| no contribution |   |   | some contribution |   | large contribution |   |  |
7. Impact on athletes
- |                 |   |   |                   |   |                    |   |  |
|-----------------|---|---|-------------------|---|--------------------|---|--|
| 1               | 2 | 3 | 4                 | 5 | 6                  | 7 |  |
| no contribution |   |   | some contribution |   | large contribution |   |  |
8. Appropriate facilities
- |                 |   |   |                   |   |                    |   |  |
|-----------------|---|---|-------------------|---|--------------------|---|--|
| 1               | 2 | 3 | 4                 | 5 | 6                  | 7 |  |
| no contribution |   |   | some contribution |   | large contribution |   |  |
9. Expectations of coaches
- |                 |   |   |                   |   |                    |   |  |
|-----------------|---|---|-------------------|---|--------------------|---|--|
| 1               | 2 | 3 | 4                 | 5 | 6                  | 7 |  |
| no contribution |   |   | some contribution |   | large contribution |   |  |
10. Paperwork
- |                 |   |   |                   |   |                    |   |  |
|-----------------|---|---|-------------------|---|--------------------|---|--|
| 1               | 2 | 3 | 4                 | 5 | 6                  | 7 |  |
| no contribution |   |   | some contribution |   | large contribution |   |  |
11. Opportunity for advancement

	1	2	3	4	5	6	7
	no contribution			some contribution			large contribution
12.	Recognition for accomplishments						
	1	2	3	4	5	6	7
	no contribution			some contribution			large contribution
13.	Expectations of physician(s)						
	1	2	3	4	5	6	7
	no contribution			some contribution			large contribution
14.	Opportunity for professional development						
	1	2	3	4	5	6	7
	no contribution			some contribution			large contribution
15.	Importance of job						
	1	2	3	4	5	6	7
	no contribution			some contribution			large contribution

PART C

The following items address various tasks for athletic trainers. In each case you are asked to rate the strength of your beliefs in your abilities to perform the tasks. Please circle your response.

**Scale used:    Excellent                      Good                      Fair                      Poor**

*I believe in my ability to . . .*

1. assess the extent of an injury.

**Excellent                      Good                      Fair                      Poor**

2. provide the correct rehabilitation protocol for an injury.

**Excellent                      Good                      Fair                      Poor**

3. maintain an accurate inventory for athletic training supplies.

**Excellent                      Good                      Fair                      Poor**

4. coordinate job responsibilities of other athletic trainers.

**Excellent                      Good                      Fair                      Poor**

5. maintain training facilities.

**Excellent                      Good                      Fair                      Poor**

6. implement drug-testing policies.

**Excellent                      Good                      Fair                      Poor**

7. conduct pre-participation physical screenings for athletes.

**Excellent                      Good                      Fair                      Poor**

8. maintain accurate records for insurance.

**Excellent                      Good                      Fair                      Poor**



9. handle travel responsibilities.

**Excellent**                      **Good**                      **Fair**                      **Poor**

10. monitor for NCAA compliance.

**Excellent**                      **Good**                      **Fair**                      **Poor**

11. work effectively with athletes during strength and conditioning activities.

**Excellent**                      **Good**                      **Fair**                      **Poor**

*I believe in my ability to . . .*

12. stay up-to-date with new information relevant to treating injuries.

**Excellent**                      **Good**                      **Fair**                      **Poor**

13. meet continuing education criteria.

**Excellent**                      **Good**                      **Fair**                      **Poor**

14. communicate with coaches.

**Excellent**                      **Good**                      **Fair**                      **Poor**

15. hold my ground when deciding proper time frame for an athlete to return to action

**Excellent**                      **Good**                      **Fair**                      **Poor**

16. communicate with parents of athletes in reassuring ways.

**Excellent**                      **Good**                      **Fair**                      **Poor**

17. remain upbeat in stressful times.

**Excellent**                      **Good**                      **Fair**                      **Poor**

18. mentor newly hired athletic trainers.

**Excellent**                      **Good**                      **Fair**                      **Poor**

19. get difficult athletes to follow their rehabilitation protocol.

**Excellent**                      **Good**                      **Fair**                      **Poor**

20. perform job-related public speaking engagements.

**Excellent**                      **Good**                      **Fair**                      **Poor**

21. balance the needs of an injured athlete against the pressure of returning them to action as soon as possible.

**Excellent**                      **Good**                      **Fair**                      **Poor**

22. perform multiple tasks simultaneously.

**Excellent**                      **Good**                      **Fair**                      **Poor**

23. manage time effectively.

**Excellent**                      **Good**                      **Fair**                      **Poor**

24. effectively manage the employees that work under my direction.

**Excellent**                      **Good**                      **Fair**                      **Poor**

*I believe in my ability to . . .*

25. counsel athletes when they confide in me regarding sensitive or personal issues.

**Excellent**                      **Good**                      **Fair**                      **Poor**

26. create an effective work atmosphere.

**Excellent**                      **Good**                      **Fair**                      **Poor**

27. work with athletic trainers to improve deficiencies.

**Excellent**                      **Good**                      **Fair**                      **Poor**

28. change my techniques to motivate different athletes.

**Excellent**                      **Good**                      **Fair**                      **Poor**

29. successfully structure the efforts of others towards desirable outcomes.

**Excellent**                      **Good**                      **Fair**                      **Poor**

30. remain task oriented during difficult times.

**Excellent**                      **Good**                      **Fair**                      **Poor**

31. work effectively with alumni.

**Excellent**                      **Good**                      **Fair**                      **Poor**

32. model effective job-related behaviors for other athletic staff.

**Excellent**                      **Good**                      **Fair**                      **Poor**

33. maintain financial records.

**Excellent**                      **Good**                      **Fair**                      **Poor**

PART D

Please answer the following questions based upon your perception of your organization. *Organization* refers to the program you work within (i.e. clinic, college, high school, etc.)

Scale used: SA-Strongly Agree; A-Agree; D-Disagree; SD-Strongly Disagree

1. *My organization values and/or is committed to . . .*

providing adequate human resources to perform job tasks.	SA	A	D	SD
providing adequate material resources to perform job tasks.	SA	A	D	SD
providing adequate time to perform job tasks.	SA	A	D	SD
my worth to the program.	SA	A	D	SD
rewarding my job performance.	SA	A	D	SD
my educational background.	SA	A	D	SD
my prior experience in athletic training.	SA	A	D	SD
my professional relationship with doctors.	SA	A	D	SD
my professional relationship with the community.	SA	A	D	SD
my professional relationship with the parents of athletes/patients..	SA	A	D	SD
my professional relationship with coaches.	SA	A	D	SD
my professional relationship with administrators.	SA	A	D	SD
my professional relationship with athletes/patients.	SA	A	D	SD

**2. My immediate supervisor, i.e., administrator, coach, athletic directors (whichever applies to your work environment) . . .**

understands the job tasks of ATC.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
values ATC's worth to organization.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
values the profession of athletic training.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
utilizes ATC to full extent of abilities.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
seeks expertise from ATC when dealing with organizational/administrative decisions.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
has an awareness of actual time requirements to perform job.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
appreciates personal (self/family) sacrifices of ATC.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>

**3. I believe within my organization. . .**

ATCs have high levels of responsibility and little authority/control.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
realistic expectations are placed on ATCs.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
ATCs are required to perform duties outside the realm of athletic training.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
ATCs have a high level of job security.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
ATCs salaries adequately reflect actual worth to organization.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
ATCs have opportunities for advancement.	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>

APPENDIX B  
DEMOGRAPHIC FORM

**Demographics**

\_\_\_\_ Male # years experience in present job: \_\_\_\_\_

\_\_\_\_ Female # years total experience as a ATC: \_\_\_\_\_

Place of employment

- \_\_\_\_ a) university/college
- \_\_\_\_ b) high school
- \_\_\_\_ c) clinic
- \_\_\_\_ d) clinic outreach/high school
- \_\_\_\_ e) professional team
- \_\_\_\_ f) industry
- \_\_\_\_ g) other \_\_\_\_\_

Including yourself, how many full-time certified athletic trainers are employed by your organization? \_\_\_\_\_

Do you have athletic trainers that only teach classes on your staff? \_\_\_\_yes \_\_\_\_no

If yes, how many? \_\_\_\_\_

What is your current primary job description?

- \_\_\_\_ a) head trainer
- \_\_\_\_ b) assistant trainer
- \_\_\_\_ c) director of sports medicine
- \_\_\_\_ d) graduate assistant
- \_\_\_\_ e) other \_\_\_\_\_

Highest level of education:

- \_\_\_\_ a) Bachelors
- \_\_\_\_ b) Masters
- \_\_\_\_ c) Doctorate

Did you enter the profession through a graduate entry level athletic training program?

\_\_\_\_yes \_\_\_\_\_no

Did you complete your athletic training program through an undergraduate curriculum or an internship program?

\_\_\_\_curriculum \_\_\_\_\_internship program

Which NATA district do you work in? \_\_\_\_\_

APPENDIX C  
INFORMATION LETTER



# Auburn University

Auburn University, Alabama 36849-5221

Educational Foundations  
Leadership and Technology  
4036 Haley Center

Telephone: (334) 844-4460  
FAX: (334) 844-3027

## INFORMATION SHEET FOR Job Satisfaction Measure for Certified Athletic Trainers

You are invited to participate in a research study designed to investigate the levels of job satisfaction of certified athletic trainers working in professional, collegiate, university, high school, or clinical levels. This study is being conducted by Jamie S. Gamber, Doctoral Student at Auburn University, under the supervision of Dr. Anthony Guarino, Associate Professor in Educational Foundations, Leadership and Technology. I hope to learn what, if any, relationships exist between the self-efficacy levels of certified athletic trainers and their perceived job culture and how this affects their levels of job satisfaction. You were selected as a possible participant because you are a certified athletic trainer and member of the National Athletic Trainers Association.

If you decide to participate, I will ask you to take a minute to read through this letter and complete the attached survey. You will find the survey at [frontpage.auburn.edu/education/gambejs](http://frontpage.auburn.edu/education/gambejs). It should take no longer than 15 minutes to complete and you are only asked to participate in this study once.

There are no known risks associated with this protocol.

The study will begin to develop a theoretical understanding regarding certified athletic trainers' levels of job satisfaction based on their self-efficacy beliefs and job culture. There are no direct benefits for participants completing this survey.

Any information obtained in connection with this study will remain anonymous. Information collected through your participation may be used to fulfill research requirements for my dissertation, published in a professional journal, and/or presented at a professional meeting. Participants may withdraw from participation at any time, without penalty, however, after they have provided anonymous information they will be unable to withdraw their data after participation since there will be no way to identify individual information.

Your decision whether or not to participate will not jeopardize your future relations with Auburn University or the Educational Foundations, Leadership and Technology, or the National Athletic Trainers Association.

HUMAN SUBJECTS  
OFFICE OF RESEARCH  
PROJECT # 03-053 EX 0301  
APPROVED 1/25/03 TO 1/28/05

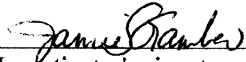
Page 1 of 2

A LAND-GRANT UNIVERSITY

If you have any questions I invite you to ask them now. If you have questions later, please contact Jamie S. Gamber by phone or email at (334) 821-9060, [gambejs@auburn.edu](mailto:gambejs@auburn.edu), or Dr. Anthony Guarino at (334) 844-3075, [guariaj@auburn.edu](mailto:guariaj@auburn.edu). We will be happy to answer them.

For more information regarding your rights as a research participant you may contact the Office of Human Subjects Research by phone or e-mail. The people to contact there are Executive Director E.N. "Chip" Burson (334) 844-5966 ([bursoen@auburn.edu](mailto:bursoen@auburn.edu)) or IRB Chair Dr. Peter Grandjean at (334) 844-1462 ([grandpw@auburn.edu](mailto:grandpw@auburn.edu)).

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

                      1-14-04  
Investigator's signature                      Date

                      1-14-04  
Co-investigator's signature                      Date  
(if appropriate)

HUMAN SUBJECTS  
OFFICE OF RESEARCH  
PROJECT #03-053 EX 0301  
APPROVED 1/25/03 TO 1/28/05

APPENDIX D  
INSTITUTIONAL REVIEW BOARD

# AUBURN UNIVERSITY

AUBURN UNIVERSITY, ALABAMA 36849

*Associate Provost and  
Office of Human Subjects  
Vice President for Research  
Telephone: (334) 844-4784  
FAX: (334) 844-5971*



*Office of Human Subjects  
Institutional Review Board for the Use of  
Human Subjects  
307 Samford Hall  
Telephone: (334) 844-5966  
FAX: (334) 844-4391*

March 18, 2003

MEMO TO: Jamie Gamber  
EFLT

PROTOCOL TITLE: "Self Efficacy Measure for Certified Athletic Trainers"

IRB File: #03-053 EX 0301

The referenced protocol was approved "Exempt" from further review under 45 CFR 46.101 (b)(2) by IRB procedure on January 25, 2003. You should retain this letter in your files, along with a copy of the revised protocol and other pertinent information concerning your study. If you should anticipate a change in any of the procedures authorized in protocol #03-053, you must request and receive IRB approval prior to implementation of any revision. Please reference the above IRB File in any correspondence regarding this project.

If you will be unable to file a Final Report on your project before January 24, 2004, you must submit a request for an extension of approval to the IRB no later than January 1, 2004. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to January 24, 2004, you must suspend the project immediately and contact the Administrator of Human Subjects for assistance.

A Final Report will be required to close your IRB project file.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 844-5966.

Sincerely,

E. N. (Chip) Burson, Executive Director  
Office of Human Subjects Research

cc: Dr. William Spencer  
Dr. Wade Smith

# AUBURN UNIVERSITY

Auburn University, Alabama 36849



Office of Human Subjects Research  
307 Samford Hall

Telephone: 334-844-5966  
Fax: 334-844-4391

MEMORANDUM TO: Jamie Gamber  
EFLT

TITLE: "Self Efficacy Measure for Certified Athletic Trainers"

IRB AUTHORIZATION: #03-053 EX 0301  
ORIGINAL APPROVAL DATE: January 25, 2003  
IRB EXPIRATION DATE: January 24, 2004

The modifications received on April 10, 2003 for the above referenced protocol have been approved and will continue the designation "Exempt." If the project is expected to continue beyond January 24, 2004, it will be necessary to request an extension of Board approval. To ensure continuing IRB approval of your project, the renewal request should be received no later than January 1, 2004.

You should immediately report to the IRB any proposed changes in the protocol or procedures and any unanticipated problems involving risk to subjects or others. **Please be sure to reference the above authorization number in any future correspondence regarding this project.**

If you have any questions concerning this Board action, please contact the OHSR at 844-5966.

Sincerely,

A handwritten signature in black ink, appearing to read "E. N. Burson".

E. N. (Chip) Burson, Executive Director  
Office of Human Subjects in Research

cc: Dr. William Spencer  
Dr. Wade Smith

# Auburn University

Auburn University, Alabama 36849



Office of Human Subjects Research  
307 Samford Hall

Telephone: 334-844-5966  
Fax: 334-844-4391  
hsubjec@auburn.edu

February 11, 2004

MEMORANDUM TO: Jamie Gamber  
EFLT

PROTOCOL TITLE: "Self Efficacy Measure for Certified Athletic Trainers"

IRB File: # 03-053 EX 0301

The modifications for the above referenced protocol have been approved and will continue the designation "Exempt." If the project is expected to continue beyond January 28, 2005, it will be necessary to request an extension of Board approval. To ensure continuing IRB approval of your project, the renewal request should be received no later than December 17, 2004.

You should immediately report to the IRB any proposed changes in the protocol or procedures and any unanticipated problems involving risk to subjects or others. **Please be sure to reference the above authorization number in any future correspondence regarding this project.**

If you have any questions concerning this Board action, please contact the OHSR at 844-5966.

Sincerely,

E. N. (Chip) Burson, Executive Director  
Office of Human Subjects Research

cc: Dr. William Spencer  
Dr. Wade Smith

APPENDIX E

NATA POLICY FOR CONDUCTING SURVEYS



### **NATA policy regarding lists for members conducting surveys**

**Members sending up to 1,000 surveys can be done via email:** A broadcast to a maximum of 1,000 email addresses can be provided for members conducting research projects. NATA has the ability to provide a random sample of the population, if it exceeds 1,000. NATA will transmit the cover letter (containing a link to the member's questionnaire) via email to recipients. The transmission will be labeled as coming from the researcher.

**Member surveys of more than 1,000 will be conducted via U.S. mail:** Since email lists are not available in quantities above 1,000, member research that requires a population greater than 1,000 is handled in the following manner. NATA can provide name and address of the population desired so the member can send the hard copy surveys via U.S. mail. The member must sign an agreement indicating the data will be used only one time and only for the stated purpose. NATA will forward the data electronically to the member, who can then print the labels for the mailing.

**Second wave to be conducted via U.S. mail:** Members who wish to contact recipients a second time will be provided with an electronic file that contains names and addresses for follow up by U.S. mail. This request must be made at the same time as the first, and also requires signing a one-time use agreement.

**NOTE:** THIS POLICY IS SUBJECT TO CHANGE WITHOUT NOTICE.  
Only NATA members may access this service.



APPENDIX F

NATA RESEARCH/GRADUATE STUDY CONTACT LIST REQUEST FORM



NATIONAL ATHLETIC TRAINERS' ASSOCIATION, INC.  
RESEARCH/GRADUATE STUDY  
Contact List Request Form



Request Date: \_\_\_\_\_ Date Needed: \_\_\_\_\_

Member Making Request: \_\_\_\_\_

NATA Member Number: \_\_\_\_\_ (Required)

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ Fax: \_\_\_\_\_

Title of Study: \_\_\_\_\_

\_\_\_\_\_

Purpose Statement: \_\_\_\_\_

\_\_\_\_\_

Institution where Research is Being Conducted: \_\_\_\_\_

Advisor's Signature (if applicable): \_\_\_\_\_ Date: \_\_\_\_\_

Funding Source of Study: \_\_\_\_\_

- \*\* Please include a copy of your survey instrument, informed consent form, and documentation of approval from your Institutional Review Board (IRB).**
- \*\* If you are requesting an email broadcast from the National Office for notification of a web site for your survey, you MUST provide the letter of announcement that you plan on using in the broadcast as well as your current email address.**

*Send this form to your District Secretary for processing.  
Please allow three to four weeks for delivery.*



**NATIONAL ATHLETIC TRAINERS' ASSOCIATION, INC.  
RESEARCH/GRADUATE STUDY  
Contact List Request Form**



Type of Contact: Labels: \_\_\_\_\_ Pressure Sensitive ("1 x 2 5/8" – Avery 5160) Peel and Stick  
 \_\_\_\_\_ Comma, Quote Delimited Disk-Format  
 \_\_\_\_\_ Comma, Quote Delimited E-mail Attachment-Format  
 Email Survey: \_\_\_\_\_ Email broadcast service by National Office (max. 1000 recipients)  
 \_\_\_\_\_ Name and address file by email attachment to accompany email  
 broadcast service (for second reminder)

All Districts or Specific District(s): \_\_\_\_\_  
 State(s), International, Other (specify): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Member Type:	_____ All Categories	Setting:	_____ Clinical
	_____ Regular Certified		_____ Clinical/Industrial
	_____ Student Certified		_____ College Student
	_____ Retired Certified		_____ Corporate
	_____ Associate		_____ Government
	_____ Student-Undergrad		_____ Health/Fitness
	_____ Student-Graduate		_____ High School
	_____ Intl NonCertified		_____ HS/Clinic
	_____ Intl Certified		_____ Hospital
			_____ Industrial
			_____ Junior College
			_____ Law Enforcement
			_____ Middle/Jr High
			_____ Performing Arts
			_____ Pro Baseball
			_____ Pro Basketball
			_____ Pro Football
			_____ Pro Golf
			_____ Pro Hockey
			_____ Pro Soccer
			_____ Pro Tennis
			_____ Pro Sports
			_____ Rodeo
			_____ Sales/Marketing
			_____ Sports Club
			_____ Univ & College
			_____ Youth Sports
			_____ Other Professions
			_____ Unemployed

**CONTACT LIST USE AGREEMENT**

I certify that the requested NATA mailing list will be utilized by the above-mentioned organization/individual only for mailing of the study specified. I verify that the list will not be duplicated, copied, or reproduced in any manner, but only for the aforementioned one-time use. One-time use does not allow the purchasing/receiving entity to provide NATA's members with a "subscription" or any other product or service that reaches members in any way more than once without the member's individual consent.

\_\_\_\_\_  
Applicant Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Approved by (District Secretary)

\_\_\_\_\_  
Date

APPENDIX G

NATA CONTACT COVER LETTER

Dear Fellow Certified Athletic Trainer:

I am a doctoral student at Auburn University, requesting your help to complete part of my degree requirements. Please follow the link at the end of this letter to an online survey titled: Job Satisfaction of Certified Athletic Trainers

The questionnaire consists of 11 demographic questions and 75 Likert Scale (1-strongly agree to 4 strongly disagree) questions, which will take about fifteen minutes to complete.

One thousand randomly selected certified NATA members in the United States with a listed email address are being asked to submit this questionnaire, but you have the right to choose not to participate. The Auburn University Institutional Review Board has approved this study for the Protection of Human Subjects.

This is a completely anonymous questionnaire and upon submission, neither your name nor email address will be attached to your answers. Your information will be kept strictly confidential.

As a fellow certified athletic trainer, your knowledge and opinions regarding this topic makes your input invaluable. Please take a few minutes to fill out the anonymous questionnaire you will find by clicking on this link and submit it by April 15, 2004: ([frontpage.auburn.edu/education/gambejs](http://frontpage.auburn.edu/education/gambejs))

Thank you for your time and consideration.

Sincerely,

Jamie S. Gamber, MEd, ATC  
Auburn University  
420 Arnell Lane, Auburn, AL 36830  
[gambejs@auburn.edu](mailto:gambejs@auburn.edu)

APPENDIX H  
ONLINE WELCOME LETTER

## JOB SATISFACTION OF CERTIFIED ATHLETIC TRAINERS

Welcome. You have agreed to participate in a survey to assess the job satisfaction levels of certified athletic trainers. Please take a moment to read through these instructions for completing the survey.

There are four parts to the survey. As you complete each section it will immediately take you to the next section upon clicking submit. It should take about 15 minutes to complete. Once you begin the survey please follow through until the end.

Thank you for your time and your invaluable input in my research. If should have any questions regarding the survey, please do not hesitate to call me at (334) 821-9060 or email me at [gambejs@auburn.edu](mailto:gambejs@auburn.edu).

Sincerely,

Jamie S. Gamber, MEd, ATC  
Doctoral Student  
Auburn University  
Educational Foundations, Leadership and Technologies