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Clinical experiences are integral to the education process in many professions. Professional socialization is one area of students' development enhanced by clinical experience. Professional socialization includes learning in the affective domain by experiencing moral, ethical and legal practice as well as developing confidence in students' clinical practice. This study examined the role of clinical experience for professional socialization in Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited athletic training education programs. This was done by examining entry-level athletic trainers' perceptions of the importance of four common clinical experiences in the development of selected affective domain educational competencies. These experiences were peer practice, approved clinical instructor (ACI) instruction, practice coverage and game coverage. The affective domain competencies were chosen because they included aspects of professional socialization such as role identity and moral ethical and legal practice of athletic training. A quantitative, researcher developed, web based survey was designed and used to collect perception data from newly certified athletic trainers who had graduated from a CAAHEP accredited athletic training education program. While all four common clinical experiences were reported as important to subject mastery of the competencies, ACI instruction and practice coverage were reported to be more important than both peer practice and game coverage. These results are important to athletic training educators as they try to develop

the best possible combination of classroom, laboratory and clinical experience to better prepare future generations of confident and successful practicing athletic trainers

CLINICAL EXPERIENCE'S ROLE IN PROFESSIONAL SOCIALIZATION AS PERCEIVED BY ENTRY-LEVEL ATHLETIC TRAINERS

by

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APPROVAL PAGE

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CHAPTER I

INTRODUCTION

Clinical experiences are vital to the education of professionals in the medical and allied health care professions. 1-3 In fact, many nursing and education students consider clinical experience to be the single most important aspect of their educational preparation. Exposing students to clinical experiences that include an infinite variety of patients and conditions may improve professional skills, 1, 2, 4, 5 integrate theory and practice, 1,2 increase critical thinking skills, 5 enhance self-efficacy, 1,6 socialize the student into the profession and develop a sense of altruism.¹ This exposure not only provides students with repeated opportunities to integrate theoretical and practical knowledge but it also helps students develop a sense of social responsibility and the importance of moral and ethical practice. Thus clinical experience allows students to continually integrate and reform knowledge to develop a personal professional competence.² This study examined the role of formal and informal clinical experience in the development of professional competence especially professional socialization. Professional socialization is the development of "knowledge, skills, values, roles and attitudes" pertaining to professional practice. Socialization was chosen as the focus because while students can develop competence in cognitive theories and even some psychomotor skills in a classroom, clinical experience is important for the development of role identity, critical thinking skills, and the affective domain.8

The NATA Education Council groups clinical experiences into two primary categories: clinical education and field experience. Clinical education is the formal learning, practicing and evaluation of clinical proficiencies in a classroom, lab or clinical setting under the supervision of an approved clinical instructor. This type of formal instruction is essential for the acquisition of knowledge that is central to the profession of athletic training. Athletic training laboratories and practicing or assessing clinical proficiencies are good opportunities to learn and master clinical skills. Field experience is the informal learning or practice of athletic training skills in a realistic situation under the supervision of a clinical instructor. These types of experiences such as providing athletic training services for an athletic team are important because the student is involved in the profession of athletic training. These clinical experiences are important to the education process because the students are not only learning and mastering clinical skills, but are also being socialized into the profession of athletic training. As the student is socialized into the profession of athletic training, they have the opportunity to develop competence in the affective domain of the NATA Education Council's educational competencies which comprise not only moral ethical and legal practice, but also role identity as an athletic trainer. This inclusion of professional socialization issues is why the affective domain competencies were chosen to represent professional socialization for the purposes of this study.

It is important to examine the role of clinical experience on student socialization because of the recent reforms in athletic training education. The reform process which included the move to accreditation by the Commission on Accreditation for Allied Health

Education Programs (CAAHEP) has elevated the quality of athletic training education and in turn increased the quality of entry-level athletic trainers graduating from these programs. Students achieve predetermined educational competencies and clinical proficiencies as a result of exposure to a structured education program consisting of classroom instruction, laboratory practice, one-on-one clinical education and supervised field experience. Additional research is needed to further clarify the role of clinical experiences in athletic training education. This knowledge will be useful for clinical coordinators to design the best possible combination of clinical experiences for athletic training students.

Statement of the Problem

The purpose of this study was to explore the importance of formal clinical education and informal field experience during entry-level education programs on the professional socialization of athletic trainers who graduated from CAAHEP-accredited education programs. Professional socialization was represented by selected NATA Athletic training affective domain education competencies which are required in all CAAHEP accredited athletic training education programs. The perceptions of entry-level certified athletic trainers who have recently completed a CAAHEP-accredited educational program were explored in this study.

Research Questions

1. Are formal clinical education experiences or informal field experiences perceived by entry-level athletic trainers to be more important for developing professional socialization?

Hypotheses

- A. Informal field experiences will be rated more important than formal clinical education experiences by entry-level athletic trainers for professional socialization.
- B. Informal field experiences will be ranked more important than formal clinical education experiences by entry-level athletic trainers for professional socialization.
- C. Practice coverage and game coverage will be rated more important than peer practice and ACI instruction by entry-level athletic trainers for professional socialization.
- D. Practice coverage and game coverage will be ranked more important than peer practice and ACI instruction by entry-level athletic trainers for professional socialization.
- 2. How are perceptions of entry-level athletic trainers regarding the importance of formal clinical education experiences and informal field experiences for professional socialization affected by:
 - a. the percentage of time spent in formal experiences during the education program?
 - b. the estimate of the overall quality of clinical supervision received?
 - c. when the field experiences began?

Hypotheses

A. There are differences in the rated perception of importance for clinical education and field experience based on the time spent in formal clinical experiences.

- B. There are differences in the ranked perception of importance for clinical education and field experience based on the time spent in formal clinical experiences.
- C. There are differences in the rated perception of importance for peer practice, ACI instruction, practice coverage and game coverage by entry-level athletic trainers for professional socialization based on the time spent in formal clinical education.
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Delimitations

- 1. All subjects had graduated from a CAAHEP accredited athletic training education program within the past three years.
- 2. All subjects were employed as athletic trainers in a recognized practice setting.

Assumptions/ Limitations

- 1. Subjects who responded to the survey represented the larger population of entry-level certified athletic trainers.
- Recent graduates of CAAHEP accredited entry-level athletic training education
 programs have developed competence in the NATA's Athletic Training Education
 Affective Competencies.
- 3. Entry-level athletic trainers remembered their clinical experiences and accurately recalled where specific competencies were learned and mastered.

4. Subjects were supervised by an approved clinical instructor during practice and game coverage experiences recalled during data collection.

Operational Definitions

- 1. Clinical education- learning, practicing, or being assessed on a clinical proficiency by an approved clinical instructor. Clinical education includes activities such as peer practice and one on one interaction with an ACI.
- 2. Field experience- unstructured learning or practice of athletic training skills in a real world setting under the supervision of a clinical instructor. This is an exposure to the daily activities of certified athletic trainers and other health care providers such as practice and game coverage.
- 3. Entry-level athletic trainer- a BOC certified athletic trainer who received certification between November 2002 and November 2003.
- 5. Professional socialization- development of "knowledge, skills, values, roles and attitudes" pertaining to professional practice.⁷
- Affective domain- (as defined by NATA Athletic Training Educational
 Competencies) includes aspects of role actualization and moral, ethical and legal practice.
- 7. Quality of supervision- An overall estimate of the usefulness of the clinical supervisors to student learning during the educational program.
- 8. Role model- An individual who unintentionally acts to change student professional behaviors. (145)

9. Mentor- an individual who intentionally acts by explanation or demonstration to improve the professional behavior of a student. (145,210) This definition was adapted from two qualitative investigations conducted in athletic training education.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review will address the following: the history of athletic training and specifically athletic training education, a brief explanation of outcome based theory, affective domain and professional socialization, and the importance of clinical experience in medical and allied health education especially as it pertains to the development of professional skills.

History of Athletic Training Education

Early athletic trainers learned by trial and error to develop their own concoctions, treatments, and dietary supplements to hasten recovery or enhance performance. SE Bilik, the father of modern athletic training, realized that the field would never gain respect if athletic trainers continued these practices. He believed that athletic trainers needed an education grounded in anatomical and scientific principles. So in 1916 he wrote "The Trainer's Bible" which was the first book devoted to the treatment of athletic injuries.

Though the education movement began at the turn of the century, formal college education for athletic trainers did not really start until the 1930s. As colleges realized coaches needed knowledge about the body and training for enhanced performance not just how to play their sport; they also realized athletic trainers needed a formal education.¹³ Many physical education programs included classes in the sciences, which

also served as prerequisites for physical therapy school. The athletic training profession did not have its own body of knowledge or coursework so most people wanting to become athletic trainers were encouraged to attend physical therapy school. ^{13, 14} These early students also began the tradition of working as an apprentice during their undergraduate career as a student athletic trainer. ¹³

After World War II a number of athletic conferences decided that communication would serve them better than secret concoctions and remedies and formed local associations. These local associations came together and met in 1950 in Kansas City, MO, for the first annual meeting of the National Athletic Trainers' Association (NATA). The mission statement for the new association was to "build and strengthen the profession of athletic training through the exchange of ideas, knowledge, and methods of athletic training." Two goals stated in that first year were the development of athletic training education programs at high schools and colleges, and to establish standards of performance. 11, 16

In 1955 William E. (Pinky) Newell was elected as Executive Secretary of the NATA. 14, 15 Newell was a forward thinker with lots of ideas and served until 1968.

Many of the accomplishments of the NATA during this time were a direct result of his hard work and dedication. Some of these accomplishments included starting a professional journal, writing a code of ethics 11, 15 gaining recognition by many organizations as a professional association, beginning formal education programs, requiring a certification exam, 15 facilitating a resolution by the American Medical Association's House of Delegates encouraging the incorporation of athletic trainers in all

sports programs,¹¹ and recognition by the American Medical Association as a professional association in 1967.^{14, 15, 17}

NATA Approved Athletic Training Education Programs

One of Newell's ideas was to create the Committee on Gaining Recognition. ¹⁴ The committee decided to enhance athletic training's image by focusing on athletic training education and certification. ¹⁴ The committee proposed the first curriculum model in 1959. ^{14, 18, 19} Two primary features were the inclusion of physical therapy prerequisites and an opportunity to gain a teaching certification. ¹⁴ Newell, also chair of the Committee on Gaining Recognition, appointed a subcommittee in December of 1968. Their charge was to study how many schools had athletic training education programs and whether these programs were adhering to the recommended curriculum. ²⁰ This committee also developed a procedure for colleges and universities to submit their education programs for NATA approval. ^{18, 20} Once the procedure was in place, the first athletic training education programs were approved in 1969. ^{14, 18-20} The first 4 approved undergraduate programs were at Indiana State University, Mankato State University, Lamar University, and University of New Mexico. The first graduate programs were approved in 1972 at Indiana State University and the University of Arizona. ¹⁴

The second focus of the Committee on Gaining Recognition was to ensure that all athletic trainers had a base level of competence. One of the ideas was a written and practical examination. It was hoped that the exam would help students design their own educational program and stimulate the development and growth of programs developed in colleges and universities.¹⁷ J. Lindsay McLean, first chair of the National Athletic

Trainers' Association Board of Certification (NATABOC)^{14, 21} wrote in 1969, "Such an examination would give our association a unity of purpose and direction at a time it is sorely needed." In June 1969 the procedures for certification of NATA members were presented to the NATA Board of Directors. The subjects of the first certification examination included "basic science, theory of athletic training, and practical application of athletic training." Initially there were five routes to become an Athletic Trainer, Certified (ATC). These routes included people who where already "actively engaged" in the profession, graduates of approved education programs, physical therapy graduates, apprentices, and special cases. Beginning in 2004 the only route to certification was graduation from a Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited education program.

In the 1970s athletic training began to truly develop its own identity. While it was still a viable option for athletic trainers to continue their education by attending physical therapy school it was no longer a necessity. Athletic training education programs grew and became more specific to athletic trainers. These changes led to new curriculum guidelines in the mid 1970s. These guidelines listed behavioral objectives for each of the 11 required classes.¹⁴

As the 1980s progressed the athletic training profession continued to grow and strengthen. People were starting to recognize athletic trainers as allied health care professionals and therefore expected more of them.¹⁴ Many state athletic training associations began lobbying for licensure.²¹ The 1970s guidelines were modified in 1983 by the Professional Education Committee following the 1982 role delineation study by

the NATABOC. This document became the first edition of Competencies in Athletic Training. Because of the scope and depth of information in the new competencies, a more formal education process was needed. A resolution was passed by the NATA calling for all approved programs to implement an athletic training major. ^{14, 18} All NATA approved programs must have developed either a major or its equivalent before 1990. An equivalent was defined as a program of study which met the guidelines for an athletic training program and contained at least the minimum number of credit hours that constituted a major at the individual institution. ¹⁴ In order to assist athletic training programs in this transition the Professional Education Committee (PEC) created the Guidelines for Development and Implementation of NATA Approved Undergraduate Athletic Training Education Programs in 1983. This document represented a major change in athletic training curriculums as instead of requiring specific courses, subject matter areas were required. The second major change was the beginning of an outcomebased model as the Competencies in Athletic Training document was integrated into the latest curriculum revision.

External Accreditation

Probably one of the largest milestones in athletic training history came on June 22, 1990 when the American Medical Association (AMA) designated athletic training as an allied health care profession. ¹⁴ This recognition was important because it was a precursor to external accreditation. Accreditation by the AMA Committee on Allied Health Education (CAHEA) was sought because of the "perceived benefits of standardized education program requirements and external peer review by a highly

regarded, specialized accreditation agency." As part of the new accreditation process the Professional Education Committee met with CAHEA to lay the groundwork for the Joint Review Committee on Education Programs in Athletic Training (JRC-AT). The JRC-AT was created as an interdisciplinary group responsible for reviewing athletic training education programs wishing to be accredited by CAHEA. One of their first tasks was to develop standards and guidelines for accreditation. Fortunately they were able to revise the Professional Education Committee's 1983 *Guidelines* as the framework of the new document. The Competencies were also adopted to accompany the Standards and Guidelines. This document became *Essentials and Guidelines for an Accredited Education Program for the Athletic Trainer*. Once this document was in place in 1993, the PEC stopped "approval" of athletic training education programs. CAHEA took over accreditation. Barry University and High Point University became the initial athletic training programs to be accredited by an outside agency.

In 1992 CAHEA was disbanded and replaced by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), an independent accreditation body for allied health care education programs. With this transition the Essentials and Guidelines became Standards and Guidelines, but the process remained essentially the same. In 1993 some additional government regulatory changes occurred, and CAAHEP became a recognized accreditation agency of the Council on Higher Education Accreditation (CHEA). CHEA recognizes many different accreditation agencies including nursing, physical therapy and the regional accrediting bodies for all colleges and schools i.e. Southern Association of Colleges and Schools (SACS).²²

Dissolution of the Internship Route to Certification

The most recent effort to elevate athletic training to the same level as other allied health care professions was the standardization of education programs. Since the initiation of the certification exam in 1970 there had been multiple routes to certification. Prior to January 2004 there were two, one was graduation from a CAAHEP accredited education program and the other was completion of the internship route which included basic courses and 1500 clinical hours. Because of a lack of standardization of the educational process the internship route was perceived by many athletic trainers as retarding the profession's development, especially in terms of gaining respect by other allied health care professionals and the public.

To investigate how to improve and standardize athletic training education the Education Task Force was created in 1994. 14, 23 The Task Force forwarded 18 recommendations regarding education reform to the NATA Board of Directors in 1996, which were accepted. Two primary points were requiring that all certification exam candidates be graduates of a CAAHEP accredited program and reorganization of the clinical education experience. 14, 23, 24 The NATA Board of Directors immediately created the Education Council to successfully implement these recommendations.

One aspect of the reorganization of clinical education was the development of the role for the clinical instructor. Since most athletic trainers did not have a background in education some standardization was needed. In 2001, the approved clinical instructor (ACI) and clinical instructor educator (CIE) concepts were developed. Each athletic training education program has a CIE who has been qualified by the Education Council to

train the program's own ACIs. 9, 25 This training is intended to provide the ACIs with some basic teaching and learning theory as well as provide a detailed background into the specific clinical education program designed by the institution whose students they will be teaching. This training session is important in the quest for a more structured and standardized clinical education experience. No longer are athletic training students just a cheap work force used to fill water bottles and tape ankles. They are students learning to integrate the theories and skills learned in the classroom in a clinical setting.

Shift from Hours to an Outcome Based Curriculum

Another component to the revised clinical education experience was the revision of the Educational Competencies, which went into effect in 2001. The new edition of these competencies included clinical proficiencies, which describe a set of measurable objectives of which the student must show entry-level mastery.²³ These proficiencies provide a structure to clinical education and give the student a framework for learning. The proficiencies have replaced the clinical hours requirement to sit for the BOC certification exam. There has also been an increase in the clinical education structure by CAAHEP as evidenced in the new standards and guidelines for accreditation.²³ This continued emphasis on outcome based clinical education programs is the way of the future in athletic training education.

Outcome Based Learning

Outcome based education shifts the focus from a teaching focus to a learning focus. The most important questions relate to what the final product should be and the skills students should be able to perform upon graduation. While these may be goals of

many programs, in outcome-based education they are the most important issues. First, the answer is carefully thought out and communicated to the faculty, students and other stakeholders in the program. Second, a commitment to the answer is needed because all curriculum decisions are made according to the question.²⁶ Outcome based education has some distinct advantages; it increases relevance of subject matter for the student and provides a very clear framework for a curriculum, yet still allows for flexibility and faculty autonomy. Another advantage is the accountability and student centered nature of the program. The student knows exactly what the outcomes are and is responsible for mastering them. They know exactly where they stand in the program and can devise a plan to succeed. 26, 27 This type of model has also been described as a good way to structure clinical education without losing the inherent difference in each placement site. Again by focusing on the outcomes each setting can facilitate the students' learning with different experiences and strategies. Athletic training students achieve predetermined educational competencies and clinical proficiencies as a result of exposure to a structured education program consisting of classroom instruction, laboratory practice, one-on-one clinical education and supervised field experience.

Joint Review Committee on Education Programs in Athletic Training Accreditation

As athletic training continued to mature and reinforce itself as an allied health

profession in the 1990s and 2000s there were more changes to come. Having recently

finished another major education reform the JRC-AT and NATA examined the benefits

and risks of continuing to fall under CAAHEP's accreditation umbrella. In early 2003

the JRC-AT decided to leave CAAHEP and become the accrediting body for athletic

training education programs.²⁸ The JRC-AT will pursue recognition as an accreditation agency of the Council on Higher Education Accreditation (CHEA). The JRC-AT is currently revising the standards and guidelines for accreditation.²⁸ JRC-AT will withdraw from CAAHEP in Spring of 2006. Beginning in the fall o./,f 2006 athletic training education programs will be accredited by Commission on the Accreditation of Athletic Training Education (CAATE).²⁹

Athletic Training Clinical Education Research

As athletic training educators are developing education programs focusing on student needs and trying to determine how to best prepare future certified athletic trainers different areas of focus have developed. Athletic training educational researchers have examined clinical supervisors³⁰⁻³², the students³³ and the experience³⁴⁻³⁶ itself as they try to determine what the students need to learn and the best teaching methods to convey these objectives.

Supervisors

Clinical supervisors are the backbone of a quality experience for athletic training students. Supervisors' behaviors are extremely important in the development of athletic training students.³¹ Mentoring, professional acceptance, nurturing, modeling³¹ leadership style and years of experience³³ are a few of the areas in which a clinical instructor can influence athletic training students.

In a critical incident study, Curtis, Helion, and Dohmson³¹ identified categories of important behaviors by clinical instructors as reported by students in four accredited athletic training education programs. Students were asked to report behaviors that were

useful as well as detrimental to their learning. Mentoring, professional acceptance, nurturing and modeling were identified from the data, with mentoring being the most frequent.³¹ These data are also supported by Pitney and Ehlers³⁷ who interviewed 16 athletic training students to examine mentoring of athletic training students. Using a grounded theory approach they determined that there are prerequisites for a mentoring relationship which included the mentor being accessible and approachable as well as the student's own initiative. Interpersonal foundations were also important such as trust, similar values and a personal relationship. The final prerequisite for a mentoring relationship was the educational dimension. This included the mentor being a good facilitator of learning, designing individual experiences for students and encouraging the development of a professional perspective by the student.

Leadership style is also important. Clinical supervisors serve as mentors and models by passing along their leadership style to their students, and effective leadership is essential to motivating the students to reach their highest potential as students and future professionals. Meyer³² proposed situational leadership theory as a model for athletic training clinical supervisors to adopt. Situational leadership theory changes according to the situation and the students' characteristics. There are four different substyles (telling, coaching, participating, and delegating) that the supervisor can choose depending on both the situation and the student. The supervisor will tell a first year student very clearly what to do and how to do it. This style is suitable for that student, but a senior student with more knowledge and skills requires more responsibility to continue to develop into an entry-level professional. The senior would make and execute

a decision with supervision. This theory can also be modified according to situation. A senior may be told what to do if the situation requires it. By taking the level of the student and situation into account the supervisor can tailor the response to maximize student performance.

Since experience is essential for an athletic training student to develop into a competent, practicing professional, does the same hold true for a clinical instructor? Stemmons and Gangstead³³ say yes. They reported a decrease in athletic training student behaviors while being supervised by novice athletic trainers (defined as <1 year experience). They concluded that a lack of an educational background and teaching experience may have caused this decrease. Novice clinical instructors lack the background to provide a student-centered environment for the athletic training student. Their conclusions were to provide all clinical instructors with training, and to encourage students to take an active role in their own education. Also, program directors and clinical coordinators need to be sure all clinical instructors, especially novice clinical instructors are effective.³³

Since the behaviors of clinical instructors are so important to the growth and development of athletic training students, the level of supervision students are receiving is also very important. Put simply, clinical instructors cannot be mentors, leaders and teachers if they are absent from the clinical environment. Weidner and Pipkin³⁰ examined clinical supervision of athletic training students at 261 NCAA member institutions. They examined the amount of time students spent directly supervised and unsupervised, in what types of situations students were allowed to be unsupervised, and

what types of activities these unsupervised students were allowed to perform. The results were problematic yet not surprising. Seniors spend more time unsupervised than freshman, which was expected as seniors have more knowledge and skill proficiency. Students were also performing duties beyond the role of a first responder including using modalities and directing rehabilitation while not supervised. These activities are troublesome both from a state practice act view and from a clinical education view. Currently, 39 states regulate the practice of athletic training.³⁸ In these states it is illegal for anyone to perform the duties of an athletic trainer without being recognized by that state. From an educational standpoint, students require clinical instructors to exhibit a wide variety of behaviors to facilitate student development. The instructor cannot facilitate these behaviors if not present to supervise the student. A positive trend was that students in accredited or candidacy athletic training education programs were more likely to be first-responder trained and less likely to be unsupervised. NCAA division I institutions are more likely to have students practicing unsupervised.³⁰ It has been concluded that athletic training students are just that -students, and not a source of free labor to an understaffed athletic department³⁰. Clinical instructors need to be aware of how frequently students are left unsupervised and take steps to ensure athletic training students are receiving the amount and quality of clinical supervision needed.³⁰ Experiences

Most of the focus of research has been on the instructor and not the experience itself. Two studies have examined the clinical experience of athletic training students.³⁴, The first was a comparison between total number of hours, sport assignments and

other demographic variables to the passing rate on the NATABOC entry-level certification exam. ³⁶ While some variables affected certain sections of the exam, for example (e.g., older candidates scored higher on the practical portion of the exam), the total number of clinical hours was not related to a higher score or an increased passing rate for the exam in general. Particular sports were also examined to determine whether experience with a particular sport corresponded to a higher passing rate. Football anecdotally has been considered very important to an athletic training student's learning. However, students who worked with football did not have a higher exam passing rate than those students who did not have the opportunity to work with a football team. Sammarone-Turocy et al³⁶ agree with other athletic training educators that we should focus on providing quality experiences rather than a set quantity of experience. Students should be given structured experiences that require them to apply the knowledge and skills learned.

The second study was an observational study of the quality of experience athletic training students are receiving.³⁴ This was accomplished by video taping athletic training students in the clinical setting and using a behavioral analysis system to analyze the tapes. The tapes were analyzed to determine what athletic training students are doing during their experiences. Time was categorized into four sections: Instructional time, clinical time, managerial time and unengaged time. The tapes were then coded according to these categories. The amount of time in each category was compared to class standing and sport assignment. The 20 athletic training students in this study spent 59% of their clinical education time unengaged which included waiting for athletes or ACIs, and

socializing. Only 30% of the time was spent in an active learning mode with the final 11% being managerial in nature. No indication was given where time spent observing practice watching for injuries was designated. Senior students spent significantly more time engaged in clinical behavior. This is not surprising since senior students have mastered a greater number of skills they should be given more responsibility during their placements. Senior students also spent much less time unengaged and presumably had also become more comfortable in their role, were more confident in their abilities and therefore participated more frequently. The surprise though was that beginning and intermediate students were not spending more time in an instructional mode. Clinical educators need to be working with these students to learn and practice the knowledge and skills needed to become a confident and role socialized senior and eventually entry-level athletic trainer. Also interesting was that students assigned to sports classified as upper extremity were more likely to be unengaged than students assigned to a mixed or lower extremity sport. These results may have been affected by the number of teams in season or the classification made by the authors, yet they do reflect a need for variation in the students' placements. If upper extremity sports inherently have more unengaged time in the placement then students need to be exposed to a variety of upper, lower and mixed assignments. Another limitation of this study was the mere presence of the video camera. Students may have been less likely to perform skills because of the presence of the camera. Though this study may have had limitations, it is important to have a benchmark for student time on task in order to maximize student engagement while in the clinical setting. These data can be used by athletic training educators to develop strategies to

keep students engaged and on task during clinical placements. Athletic training students are in the clinical setting for a limited time and educators need to make sure that the engaged time is maximized.³³

The final study examining student clinical experiences also examined the amount of active learning time students are engaged in during their clinical field experiences.³⁹ This study is very similar to the previous one as it was conducted by a similar group of authors. This examination used student self reporting for one typical day to determine how much time was spent in instructional time, clinical time, managerial time, unengaged time and waiting time. Active learning time (ALT) was calculated as the sum of clinical time and instructional time. The percentage of ALT was determined by dividing ALT by the total opportunity time. These data were than compared using a number of variables including length of experience, Academic program standing, gender, season, NCAA level, clinical assignment, and clinical setting. They reported students were in ALT 51% of the time and unengaged 17%. Of the demographic factors clinical setting revealed significant differences with students in the clinical/industrial/corporate setting engaged in clinical time as both students in the college and high school setting. These students also spent less time waiting. This may be related to time spent observing practices counting as waiting time. Student s in a mixed extremity assignment also spent more time in ALT. This may have been related to the inclusion students in the clinical/ industrial/ corporate setting. Gender, season and NCAA level did result in some differences but because of the number of variables included may have had more to do with the type of students in each program. Over all it was concluded that because clinical

experience is extremely important to athletic training education and educators should closely examine how students are engaged in learning while at clinical field-experience sites.³⁹

Importance of Fieldwork in Other Allied Health Professions Education

The importance of clinical experience has been well documented in medicine and other allied health professions. In fact, many nursing and education students consider clinical experience to be the single most important aspect of their educational preparation¹. Teacher education, nursing, ¹ medicine, ⁴ clinical laboratory technician³ and occupational therapy⁴⁰ are just a few examples of professional programs that require clinical experiences as part of the curriculum. However, no one can put his or her finger on exactly what role it plays. By exposing students to an infinite variety of patients and conditions, clinical experience may improve professional skills, ^{1, 2, 4, 5} facilitate integration of theory and practice, 1,2 increase critical thinking skills, 5 enhance selfefficacy, 1, 6 socialize the student into the profession and develop a sense of altruism. 1 This exposure not only provides students with repeated opportunities to integrate theoretical and practical knowledge but it also helps students develop a sense of social responsibility and the importance of moral and ethical practice. Thus clinical experience is useful in helping students by continually integrating and reforming knowledge to develop a personal professional competence.²

Affective Domain

The affective domain is commonly understood to include the emotional aspects of learning including confidence, motivation, attitudes, values, anxiety, satisfaction,

opinions, beliefs and personal interests.⁴¹ Student development in components of the affective domain is inherent in developing professional competence. Epstein and Hundert⁴² include emotions, values and reflections in their definition of professional competence. The framework for their new definition proposed a three component theory: Cognitive function, relational function, and affective/moral function. The affective/moral function includes "willingness, patience, and emotional awareness to use these skills judiciously." Another example of the affective domain in professional education is the professional code of ethics. Reilly⁴³ explains the code of ethics as an "instrument of accountability." These codes provide the consumer with documentation of the values of a profession. Therefore developing the affective domain is vital to the process of becoming a competent professional.^{42, 43}

Emotions, values, attitudes and motivations are complex and difficult to assess. The affective domain is found in almost every learning situation yet is rarely the focus of the lesson. Perhaps this lack of emphasis is because of society's views regarding values education. Many people feel values education should be left to families and churches and not schools. There are other possible explanations for this lack of emphasis as well. Many educators find evaluating students' affective development difficult. In medical education Howe discusses another possibility, the "hidden curriculum," which is not designed or specified yet embedded in each learning environment. It is assumed by many educators that the 'hidden curriculum' had been learned just by exposure.

Howe⁴⁵ disagrees with learning by osmosis. When learning goals are not specified they are not always met. Different students and students in different clinical settings are exposed to varied attitudes and values. Students are intelligent enough to learn to act as appropriate for each setting. Because they are just acting, and not really learning the appropriate attitudes and values they fail to maintain them when moved to a different environment. Medical education should be teaching attitudes, yet they need to be removed from the 'hidden curriculum' and be formalized⁴⁵.

There are three needed elements for development in the affective domain.

Experiences are needed to expose the student to a variety of people and situations so that different value systems are encountered. Furthermore, the student must be self engaged themselves during the experience and not just be an observer. This emersion into the experience leads to the next element necessary for affective domain development, critical thinking. The student must process the experience and think critically about the values and emotions that were observed by others and expressed by the student. Students make judgments and decisions based not just on facts presented but also according to aspects of the affective domain such as values, beliefs, attitudes and emotions. 42,43

There is reason to believe that the affective domain is not well developed by classroom work alone, but require clinical experiences in which students are provided an avenue to observe moral and ethical practices modeled by a mentor. Beyond this, clinical experience allows the student to actually engage in such behaviors. Modeling is an excellent teaching technique for encouraging development in the affective domain, 43-45 though it is important to ensure that students are not just imitating the instructor, but

processing why these behaviors are important or whether they fit into the student's value set. Clinical experience is an excellent opportunity for students to develop in the affective domain because it is an opportunity to be immersed in a learning culture that models the attitudes and values sought, encourages mentoring by clinical practitioners, provides an opportunity to learn from life experiences by interacting with patients, and can be an excellent situation to promote self-reflection.⁴⁵

The affective domain can be difficult to evaluate quantitatively and few quality instruments exist. 42,43,45 Clinical experience is important for evaluation of the affective domain as well because "the values that we hold are reflected in the behaviors that we demonstrate." Spence, Hicock and Wiggers 44 agree that direct observation during clinical rotations is the most accepted evaluation method for affective domain development. Epstein and Hundert 42 have another take on evaluating the affective domain. They suggest that patients and peers may be the most appropriate people to assess a student's affective development.

Krathwohl, Bloom, and Masia⁴⁷ developed a taxonomy in an attempt to simplify the affective domain. They designed a continuum modeled after the cognitive domain previously created. Categories range from merely being aware of a stimulus all the way to incorporating new behavior into a revised philosophy. The basis for the new taxonomy was internalization. Internalization was defined in 1958 by English and English as "incorporating something within the mind or body; adopting as one's own the ideas, practices, standards, or values of another person or society." As cited in Krathwohl, Bloom and Masia. By using this definition of internalization there is a lot of similarity

between socialization and the affective domain.⁴⁷ The primary difference being socialization's emphasis on conformity versus the affective domain's acceptance of both conformity and individualism.

Professional Socialization

Professional socialization is yet another important role of clinical experience. Socialization has been defined as "the process by which persons acquire the knowledge, skill, and dispositions that make them more or less successful members of society." ⁴⁸ Therefore professional socialization is the process to achieve the development of competence in the cognitive, psychomotor, and affective competence required by one's chosen profession. Notice the emphasis is the development of professional competence not just the mastery of either cognitive theories or psychomotor skills, but all the facets of becoming a successful professional which includes the affective domain as well. Although the final product is very important, socialization is really focusing on how the student reaches this destination. The story is really in the journey.

There are different theories of professional socialization. Some would argue for a dialectical struggle as the student is constantly reexamining the differences between their ideals and the real world practices. ⁴⁹ Others argue for an internalization of professional mores. ⁴⁸ The model that seems the most complete and will be discussed here is a developmental model. Within this developmental model first described by Thornton and Nardi⁵⁰ each of the others has a place as well. The dialectical struggle and internalization of the professions behaviors and expectations is seen through out each stage of Thornton and Nardi's model. Their emphasis is on this developmental process in which students

are exposed to both a set of generalized experiences and individual experiences⁵⁰ As students move through this developmental process they are met with three core elements of socialization: knowledge acquisition, investment, and involvement. Students work within these elements in different ways as they progress through the stages of socialization, which are anticipatory, formal, informal, and personal.

Finally the role of clinical experience in the development of professional socialization will be discussed. Clinical experiences must be designed to ensure that students are exposed to both individual and group experiences needed to develop a professional identity which is the hallmark of professional socialization.⁴⁸

Dialectical Perspective

A major aspect of professional socialization is a personal resolution of the discrepancy between ideal practice as experienced in the classroom or laboratory and the reality of the imperfect real world. Resolution of this discrepancy is essential to the student's development. This appears to be a molding process in which students' conceptions of a professional are pulled and stretched in different directions by many different groups, including their own preconceptions, peers, family, institutions, professional organizations and experiences. Over time this internal twisting and pulling molds students' professional identities into that of a novice professional. The molding process can be considered a dialectic process. A dialectic is the struggle within a person to examine and think about differing views, conceptions and attitudes in order to synthesize a new personal view. When students struggle with the discrepancy between their ideal perceptions of clinical practice and the real world of clinical practice, not only

are their perceptions changed but the varied factors, which influence them, are changed in some way as well.⁵¹ In other words, as the student changes to fit the expected role, they also change the expected role to fit themselves.⁵⁰ This struggle is evident within each facet of professional socialization and is very much a part of the developmental process.

Developmental Model

Thornton and Nardi ⁵⁰ are among the first to recognize professional socialization as a developmental process. Their model includes both sociological and psychological parameters as an individual learns and accepts a new role. They emphasize the importance of the interaction between the individual and the role as the individual is changed to fit the role and in the later stages how the role is modified to fit the individual. They break professional socialization into four stages: anticipatory, formal, informal, and personal.

Stages of Socialization

When conceptualizing professional socialization as a developmental process there are certain stages the student progresses through as they develop the three core elements. The first stage is anticipatory socialization. Each student has preconceived thoughts about the profession of interest gained from the news media, personal observation and interaction with a professional and interaction with third parties who have interacted with a professional. With theses ideas the student pursues or is recruited into a professional education program. Early on the student becomes aware of the expectations of being a professional in the chosen field. These include cognitive theories, psychomotor skills, ethical practice and expected behaviors.⁴⁸ This awareness provides an early opportunity

for growth as the student enters a dialectical struggle to change and mold the preconceived ideas with the new information.⁴⁹

From a practical sense these students focus on learning rules and procedures.

They enjoy using professional jargon and are anxious to comply with faculty and upperclassman instructions. They do not yet have the knowledge or skill to take initiative, but are anxious to learn and fit in. They are like a sponge ready to soak up new information and behaviors.⁴⁸

As a student becomes comfortable with the expectations of the chosen profession they apply and are accepted into the education program and move into the formal socialization stage.

Formal Socialization.

As the student becomes comfortable with these initial expectations of the chosen profession they make a decision to apply to the education program. Once accepted into the program the move into the formal stage of professional socialization. The primary source of information about professional expectations changes as they are now insiders. Expectations are learned primarily from role incumbents.⁵⁰ Classroom learning is the main source of learning cognitive theories and practical skills necessary to be a successful practicing professional. These expectations are generally clear, explicit and stated directly. These expectations tend to be idealistic because they are important to the function of the profession. They are the "must" do behaviors.⁵⁰ Another source of expectations is observation. Seeing and then reproducing expectations is an important component of professional preparation.⁴⁸

As the student is successful in the classroom and clinical setting they are given increased responsibility. As these responsibilities increase the student feels confirmed in their decisions and as a future professional.⁴⁸ Because of this desire to fit in and be successful and because the student is still getting used to the new role the emphasis is on knowledge and skills. Attitudes will be observed and imitated, but it is more to fit in as a member of the group rather than a true reaction to the situation.⁵⁰

Informal Socialization

Once comfortable with the theories and skills needed to fulfill the chosen role the student moves into the informal stage of professional socialization. In this stage the student is immersed into the professional culture. The primary source of expectations is now peers and practicing professionals. Because the student has already mastered the theories and skills needed to be successful the focus here is on attitudes and other grey areas of professional practice. The student is exposed to the adaptability inherent in the professional role while still being able to meet expectations. They begin to mold and change their personal role to fit both the expectations and their own personality.

Personal Socialization

The final stage of professional socialization is personal. This stage is characterized by the formation of an individual professional identity. Students continue to adapt the professional role to fit their own personalities. This is done by modifying the role by adding individual expectations. By adding these expectations students are "imposing their own style" upon the role. Because of the modification of expectations the dissention between individual and role is reduced. By the personal stage

there is a connection between the individual and the role to produce a "mutual transformation." Often the personal stage is encountered after students have graduated and have become practicing professionals.⁴⁸

Core Elements

The socialization process incorporates three core elements: knowledge acquisition, investment and involvement. 48 Knowledge acquisition is important because all professions have a core body of knowledge that must be acquired for successful practice. Part of this knowledge acquisition involves learning affective components of practice and the art of self-reflection. With this information, students can focus on changing behaviors and increasing confidence. As students learn the theories and constructs of the profession and the ability to self-reflect, they can begin to assume the role of a professional. As students continue to grow into this role, they develop a professional identity, which is vital to the socialization process. 48

Students must also make a personal investment to the profession. They need to commit time and energy to learning more about their professional role. Faculty mentoring becomes important in this element because students learn how to act like a successful professional from these mentors. The mentor passes along not just theories and skills, but also the values and mores of the profession. The greater the personal investment by students the more they will learn and feel compelled to follow these values. The level of professional socialization achieved by students is related to the level of commitment they feel toward the profession.

Involvement in the profession is also important. By interacting with practicing professionals and students at other levels of preparation, students experience first hand the philosophy and attitudes of the profession. It also provides students the opportunity to actually assume the role of a professional. This participation allows students to internalize the attitudes and philosophy of the profession and make them their own. This internalization and personal modification of the tenets of the profession lead to role identification. Students actually begin to view themselves as professionals. Although the core elements of professional socialization are discussed individually here, they are truly interrelated.⁴⁸

Clinical Experience

An important aspect of professional competence is the growth of a professional identity. This identity is formed as the student is socialized into a profession.

Developing professional skills are as important as developing theoretical knowledge and psychomotor skills. ⁵² Clinical experience aids socialization by including the student in the realm of professional practice. For example, many new nursing graduates are concerned with their lack of ability to actually fulfill the role of a nurse on a ward. They are not as concerned with a lack of theoretical or practical knowledge, but more the details of working a shift. Dunn et al¹ describes role integration as a major theme while examining benefits of field experience in nursing, adult education and teacher education programs. By assuming the role of an important and contributing member of the professional team the student integrates the theories, skills and attitudes learned in the classroom in a real practice setting. ¹ Clinical experience is one opportunity to see this

professional socialization in action by providing students with opportunities to acquire and practice new knowledge, increase their sense of commitment to the profession and get involved in a professional role.

Integration of Knowledge

A competent professional is said to have not just theoretical knowledge, but also professional knowledge. Professional knowledge is the what, where, how and why to perform one's role as a professional. Professional knowledge is broken down into a number of components: Tacit, process, prepositional, personal, and moral knowledge.⁵ Tacit knowledge is knowing how do respond to a situation but unable to explain the thought process behind the response. It is using patterns and perceptions to draw a conclusion.⁴² With experience a practitioner develops shortcuts instead of processing information step by step as a novice does. The expert can't explain how or why the short cut is followed, they just know it. Personal knowledge is somewhat similar in that it is also primarily gained through experience. It may be thought of as following a hunch based on an impression. It is important to allow personal knowledge to act only as an insight to stimulate further thought and information gathering, not the end result. ^{5, 42}

Many times tacit or personal knowledge provides the impetus for gathering information and then using their propositional knowledge. Propositional knowledge is simply knowing something no matter whether it came from a memory, or a public or private source.⁵

Professionals process all these types of knowledge using thinking and decision making skills to determine the best course of action. This use of previous knowledge is

process knowledge.⁵ The last component of professional knowledge is moral principles.

These principles serve as an overarching guide for professional practice.

Clinical experience is vital for the development of professional knowledge and professional competence. Clinical experience allows the students to develop each of the four components of professional knowledge and provide a detailed context in which to learn and build this framework for a successful clinical practice.

Another aspect of clinical experience is integration of knowledge. It is not only important for students to have a good foundation of knowledge but to be able to adapt and use the knowledge in clinical practice as a practicing professional. Professional education should not remove knowledge from its context and teach theories and skills in isolation. The student should instead be encouraged to remain flexible in their application of knowledge within a number of different and complex contexts. This integration is key to a professional's competence When a practitioner can not just espouse factual knowledge, but actually process information, choose the appropriate skills, perform them, and interpret the results then they are a competent professional. 1, 5, 42

Thinking Skills

Another way to describe this integration of knowledge is the development of thinking skills. Thinking skills such as critical thinking, problem solving and clinical reasoning are all essential components of a competent professional.^{5,54} These thinking skills are best developed in context.⁵ The context provides not only real world application of knowledge but it is also a powerful student motivator because of the perceived relevance to future practice.⁵

There is empirical evidence to support these theories of using clinical experience as a teaching method for thinking skills in occupational therapy. Sladyk and Scheckly⁵⁴ reported a significant increase in clinical reasoning scores following a 12 week fieldwork experience. Upon closer analysis of the data 70% of the subjects greatly improved their clinical reasoning scores. The authors also examined other variables including types of learning activities during the experience and number of learning activities. Examples of these activities included seeing similar patients, journaling, case studies, supervisor behaviors, etc. There were no differences reported for either variable.

Peer Learning in Clinical Experience

Peer practice is commonly accepted to involve individuals working collaboratively to enhance performance. Peer learning is thought to improve student reflection, promote a deeper understanding of cognitive theories, ⁵⁵⁻⁵⁷ assist students in applying theory to clinical practice, ⁵⁶⁻⁵⁸ problem solving ⁵⁶⁻⁵⁸ and self-direction. ⁵⁷ These concepts are important to the development of an independent practitioner. Peer learning is primarily used to allow students to work together to share experiences and learn and grow from each other. Most research in peer learning and clinical education discusses developing a reflective practitioner who can transfer knowledge from one situation to another by virtue of the deeper understanding of theoretical knowledge gained by peer learning practices. ⁵⁵⁻⁵⁸ From a professional development standpoint, peer learning can be important as it provides opportunity for the student to practice being a colleague. ^{57, 58} There is limited literature which indicates this practice helps the student develop a sense of professional identity. ⁵⁷⁻⁵⁹

Early Field Experiences

There is also debate in other professional fields whether early field experiences are beneficial or not. Secrest, Norwood and Keatley ⁵²concluded that early field experience can enhance students development of professional skills and socialization into nursing. The key is to structure the experience to ensure the students feel like they belong to the profession, know how to care for the person and feel affirmed in their decisions and career choices. If the student is put into situations that isolate the student from the profession or are made to feel inadequate to accept the required role for the experience, then the field experience will decrease professional skills. ⁵²

Duquette reported conflicting perceptions of students in highly field based education programs for teachers. ⁶⁰ Elementary education students actually perceived a need for more classes especially in education theory and professional knowledge base to become better teachers. Secondary education students enrolled in the same program disagreed. They indicated the need for field experiences. However, it must be remembered that the secondary education students had taken more theory based courses in their area of concentration. Duquette concluded that while fieldwork is important to the education of teachers, educational theory is also essential to the development of a good novice teacher and should not be forgotten⁶⁰. A balance between classroom work and field experience needs to be reached. More and earlier field experience may not be the answer.

Stress levels are another aspect of field experience to keep in mind. In nursing education, initial clinical experiences can be very stressful. While Admi is not suggesting eliminating them from nursing education programs she does illustrate that

beginning nursing students experience very different stresses than more experienced nurses. These stresses need to be managed by the student before learning and caring for patients can be accomplished. Some of these stresses were related to a lack of background knowledge and experience⁶¹. These conflicts between the benefits and detriments to early field experiences are also likely to affect athletic training students' perceptions of clinical experience.

Summary

Athletic training is still a relatively young profession as evidenced by its short history. The leaders of the profession have brought athletic training from such a lowly beginning to its current level of respect largely through education. It is important to continue this growth and development by ensuring that future generations of athletic training students receive the best possible education. Athletic training educators are conducting research into a number of areas of clinical experience but there is not enough information as of yet to completely define the role of clinical experience as part of a well balanced education program. One area that has not been explored is the role of clinical experience in the development of the affective domain and another closely related topic professional socialization. Other allied health professions educators have examined clinical experience as a method to develop not only the affective domain and socialize students into the chosen profession but also as a good way to develop problem solving and thinking skills. This research is important for athletic training educators to examine and build upon to develop a better understanding of the role clinical experience can play in the development of these traits in athletic training students.

CHAPTER III

METHODS

This study was designed using a descriptive methodology. Reported data described entry-level athletic trainers' perceptions of certain aspects of their education program. These methods were chosen as a first step in defining the role of clinical experience as part of an entry-level athletic training education program. Subjects were asked to rate the importance of clinical experience in their mastery of selected educational competencies. These data were then used to describe the perceived importance of different clinical experiences to students' development of competence. Survey methods were chosen because surveys provide an idea of what subjects think rather than trying to measure a behavior. Because the focus of this study was perceptions, a survey was an appropriate tool.

Survey Development

The researcher developed the survey using a representative sample of the affective domain educational competencies written by the NATA Education Council. Appendix A includes a list of all affective domain competencies as defined by the Education Council. This sample was chosen in consultation with a group of athletic training educators (n=4) with at least five years of teaching experience. The educators were chosen by convenience, and included program directors, clinical coordinators and ATEP faculty members. The group was given a copy of the affective educational competencies for each

of the following practice areas: risk management and injury prevention, pathology of injuries and illnesses, assessment and evaluation, acute care of injuries and illnesses, pharmacology, therapeutic modalities, therapeutic exercise, general medical conditions, nutritional aspects, psychosocial intervention and referral, health care administration, and professional development and responsibilities. They were asked to rank the competencies in order of importance (1=most important) to the practice of athletic training. Appendix B contains a copy of the letter and the survey that was sent to the educators. The three competencies in each practice domain ranked as the most important (lowest score) as determined by this group formed the content of the survey. The ranked scores for each competency are included in Appendix C.

The framework of the survey included definitions and examples of clinical education and field experience. Pilot subjects were asked to rate the importance of clinical education and field experience in their development of competence in the selected competencies using a Likert scale from 1=not important to 5=extremely important. A short demographic section followed to allow the investigator to examine whether the amount of time spent in each type of experience, quality of supervision, or early or late initiation of experiences affected the ratings.

Validity and Reliability

Face and content validity of the survey instrument were determined by the same group of athletic training educators described above to insure an accurate representation of each practice domain. Face validity was assessed by a group of athletic training students (N=5) during their last semester of undergraduate coursework. These students

were asked to carefully read and complete the survey while commenting on the directions, format and ease of completing the survey. A focus group interview was used for data collection. The format of the survey was modified using these data. Reliability of the instrument was assessed using a pilot sample of entry-level athletic trainers who graduated from Elon University. These alumni met all of the inclusion criteria to be used in the study, and Institutional Review Board approval was granted (File # 023316) before pilot testing began. Appendix D contains the instrument used during this round of pilot testing. Subjects followed the same procedure that was used for final data collection. One month after completing the survey subjects were asked to complete the survey a second time so the results could be compared. Pearson Product Moment correlations were calculated for both clinical education r(2)=.570, p=.430 and field experience r(2)=.794, p=.206 to determine the stability of the instrument. An item analysis e^{62} of pilot data from the first round of testing was also calculated to measure internal consistency (Standardized alpha_{CE}=.954, standardized alpha_{FE}=.946). Appendix E contains a complete correlation table.

Upon closer examination of these pilot data, a possible ceiling effect was identified. The ceiling effect was suspected because of high mean composite scores for both clinical education (M_{CE} =155.2, SD_{CE} =20.3) and field experience (M_{FE} =162.4, SD_{FE} =16.2). The highest possible composite score of 185 for each clinical education and field experience would indicate a rating of extremely important for all of the education competencies. The possible reasons for these results may have been that 1) the data were accurate and thus there was no ceiling effect, 2) the survey was not sensitive enough to

distinguish the differences in perceived importance of clinical experience and field experience, or 3) subjects had difficulty in distinguishing between clinical education and field experience. Because of the possibility of a ceiling effect the survey was reformatted in an effort to increase the sensitivity of the instrument as well as to make it easier for subjects to differentiate between clinical education and field experience.

Survey Modification

The format of the survey was modified because sensitivity of the instrument and confusion of subjects may have played a role in inflating the first pilot data. Instead of a definition of clinical education and field experience being followed by a table of education competencies, each competency was separated into its own table with a list of four activities commonly occurring during clinical experience. The four activities were practicing clinical proficiencies with peers in an AT lab/ clinical course, individual instruction/ assessment of clinical proficiencies with an approved clinical instructor, practice coverage under the supervision of a clinical instructor and game coverage under the supervision of a clinical instructor. These activities were categorized into either clinical education or field experience using the Education Council's definitions⁹. Peer practice and ACI instruction were categorized as clinical education. Practice and game coverage were categorized as field experience. Subjects were asked to rate each activity according to its importance in their mastery of each specific education competency. These 36 tables were followed by the same demographic questions as used in previous testing.

Since the format of the survey had changed, content validity testing was repeated. The survey was distributed to the same sample of athletic training educators who were used for prior validity testing. The subjects were asked to provide written comment via email on the new format and directions. They were also asked to analyze the activities chosen to represent both clinical education and field experience. Their third task was to carefully read the competencies and determine if any were not essential to provide a good representation of the affective domain. The reason for the emphasis on the educational competencies is that given the new format the instrument was long and time consuming to complete. If 66% or more of the panel suggested a competency be removed from the survey it was deleted. Five competencies were removed at this time. After comments from the panel of experts the instrument was also changed to a six point Likert scale rating the activities from least important to most important. In addition subjects were asked to rank each activity according to its importance in development of the specified competency. This addition was included to encourage subjects to decide which activities were the most important to their learning. It was hoped that these changes would eliminate the ceiling effect. After making the changes the survey was returned to the panel of experts for one last examination for both face and content validity. Two thirds of the panel responded in a positive manner that the format and directions for the instrument were clear and concise and that the instrument was a good representation of the affective domain. One panel member did not respond.

Second Pilot Test

Following all of the revisions and validity assessments the survey was pilot tested for internal consistency and stability. Appendix F includes the cover letter sent to all subjects for pilot two. Appendix J contains the modified survey instrument. Subjects followed the same procedure that was used in the final data collection. Two weeks after completing the survey, subjects completed the survey a second time for comparison. The sample for this round of testing was upper-class students in accredited athletic training programs. Second-year students enrolled in the University of North Carolina at Greensboro's entry-level master's program and Elon University's undergraduate program were chosen to participate in this aspect of pilot testing for convenience even though they did not exactly represent the population that was used for the final data collection. Since all students had at least one year of clinical experience and had been exposed to the education competencies, these subjects were deemed sufficient for purposes of reliability testing of the survey instrument. Subjects outside of the test population were chosen so as to not limit or duplicate subjects for final data collection.

Results

Ceiling Effect

One concern of the previous instrument was a possible ceiling effect. An examination of the descriptive statistics, found in Table 1 and 2, indicated that while a small ceiling effect may have still existed it did appear to be decreased following the instrument revisions. The maximum possible score for rated data was 186 (6 X 31) and

the ranked data maximum score was 124 (4 X 31). The means were high but not all compressed near the upper limit of the instrument.

Table 1. Descriptive statistics for each activity's rated importance score calculated from pilot two, round one data.

Activity	Round 1 \bar{x} (SD)	Round $2x (SD)$
Peer practice	121.1 (34.8)	119.7 (29.5)
Game coverage	137.0 (13.9)	133.6(13.2)
Practice coverage	140.1 (16.8)	134.3(18.3)
ACI practice	149.0 (19.1)	144.7 (19.4)

Table 2. Descriptive statistics for each activity's ranked importance score calculated from pilot two, round one data.

	5.500000	
Activity	Round 1 \bar{x} (SD)	Round $2x (SD)$
ACI instruction	53.4 (15.0)	65.7(25.0)
Practice coverage	81.0 (20.8)	86.1(19.9)
Game coverage	87.1 (19.8)	90.5(15.3)
Peer practice	93.3 (25.7)	96.9(22.8)

Reliability

Reliability testing consisted of both internal consistency and stability testing. The results of pilot two are included in Appendix G. For internal consistency an item analysis was calculated from round one data for each of the four activities Likert scores with a range of standardized alpha = .8541-.9802. Table 3 includes the internal consistency data for each specific activity. The round one ranked data for each activity were also tested for internal consistency by item analysis. The range of the four activities was standardized alpha=.8874-.9707. Table four includes specific internal consistency data

for the four activities ranked data. Round one data were used for analysis because of a low return rate for round two (n=3). Stability was assessed using a test-retest method. This analysis indicated poor stability but it is impossible to draw any conclusions from these data because of the small sample size. Table five includes the stability data for each activity for reference. The composite scores for each activity were compared from the first round of testing to the second round of testing with an intraclass correlation ICC (3,1) formula. The (3,1) formula was chosen because the intent was to examine the reliability of the instrument rather than generalize these data to any other population.

Table 3. Internal consistency of each activity's rated importance scores for pilot two round one and round two as calculated from standardized alpha and intraclass correlation coefficient (ICC).

	Round 1			Round 2		
	Alpha	ICC	95% CI	Alpha	ICC	95% CI
Game	.8541	.86	.6298	.1440	.00	3097
Practice	.9485	.95	.8799	.8514	.85	.42-1.00
ACI	.9611	.95	.8899	.8210	.84	.36-1.00
Peer	.9802	.98	.95-1.00	.7712	.60	6799

Table 4. Internal consistency of each activity's ranked importance scores for pilot two calculated from standardized alpha and intraclass correlation coefficient (ICC) (*=not standardized alpha, **= 13 competencies without variance)

Activity	Round 1		•	Round 2		
-	Alpha	ICC	95% CI	Alpha	ICC	95% CI
Game	.8874	.89	.7298	.3640*	.36	-2.8-1.00**
ACI	.9065	.91	.7798	.9936	.99	.94-1.00
Practice	.9694	.97	.9299	.9931	.99	.96-1.00
Peer	.9707	.97	.91-1.00	.9811	.98	.92-1.00

Table 5. Stability of scores between the second pilot test round one and round two as calculated by intraclass correlation coefficients (ICC) for rating and ranking scores of each activity

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Activity	Ratings	Rankings
	ICC (3,1)	ICC (3,1)
ACI instruction	0.06	0.73
Game coverage	0.12	0.05
Peer practice	0.13	-0.03
Practice coverage	0.26	0.13

The range of the ICCs across the four activities was ICC=0.06-0.26. The composite score for each activity was calculated as a simple sum of all Likert scores for the activity. Stability of the ranked data was examined in the same way using a composite score of the ranked data for each of the four activities with a range of ICC=-0.03-0.73. The composite score was calculated by a simple sum of all the ranked data for each of the activities. Table five also includes the stability scores for the ranked data.

These data (ICC=-0.03-.73) were concerning, but it was decided that the internal consistency values from round one were sufficient to proceed. The final data collection did not include multiple rounds of testing therefore poor stability which may have been sample size related was not sufficient to change the instrument.

Sample

Entry level BOC certified athletic trainers who graduated from a CAAHEP accredited entry-level education programs served as the study population. These individuals were selected because by graduating from such a program and passing the certification exam, it is assumed they have developed competence in the NATA Educational Competencies and Clinical Proficiencies. Entry-level athletic trainers were

chosen because recent graduates have more perspective into the profession of athletic training and were able to provide more complete data. To be included in the study, each subject must have been employed as a certified athletic trainer in a recognized practice setting.

Sample size needs were determined by calculating the effect size from round one data using $f = \sqrt{SS_{bet}/k\sigma^2(1-\rho)}$ as suggested by Green⁶⁴ for a repeated measures design.

The effect size (f_{rate}=.0951, f_{rank}=.1978) was then used to determine the appropriate sample size at power =.80 and p=.05 from the power table in Barcikowski and Robey⁶⁵. Sample size needs according to the rated data was142 and ranked data was 192. Nine hundred twenty-nine subjects from the above population were chosen by the Board of Certification. This number was chosen to adjust for incorrect email addresses, subjects that were not currently employed as athletic trainers and return rate. A list of the exam candidates' email addresses who became certified between November 2002 and November 2003 was requested from The BOC.

Procedures

The survey was created using INQUISITE survey development software and published to a secure web site hosted by Elon University. Subjects received an email invitation to participate in the study including a brief description of the survey and a description of how informed consent was obtained. Passive informed consent was given by submission of the survey. Also included was a hyperlink to the web site hosting the survey so subjects needed only to click on the link to be taken directly to the survey instrument. There were no changes to the survey between the final pilot study and data

collection. Appendix H includes a copy of the cover letter sent to all subjects. Appendix I contains the survey instrument used. An IRB application including the final survey instrument was submitted and approved as exempted from review (File # 045108) before final data collection began. Appendix H includes the IRB exemption. All responses were kept confidential. Subjects were asked for their email address only to insure their removal from the reminder email list. Due to server issues these data were lost and not able to be retrieved. All subjects received four email reminders; the first after two weeks of being invited to participate, another after four weeks, the third and fourth reminders were sent at one week intervals. The reminder schedule was extended because of the server issues discussed above and winter break.

Web based procedures were chosen because of evidence of an increased response rate. Also, by using the internet, the data could be directly coded into an Excel file making data reduction and analysis faster. Internet access should have been available to most of the sample either at work or on a personal computer. All subjects should have been familiar with using the internet and accessing web pages as part of their education. Since this study was not concerned with ethnicity or socioeconomic status using computer based methods should not have affected the data.

Analysis

Each subject received two separate composite scores: one being the sum of all rated responses on the importance of the two activities categorized as clinical education and the second being the sum of all rated responses on the importance of the two activities categorized as field experience. These composite scores were used to assess

differences in the perceived role of formal and informal clinical experiences in the development of professional socialization using a repeated measures ANOVA. All analyses were calculated using SPSS (Statistical Package for Social Scientists) version 11.5. The composite scores were then also used to determine whether any of the demographics affected the perceived importance of clinical education or field experience using separate one way ANOVAs. Each activity was also examined individually with a repeated measures ANOVA to determine the perceived role of peer practice, one on one instruction with an ACI, practice coverage or game coverage on professional socialization of athletic trainers. Subjects were also asked to rank each of the four activities according to its importance in their development of competence. These rankings were examined using a repeated measures ANOVA to determine differences in the rankings for each activity. Table six describes the analysis in further detail. The assumption of sphericity was not violated; therefore, the degrees of freedom were not adjusted using either the Greenhouse and Geisser or Huynh and Feldt correction.

Research Question		Hypothesis Peer practice 1-1 ACI		Practice coverage	Game Coverage	Percent CE & FE	Quality Super.	First exp.	Analysis
1#	A	Rated CE Co	Rated CE Composite Score	Rated FE	Rated FE Composite Score				Но, и се=ине
									Repeated measures ANOVA
									DV= imp score
									IV= Experience (2 levels)
	В	Ranked Con	Ranked Composite Score	Ranked C	Ranked Composite Score				H ₀ ,µ ₁ =µ ₂ =µ ₃ =µ ₄
									Repeated measures ANOVA
									DV=imp score
									IV=Experience (2 levels)
	0	Rated Scores	Rated Scores	Rated Scores	Rated Scores				H _{0:} µ ₁ =µ ₂ =µ ₃ =µ ₄
									Repeated measures ANOVA
									DV=imp score
									IV=activity (4 levels)
	D	Ranked Scores	ss Ranked Scores	Ranked Scores	Scores Ranked				$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$
					Scores				Repeated measures ANOVA
									DV=imp score
									IV=activity (4 levels)

#2	Hypomesis	Peer practice	I-1 ACI	Practice coverage G	Game Coverage	Percent CE & FE	Quality Super.	First exp.	Analysis
	∀	Rated CE α	Rated CE composite score	Rated FE Composite Score	posite Score	×			H _{0,} μ ₁ =μ ₂ =μ ₃ =μ ₄ =μ ₅ 1 X 5 ANOVA DV=imp score IV=% time in CE (5 levels)
	В	Ranked CE (Ranked CE Composite Score	Ranked FE Composite Score	mposite Score	×			H _{0,} μ ₁ =μ ₂ =μ ₃ =μ ₄ =μ ₅ 1 X 5 ANOVA DV=imp score IV=% time in CE (5 levels)
	O	Rated Score	Rated Score	Rated Score	Rated Score	×			H _{0.} μ ₁ =μ ₂ =μ ₃ =μ ₄ =μ ₅ 1 X 5 ANOVA DV=imp score IV==% time in CE (5 levels)
	Q	Ranked Score	Ranked Score	Ranked Score	Ranked Score	×	-		H _{0,} μ ₁ =μ ₂ =μ ₃ =μ ₄ ==μ ₅ 1 X 5 ANOVA DV=imp score IV==% time in CE (5 levels)
	ш	Rate	Rated CE Composite Score	Rated	Rated FE Composite Score		×		H _{0.} μ ₁ =μ ₂ =μ ₃ =μ ₄ =μ ₅ 1 X 5 ANOVA DV=imp score IV=Qual. Supervision (5 levels)
	н	Rank	Ranked CE Composite Score	Ranked	Ranked FE Composite Score		×		H _{o,} μ ₁ =μ ₂ =μ ₃ =μ ₄ =μ ₅ 1 X SANOVA DV=imp score IV= Qual. Supervision (5 levels)
	o o	Rated Scores	Rated Scores	s Rated Scores	ores Rated Scores		×		H _o μ ₁ =μ ₂ =μ ₃ =μ ₄ =μ ₃ 1 X 5 ANOVA DV=imp score IV= Qual. Supervision (5 levels)
	H	Ranked Score	Ranked Score	e Ranked Score	core Ranked Score		×		H _{0.} µ =µ ₂ =µ ₃ =µ ₄ ==µ ₅ I X 5 ANOVA DV=imp score IV= Qual. Supervision (5 levels)
	<u></u>	Rate	Rated CE Composite Score	Rated	Rated FE Composite Score			×	H _{0,} μ ₁ =μ ₂ =μ ₃ =μ ₄ 1 X 4 ANOVA DV=imp score IV= first exp (4 levels)
	r	Rank	Ranked CE Composite Score	Rankec	Ranked FE Composite Score			×	$H_{0,\mu_1=\mu_2=\mu_3=\mu_4=}$ 1 X 4 ANOVA DV=imp score IV= first exp (4 levels)
	×	Rated Scores	Rated Scores	s Rated Scores	ores Rated Scores			×	H _{0,} µ ₁ =µ ₂ =µ ₃ =µ ₄ = 1 X 4 ANOVA DV=imp score IV= first exp (4 levels)
1	Γ	Ranked Score	Ranked Score	re Ranked Score	Score Ranked Score			×	H _{0,} µ ₁ =µ ₂ =µ ₃ =µ ₄ = 1 X 4 ANOVA DV=imp score N ₁ = core (A Joseph)

Percent CE & FE= percent of time spent in formal and informal experiences, Quality. Super= overall quality of supervision, first exp = when clinical experiences began

CHAPTER IV

RESULTS

This study examined the importance of various clinical experiences in professional socialization of athletic trainers. This chapter is organized into sections according to the hypotheses discussed in chapter one. Briefly stated, informal clinical education experiences are more important than formal field experiences to the development of professional socialization skills. The amount of time spent in formal and informal clinical experiences, quality of supervision or length of clinical experiences will increase the perceived importance of formal and informal clinical experiences in development of professional socialization for both rated and ranked data.

Descriptive Statistics

A score was calculated to represent each of the four activities investigated by summing the Likert score for each competency. Likewise the rankings for each competency were summed to provide a ranked score. These scores were used to represent each activity in all further analyses. Composite scores for clinical education and field experience were also calculated by summing the activity scores. Clinical education was represented by the peer practice and ACI instruction while field experience was represented by practice and game coverage. Descriptive statistics for each activity's rated score and rated composite scores are located in table 7. Table 8 contains the descriptive statistics for each activity's ranked score and ranked composite score.

Table 7. Descriptive data calculated for each activity and composite rated importance score

Activity	Mean	Standard deviation
Peer practice	115.45	27.58
Game coverage	118.62	19.20
Practice coverage	127.15	19.00
ACI instruction	135.35	19.76
Field experience composite	245.77	36.10
(Game + Practice)		
Clinical experience composite	250.80	40.62
(Peer + ACI)		

Table 8. Descriptive data calculated for each activity and composite ranked importance score

Activity	Mean	Standard deviation
ACI instruction	60.52	18.39
Practice coverage	74.58	19.762
Game coverage	88.62	19.34
Peer practice	89.82	24.45
Field experience composite (Game + Practice)	150.33	31.03
Clinical experience composite (Peer + ACI)	163.20	32.81

The response rate was 13% which was calculated by determining the number of individuals that both received the email and met all inclusion criteria to participate in the study. Table 9 provides details about the calculation of response rate. The figures indicating the average percentage of graduates gaining employment in athletic training or pursuing a graduate degree was adapted from the JRC-AT tracking data published in the NATA News. 66, 67

Table 9. Data used in the calculation of response rate.

Initial sample	929	
Undeliverable emails	99	
Sample who received emails	830	
Entry-level graduates employed ATC (mean Entry –level graduate enrollment in advanced	98-02)(JRC-AT Entry) 42% d athletic training or other	
non health science graduate program (2002)	16%	
Graduate level students employed in athletic	training ^(JRC-AT Grad) 86%	
Graduate students employed from this sample	e (16*.86) 13.89	%
This sample employed as an athletic trainer	55.8%	%
Adjusted sample size	462.8	3
Total returned surveys (62-2 less than ½ com	plete) 60	
Adjusted response rate.	0.130)

Internal consistency was also calculated for both rated and ranked data for each activity using an item analysis. The range for the rated data was standardized alpha=.9349 - .9697. Reliability of the ranked data was determined in the same manner with a range of standardized alpha=.8751 - .9446. Tables 10 and 11 include further details about the specific internal consistency data for each activity.

Table 10. Internal consistency values as measured by standardized alpha and intraclass correlation coefficient (ICC) for the individual activities rated importance scores

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Activity	Alpha	ICC	95% CI
Game coverage	.9349	.93	.9196
Practice coverage	.9422	.94	.9296
ACI Instruction	.9600	.96	.9497
Peer practice	.9697	.97	.9698

Table 11. Internal consistency values as measured by standardized alpha and intraclass correlation coefficient (ICC) for the individual activities ranked importance scores

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Activity	Alpha	ICC	95% CI
Game coverage	.8751	.88	.8392
ACI Instruction	.9284	.93	.9095
Peer practice	.9439	.94	.9296
Practice coverage	.9448	.94	.9296

Importance of Clinical Experiences

The first research question related to whether entry-level athletic trainers perceived clinical experiences to be important in the development of professional socialization. Using the composite scores, there were no differences in the importance of clinical education and field experiences in development of the selected affective domain competencies, f(1,59)=1.017, p=.317, $q^2=.017$, $(1-\beta)=.168$. However, when considering each activity separately there were statistically significant differences, f(3,56)=18.568, p=.000, $q^2=.239$. Table 12 details where these differences occurred. ACI instruction was more important than the other three activities. Practice coverage was more important than both game coverage and peer practice

Table 12. Results of a pairwise comparison of the rated mean importance for the four activities in development of professional socialization.

Activity		Mean Difference	Std. Error	Significance
Peer	ACI	-19.90	3.30	.000
	Practice	-11.70	3.76	.003
	Game	-3.17	3.72	.398
ACI	Peer	19.90	3.30	.000
	Practice	8.20	2.15	.000
	Game	16.73	2.40	.000
Practice	Peer	11.70	3.77	.003
	ACI	-8.20	2.15	.000
	Game	8.53	1.61	.000
Game	Peer	3.17	3.72	.398
	ACI	-16.73	2.40	.000
	Practice	-8.53	1.61	.000

Using composite scores to represent the ranked data, clinical education was more important than field experience, $f(1,59)=4.216,p=.044, \eta^2=.067$. Among ranked data there were also differences in level of importance of specific activities in the development of competence in the affective domain, $f(3,56)26.892, p=.000, \eta^2=.313$. ACI instruction was again considered the most important activity. Practice coverage was also more important than both game coverage and peer practice. Table 13 details the differences among each activity.

Table 13. Results of a pairwise comparison of the ranked mean importance for the four activities in development of professional socialization.

Activity		Mean Difference	Std. Error	Significance
Peer	ACI	29.30	3.89	.000
	Practice	15.23	4.59	.002
	Game	1.20	3.97	.764
ACI	Peer	-29.30	3.89	.000
	Practice	-14.07	3.45	.000
	Game	-28.10	3.63	.000
Practice	Peer	-15.23	4.59	.002
	ACI	14.07	3.45	.000
	Game	-14.03	2.75	.000
Game	Peer	-1.20	3.97	.764
	ACI	28.10	3.63	.000
	Practice	14.03	2.75	.000

Demographic Effects

There were no differences between the clinical education and field experience composite scores with any of the demographic factors. The amount of time spent in clinical education versus field experience, quality of supervision, or early versus late clinical experience had no effect on the importance of either clinical education or field experience in either rated or ranked data. Tables 14 through 16 outline the specific analyses.

Table 14. Results of one-way ANOVAs considering the effect of time spent in clinical education versus field experiences on the importance of clinical education (CE) and field experience (FE) for professional socialization.

Experience type	F(df)	Significance		
Rated CE Composite	.439(3,56)	.726		
Rated FE Composite	2.322(3,56)	.085		
Ranked CE composite	.444(3,56)	.723		
Ranked FE composite	.923(3,56)	.436		

Table 15. Results of one-way ANOVAs considering the effect of supervision quality on the importance of clinical education (CE) and field experience (FE) for professional socialization.

Experience type	F(df)	Significance	
Rated CE Composite	2.218(3,56)	.096	
Rated FE Composite	1.624(3,56)	.194	
Ranked CE composite	.631(3,56)	.598	
Ranked FE composite	2.169(3,56)	.102	

Table 16. Results of one-way ANOVAs considering the effect of number of semesters spent in clinical experience on the importance of clinical education (CE) and field experience (FE) for professional socialization utilizing both rated and ranked data.

1	2	
Experience type	F(df)	Significance
Rated CE Composite	.569(3,56)	.569
Rated FE Composite	.694(3,56)	.504
Ranked CE composite	.745(3,56)	.479
Ranked FE composite	.110(3,56)	.896

When comparing rated data for specific activities there were also no differences in the perception of importance between any of the four activities while considering the percentage of time spent in clinical education as compared to field experience, quality of supervision or when the education program's clinical experiences began (Tables 17-19). Upon examination of the ranked data for specific activities (Tables 20-22) there were two notable differences. Athletic trainers who began their field experience in the third year of the program ranked ACI instruction as less important than those who had earlier field experience. These findings may not be meaningful as eight subjects were in the late experience group. Subjects who rated their supervision as above average ranked game coverage as less important than subject's with excellent supervision. Again this may be a

subject number artifact. The group (n=35) that rated supervision above average was larger than any of the other groups.

Table 17. Results of one-way ANOVAs utilizing the rated data considering the effect of time spent in clinical education versus field experience on the importance of each activity for professional socialization.

Activity	F(df)	Significance
Peer Practice	.125(3,56)	.945
ACI interaction	1.062(3,56)	.373
Practice Coverage	2.396(3,56)	.078
Game Coverage	1.943(3,56)	.133

Table 18. Results of one-way ANOVAs utilizing rated data considering the effect of quality of supervision on the importance of each activity for professional socialization.

	<i>J</i> 1	
Activity	F(df)	Significance
Peer Practice	2.562(3,56)	.064
ACI interaction	.985(3,56)	.406
Practice Coverage	2.023(3,56)	.121
Game Coverage	1.182(3,56)	.325

Table 19. Results of one-way ANOVAs utilizing rated data considering the effect of number of semesters spent in clinical experience on the importance of each activity for professional socialization.

F(df)	Significance	
1.992(2,57)	.146	
.318(2,57)	.729	
.787(2,57)	.460	
.482(2,57)	.620	
	1.992(2,57) .318(2,57) .787(2,57)	1.992(2,57) .146 .318(2,57) .729 .787(2,57) .460

Table 20. Results of one-way ANOVAs utilizing ranked data considering the effect of time spent in clinical education versus field experience on the importance of each activity for professional socialization.

<u>1</u>		
Activity	F(df)	Significance
Peer Practice	.460(3,56)	.711
ACI interaction	.968(3,56)	.414
Practice Coverage	1.609(3,56)	.197
Game Coverage	.433(3,56)	.730

Table 21. Results of one-way ANOVAs utilizing ranked data considering the effect of quality of supervision on the importance of each activity for professional socialization.

Activity	F(df)	Significance
Peer Practice	.360(3,56)	.782
ACI interaction	1.409(3,56)	.250
Practice Coverage	.723(3,56)	.543
Game Coverage	3.369(3,56)	.025

Table 22. Results of one-way ANOVAs utilizing rated data considering the effect of number of semesters spent in clinical experience on the importance of each activity for professional socialization.

Activity	F(df)	Significance
Peer Practice	2.784(2,57)	.070
ACI interaction	3.876(2,57)	.026
Practice Coverage	.775(2,57)	.465
Game Coverage	.271(2,57)	.764

CHAPTER V

DISCUSSION

The primary findings were that both clinical education and field experience were equally important to entry-level athletic trainers' perceptions of professional socialization. Clinical education was measured by combining the scores for peer practice and ACI instruction, while field experience was measured by combining practice and game coverage. A closer examination of the data reveals that the four activities may have balanced each other resulting in one composite score being relatively equal to the other. When the activities are examined separately, differences in importance did arise between ACI interaction, practice coverage, game coverage and peer practice.

Approved Clinical Instructor Interaction

ACI interaction was considered the most important activity by both rated and ranked data. These data support the thought that clinical supervisors are the backbone of a quality experience for athletic training students. In the allied health care and athletic training literature the terms role model and mentor are used without consistent definitions. These variations across studies result in both terms being used to represent a similar ACI- student relationship. Because of the inconsistent use of terminology this study considered the term "role model" to be when the ACI was exhibiting behaviors observed by students which changed the students' practice but were not intended solely to change behavior. An ACI practicing as a moral and ethical athletic

trainer would be a good role model even though they are not consciously trying to change the students' behaviors. The term "mentor" was defined as a close relationship between two individuals where the mentor acts intentionally to change the behavior of the student. An ACI demonstrating and explaining moral and ethical practice to a student in order to change student behavior is acting as a mentor. These definitions are adapted from two qualitative athletic training studies conducted where data were collected from students about the role of ACIs³¹ and mentors.³⁷

Pitney and Ehlers³⁷ reported that undergraduate athletic training students who consider themselves in a mentor/student relationship identify either the ACI or clinical instructor as the mentor. Perhaps it is this role of mentor performed by the ACI that subjects perceived as so important to their professional socialization. Mentoring was continually reported in the athletic training literature^{31,32,37,69} as well as other allied health literature^{49,70} as vital to professional socialization. Mentors and role models are thought to aid in students' role identity, by either intentionally or unintentionally allowing development of skills, values and behaviors necessary for successful practice.⁴⁹

Closing the theory practice gap is one area of professional socialization that is assisted by a relationship with a professional role model or mentor. Closing the theory practice gap allows the student to adjust their professional identity from that of an idealistic student to that of a novice professional.⁴⁹ Mentors were considered very important in assisting students to feel like they belonged to the health care team and had the knowledge and confidence to actively participate with in the team.⁵²

These data agreed with Curtis, Helion, and Dohmson's³¹ critical incidence study which identified categories of important behaviors by clinical instructors as reported by students in four accredited athletic training education programs. Students were asked to report behaviors by instructors that were useful as well as detrimental to their learning. Mentoring, professional acceptance, nurturing and modeling were identified from the data, with mentoring being the most frequent.³¹

Whether the ACI is acting as a role model, mentor or just providing an accepting and nurturing environment for the student to learn, their presence is clearly important in student development and professional socialization. In order to maximize these functions, ACIs need to be mindful of the relationship they develop with athletic training students under their supervision. In order to be a good mentor, Pitney and Ehlers reported the importance of being accessible and approachable. Also important is developing a relationship with the student based on similar values and trust. The third area of importance was facilitating the students' development of the knowledge, skills and behaviors necessary for successful professional practices.³⁷ Not every ACI will develop this type of close personal relationship with each athletic training student, but these behaviors are important to remember when interacting with students. All ACIs should act in ways to intentionally improve students' behaviors and professional socialization.

Practice versus Game Coverage

Practice coverage was considered the second most important activity in the learning of professional socialization. The data support the fact that, just as in the

nursing profession,^{49, 52} athletic training students need clinical experience to become successful practicing athletic trainers.^{69, 71} Students can have the best classroom teachers and master all the relevant clinical skills in the laboratory, but still not be qualified clinicians.⁸ Students need to spend time in clinical settings to develop decision-making skills and competence in the affective domain.⁸ Clinical experiences allow students to incorporate real world experiences into their learning which enhances their development of a professional identity.^{1, 8, 49}

It is interesting that while both practice and game coverage were considered important to learning, practice coverage was considered more important. Perhaps this has to do with the nature of each activity. Practice opportunities far out number game opportunities in any given athletic season, therefore subjects had more exposure to practices which may have influenced their perceptions of importance. Subjects may have learned more during practice coverage simply because they spent more time covering practices. Practices also may lend themselves to an enhanced educational opportunity because of the intensity of the experience. Depending on the situation perhaps students are encouraged to more actively participate as athletic trainers during practices. The clinical instructor and students may feel less pressure during a practice and be able to take advantage of a greater number of teachable moments during the experience. Often times the focus shifts away from education during a game environment. Because of pressures during a game to perform skills students may be less likely to engage in these professional behaviors. Likewise there is less time for interaction between the student

and ACI during a game for corrective feedback. These parameters make a game situation a less conducive environment for student learning.

Subjects were asked to rate the importance of supervised practice and supervised game coverage while completing the survey. The presence of an ACI during these experiences may have affected the subject's perceptions of both practice and game coverage. The effects of practice and game coverage can not be separated from the presence of the ACI in these data. Only supervised experiences were examined as those are the only experiences defined as educational by the JRC-AT.

When considering the importance of practice and game coverage there is essentially no data with which to compare these results. There is little research in athletic training education that has examined different clinical experience activities. Two studies have investigated students' learning activities during practice coverage³⁴ and a comparison of high school practice coverage, college practice coverage and a clinical/ industrial/ corporate rotation.³⁹ No one has compared practice coverage to game coverage as of this time. Miller³⁴ reported that athletic training students were only engaged in active learning 30% of the time spent in clinical experience. Berry³⁹ reported that students spent more time actively engaged while in a clinical / industrial/ corporate setting than in the college/ university or high school setting. While these studies are interesting it would be useful to also investigate different clinical activities such as practices, games, treatment times, etc to further understand how to best develop clinical experiences for our students. Another limitation of these studies is that observing practice was considered waiting time which was not included as active learning.^{34, 39}

Observing practice can be a valuable learning experience in that the student is learning about the biomechanical and physiological demands of the athletes as well as watching for injuries.

Peer Learning

While subjects perceived peer practice of clinical proficiencies to be an important component of clinical experience, they reported it to be less important than ACI instruction and practice coverage for professional socialization. This is interesting as peer practice is commonly accepted to involve individuals working collaboratively to enhance performance. Peer learning is thought to improve student reflection, promote a deeper understanding of cognitive theories, ⁵⁵⁻⁵⁷ assist students in applying theory to clinical practice, ⁵⁶⁻⁵⁸ problem solving, ⁵⁶⁻⁵⁸ practical skills, ⁷² self-direction and confidence. These concepts are all important to the development and socialization of an independent practitioner since professional socialization is the development of the knowledge, skills, attitudes, roles and values of a successful practitioner.

Peer learning is primarily used to allow students to work together to share experiences and learn and grow from each other. From a professional development standpoint, peer learning can be important as it provides opportunity for the student to practice being a colleague. 57, 58, 74 Athletic trainers, like other health care providers, rarely work in isolation. Peer learning allows the student to practice being part of the health care team. By learning to collaborate with peers, students will be better socialized into the profession. This practice helps the student develop a sense of professional identity. 57-59

There are disadvantages to peer practice which may support the subjects' assertions of the secondary importance of peer practice for socialization. When working solely with peers there are no experts involved to inform them of the proper role of an athletic trainer in various situations. Peer learning can result in incorrect learning when no one in the group has a correct understanding of the theory or skill at hand. ⁵⁶ Peer learning can also reveal the difference in understanding between the group members.⁵⁵ Peer learning relies upon previous experiences and for a novice it may not be the best relationship. 55 These disadvantages taken together may have contributed to the perception that peer practice is less important for professional socialization. However it is important to remember that while peer learning was considered less important than ACI interaction and practice coverage it was still rated as important overall. Peer practice received a mean Likert score of 3.72 on a six point scale. A score of 3.0 is an important barometer as it would indicate a neutral feeling towards the activities' importance for professional socialization. Table 23 provides the mean Likert score for each activity's importance rating.

Table 23. Average Likert Scale rating for each activity's importance for professional socialization on a six point scale with 1 being least important and six being most important.

Activity	Average score
Peer Practice	3.72
Game Coverage	3.83
Practice Coverage	4.10
ACI Interaction	4.37

Demographic Effects

When considering the demographics, again there was no difference between clinical education and field experience. These analyses may have been affected by the low sample size as some demographic groups had very small numbers. When looking at the ranked data there were two statistical differences. ACI interaction was considered less important by athletic trainers who began their experiences later in the program. This difference may be related to the knowledge base and confidence level of these students who have had more class work before entering the clinical setting. They feel less dependent upon the ACI mentoring. However, given that the later experience group (n=8) was much smaller than the earlier experience groups, it is possible that it is a sample size issue rather than a real effect.

Another activity specific difference was related to supervision. Subjects who rated their supervision as above average ranked game coverage as less important than those who rated their supervision quality as excellent. There were no differences in average and below average supervision with any other group. Again this may be a sample artifact as the above average group was larger than any of the other supervision groups. These data may be mimicking the overall sense of the sample related to game coverage.

Response Rate and Generalizability of the Findings

The primary limitation to this study was the response rate, although there is a national trend of decreasing response rates in survey research.⁷⁵⁻⁷⁸ According to a meta analysis conducted by Sheehan⁷⁵ the mean response rate for email based surveys in 2000

was 24%. Four of the email surveys examined by Sheehan⁷⁵ published from 1986-2000 had single digit response rates. Reasons for this decline in response rates were increase in the number of surveys potential subjects receive, ^{75, 76} length of survey and issue salience.⁷⁵ The instrument used in this study collected both rated and ranked importance data of the four activities for each of the 31 competencies chosen. It was designed to take 25 minutes to complete. Each time attempts were made to decrease the length the reliability was adversely affected. Also, there is an increasing trend of using survey research both in the academy and in business. As subjects get tired of receiving surveys they are less likely to respond. Also, some subjects may feel their responses are not impacting the way athletic trainers practice. These issues lessen their likelihood of participating.^{75, 76}

Another possible reason for the low response rate was computer problems. The first week of data collection the server which hosted the instrument was offline for 10 days. Many participants may have attempted to complete the survey and were unable to do so. These subjects may have been unwilling to attempt the survey again even after reminders were sent acknowledging the server issues. When the server was repaired and returned online the instrument had reverted to an earlier version which didn't include contact emails addresses. Thus there was no way for the researcher to contact non-responders to measure the possibility of non response bias.

With a 13% response rate there is a potential for non-response bias, which may limit the generalizability of the data. A low response rate is an indication of a possible sample bias not a definite sample bias. It is possible that even given a low response rate,

the data are indicative of the sample as a whole ^{77, 78}. One study in occupational health research investigated the correlation between response rate and effect size. Their hypothesis was as more subjects responded the effect size would decrease as the sample normalized itself toward the mean. If a response rate was very small then only subjects very interested in the topic at hand would reply, thereby increasing the effect size.

Although there was a negative correlation between response rate and effect size, it was not significant (p=.09-.73). Their conclusion was that nonresponse bias is less of an issue than previously thought. There are limitations to the study in that the variables (role ambiguity, role strain, job satisfaction) of their meta-analysis were not particularly sensitive. They also used previously published data for the analysis, so studies with extremely low response rates were unavailable for analysis. Nevertheless, the results provide some data to support that even given a low response rate nonresponse bias is not a given and may in fact have very little effect on the generalizability of the results⁷⁷.

Many journals do not require a response rate to be mentioned.^{76, 79} Those journals that do require a report of response rate allow individual reviewers to determine the quality of the study, but given the trend of decreasing response rates no minimum would be stated. Each article submitted for publication would be considered on an individual basis. There are instances of manuscripts being published with less than a four percent response rate.¹⁹ It was concluded that manuscripts submitted with less than a 20% response rate had less chance of being published.⁷⁹

Implications for Athletic Training Education

The findings of this study are relevant to athletic training education even given the limitations noted above. It is recognized that the affective domain competencies used to represent professional socialization are in the process of being reformulated to represent core values of the profession from the educational competencies used to design athletic training education programs. The reformulation of these competencies should not decrease the importance of these data and conclusions. The affective competencies were chosen to provide a framework for subjects to reflect upon their professional socialization. Professional socialization is still inherent in athletic training education even without these competencies. The proposed core values include aspects of professional socialization as do the new clinical proficiencies. Areas such as legal and ethical practice, understanding the scope of practice, demonstrating compassion and altruism and utilizing a team approach are all areas included in professional socialization. Professional socialization is important in providing students and new professionals with a sense of their role as an athletic trainer. Even if this is not explicit within the educational competencies it is necessary for successful clinical practice and to decrease the attrition of professionals. In short, if students are not socialized into the profession they will most likely leave it. Professional socialization can be considered a developmental process that begins during entry-level education. 48,50 Athletic training education researchers should devote some time and energy to investigating how athletic training students are socialized into the profession in order to facilitate the transformation from student to practitioner.

Based on reported data athletic training educators need to focus on the recruitment, development and retention of high quality ACIs. While recruiting ACIs, clinical coordinators need to focus on the educational philosophy of the ACI, and not base the selection on convenience. ACIs should be purposefully chosen based on their abilities to facilitate student learning and serve as a good quality role model, not because they are nearby and need assistance in covering their athletic responsibilities. ACIs need to understand their function as a role model and educator for these young professionals. The mindset of all individuals involved in clinical experiences needs to be how student learning and socialization can be enhanced. The idea of students as a labor force needs to be removed from the situation. Students may provide some service to the ACI and the clinical site, but the services provided need to serve an educational purpose.

Athletic training educators also need to focus on developing good quality ACIs. Many individuals have an interest in educating students and serving as an ACI, but do not have the knowledge or skills necessary to do so.^{23,35} ACI training needs to focus not just on the documentation of the experience, but also should be true professional development for ACIs. Focusing on dealing with common student issues, motivating students to engage in the setting, designing a good learning environment, teaching critical thinking skills and balancing clinical responsibilities with student supervision are just some suggestions of topics that need to be addressed. A small amount of theory should be addressed, but the focus should be on strategies the ACI can utilize during clinical experiences. Athletic training educators should communicate with ACIs and students to

facilitate the development of a better learning environment for students and higher quality ACIs.²³

Student supervision is another important component of being a high quality ACI. How can an ACI be a role model and mentor to students if not providing audio and visual supervision? Subjects indicated that one on one instruction with an ACI was the most important activity in their professional socialization, which indicated that student supervision is vital for student learning. Therefore, ACIs need to provide audio and visual supervision for students to provide a high quality learning experience.

Athletic training educators should apply the findings of this study when designing clinical experiences for their students. Peer practice, ACI interaction, practice coverage and game coverage are all important to students' development into successful practicing clinicians. Educators should focus on a balanced approach to clinical experiences to maximize student socialization into the profession. Athletic training students should experience both practice and game coverage in a traditional athletic training setting. They should be encouraged to participate in peer practice. And finally, perhaps the most important part of an athletic training students' professional socialization is interacting with practicing professionals. Using these professionals as role models and mentors is the most important activity for athletic training students to undertake.

REFERENCES

- 1. Dunn SV, Ehrich L, Mylonnas A, Hanford BC. Students' perceptions of field experience in professional development: A comparative study. *Journal of Nursing Education*. 2000;39:393-?
- **2.** Edmond CB. A new paradigm for practice education. *Nurse Education Today*. 2001;21:251-259.
- **3.** Laudicina RJ, Beck SJ. Laboratory managers' perceptions of the impact of teaching on the clinical laboratory. *Clinical Laboratory Science*. 2000;13:180-186.
- 4. Talbot M. Professional modeling: A questionnaire study of junior doctors' attitudes to aspects of experiential learning on the hospital working round. *Medical Education*. 2000;34:312-315.
- **5.** Maudsley G, Strivens J. Promoting professional knowledge, experiential learning and critical thinking for medical students. *Medical Education*. 2000;34:535-544.
- **6.** Ford-Gilboe M, Laschinger HS, Laforet-Fliesser Y, Ward-Griffin C, Foran S. The effect of a clincal practicum on undergraduate nursing students' self-efficacy for community based family nursing practice. *Journal of Nursing Education*. 1997;36:212-219.
- 7. Pitney WA. The professional socialization of certified athletic trainers in high school settings: A grounded Theory investigation. *Journal of Athletic Training*. 2002;37:286-292.
- **8.** Koehneke P, Editor MGD. Educating student clinicians versus student technicians. *Athletic Therapy Today*. 1997;March:52-53.
- 9. NATA Education Council. National Athletic Trainers' Association Education Council Clinical Education Definitions [Web page]. Available at: http://www.cewl.com/clined/clindef.html. Accessed 2/14/2003, 2003.
- **10.** Moss R. The athletic trainer's coming of age. *Scholastic Coach.* 1991; April: 66-68.
- **11.** American Association of Orthopaedic Surgeons. *Athletic training and sports medicine*. 2nd ed. Rosemont, IL: AAOS; 1991.

- **12.** Arnheim D, Prentice W. *Principles of athletic training*. 10th ed. Boston, MA: McGraw-Hill; 2000.
- **13.** Dolan J. *Treatment and prevention of athletic injuries*. Danville, IL: The Interstate; 1955.
- **14.** Delforge GD, Behnke RS. The History and Evolution of Athletic Training Education in the United States. *Journal of Athletic Training*. 1999;34:53-61.
- **15.** Legwold G. "Pinky" Newell: The man who dropped the bucket and sponge. *Physician and Sportsmedicine*. 1983;April:179-182, 187-190.
- **16.** Morehouse L, Rasch P. *Sports medicine for trainers*. 2nd ed. Philadelphia: WB Saunders; 1963.
- 17. McLean J. Does the National Athletic Trainers' Association need a certification examination? *Journal of Athletic Training*. 1969;4 Journal of Athletic Training reprint 1999;34:292-293.
- **18.** Kauth B. The athletic training major. *Journal of Physical Education, Recreation and Dance.* 1984;October:11-13,80-83.
- **19.** Miller S. Athletic Training Education at the crossroads. In: Bell G, ed. *Professional Preparation in Athletic Training*. Champaign, IL: Human Kinetics; 1982.
- **20.** Miller S. Approval of athletic training curriculums at colleges and universities. *Journal of Athletic Training*. 1970;5:Journal of Athletic Training Reprint 1999;1934:1962-1963.
- **21.** Grace P. Milestones in athletic trainer certification. *Journal of Athletic Training*. 1999;34:285-291.
- **22.** Commission on Higher Education Accreditation. Board of Directors Report. *The CHEA Chronicle*. August 17 2003 2002;5:http://www.chea.org/Chronicle/index.cfm.
- **23.** Weidner TG, Henning JM. Historical Perspective of athletic training clinical education. *Journal of Athletic Training*. 2002;37:S222-S228.
- **24.** Starkey C. Reforming athletic training education. *Journal of Athletic Training*. 1997;32:113-114.

- **25.** Joint Review Committee on Education Programs in Athletic Training. Standards and Guidelines for an accredited educational program for the athletic trainer. *Commission on the Accreditation of Allied Health Education Programs*. 2001. Available at: http://www.caahep.org/standards/at_01.htm. Accessed 2/14/2003, 2003.
- **26.** Harden RM, Crosby JR, Davis MH. AMEE guide no. 14: Outcome based-education: Part 1 -- An introduction to outcome-based education. *Medical Teacher*. 1999;21:7-14.
- 27. Smith SR, Dollase R. AMEE guide no. 14: Outcome based education: Part 2-planning, implementing, and evaluating a competency based curriculum. *Medical Teacher*. 1999;21(1):15-22.
- **28.** Osta K. *NATA Revised Strategic Plan.* St. Lois MO: National Athletic Trainers' Association; 23 June 2003 2003.
- **29.** Joint Review Committee on Education Programs in Athletic Training. JRC-AT Update: January 2005 (Educators' Conference). Available at: http://www.jrc-at.org/ppt/presentation 2005 ed conference.pdf. Accessed 03/13/2005, 2005.
- **30.** Weidner TG, Pipkin J. Clinical supervision of athletic training students at colleges and universities needs improvement. *Journal of Athletic Training*. 2002;37:S241-S247.
- 31. Curtis N, Helion JG, Domsohn M. Student athletic trainer perceptions of clinical supervisor behaviors: A critical incident study. *Journal of Athletic Training*. 1998;33(3):249-253.
- **32.** Meyer LP. Athletic training clinical instructors as situational leaders. *Journal of Atlhetic Training*. 2002;37(4S):S261-S265.
- 33. Stemmans CL, Gangstead SK. Athletic training students initiate behaviors less frequently when supervised by novice clinical instructors. *Journal of Athletic Training*. 2002;37(4S):S255-S260.
- **34.** Miller MG, Berry DC. An assessment of athletic training students' clinical-placement hours. *Journal of Athletic Training*. 2002;37(4S):S229-S235.
- **35.** Laurent T, Weidner TG. Clinical -Education-Setting standards are helpful in the professional preparation of employed, entry-level certified athletic trainers. *Journal of Athletic Training*. 2002;37:S248-S254.

- **36.** Sammarone-Turocy P, Comfort RE, Perrin DH, Gieck JH. Clinical Experiences are not predictive of outcomes on the NATABOC examination. *Journal of Athletic Training*. 2000;35(1):70-75.
- **37.** Pitney WA, Ehlers GG. A grounded theory study of the mentoring process involved with undergraduate athletic training students. *Journal of Athletic Training*. 2004;39(4):344-351.
- 38. List of regulated states. *National Athletic Trainers' Association* [Web Page]. Available at: https://www.nata.org/members1/committees/gac/stateregboards.htm. Accessed 13 March 2005, 2004.
- **39.** Berry DC, Miller M, Berry L. Effects of clinical Field-experience setting on athletic training students' perceived percentage of time spent on active learning. *Journal of Atlhetic Training*. 2004;39(2):176-184.
- **40.** Brandenburger-Shasby S. *Personnel Preparation of occupational therapists: School based practice* [Doctoral Dissertation- research], University of South Carolina; 2000.
- 41. Bohlin RM. The affective domain: A model of learner-instruction interactions. Paper presented at: National Convention of the Association for Educational Communications and Technology; February 18-22, 1998, 1998; St. Louis MO.
- **42.** Epstein RM, Hundert EM. Defining and assessing professional competence. *The Journal of the American Medical Association*. 2002;287:226-235.
- **43.** Reilly DE. *Teaching and evaluating the affective domain in nursing programs*: Slack; 1978.
- **44.** Spence LM, Hicocl P, Wiggers T. Minimizing instructor bias in the evaluation of student affect. *Clinical Laboratory Science*. 294 1999;12(5):290.
- **45.** Howe A. Professional development in undergraduate medical curricula- the key to the door of a new culture? *Medical Education*. 2002;36:353-359.
- **46.** Teschendorf B, Nemshick M. Faculty Roles in professional socialization. *Journal of physical therapy education*. Spring 2001 2001;15(1):4-??
- **47.** Krathwohl DR, Bloom BS, Masia BB. *Taxonomy of educational objectives: the classification of educational goals: handbook II affective domain*. New York: David McKay Co.; 1964.

- **48.** Weidman JC, Twale DJ, Stein EL. *Socialization of graduate and professional students in higher education: A perilous passage?* Vol 28. San Francisco: Jossey-Bass; 2001.
- **49.** Coudret NA, Fuchs PL, Roberts CS, Suhrheinrich JA, White AH. Role socialization of graduating student nurses: Impact of a nursing practicum on professional role conception. *Journal of Professional Nursing*. 1994 1994;10:342-349.
- **50.** Thornton R, Nardi PM. The dynamics of role acquisition. *The American Journal of Sociology*. 1975;80:870-885.
- **51.** Schemp PG, Graber KC. Teacher socialization from a dialectical perspective: Pretraining through induction. *Journal of Teaching in Physical Education*. 1992 1992;11:329-348.
- **52.** Secrest JA, Norwood B, Keatley VM. "I was actually a nurse": the meaning if professionalism for baccalaureate nursing students. *Journal of Nursing Education*. 2003;42(2):77-82.
- Maudsley G. Roles and responsibilities of the problem based learning tutor in the undergraduate medical curriculum. *British Medical Journal*. 1999;318:657-661.
- 54. Sladyk K, Sheckley B. Clinical reasoning and reflective practice: Implications of fieldwork activities. *Occupational Therapy in Health Care*. 2000;13(1):11-22.
- **55.** DeLisi R. From marbles to instant messenger: implications of Piaget's ideas about peer learning. *Theory Into Practice*. 2002;41(1):5-12.
- **56.** Ladyshewsky RK. Peer-assisted learning in clinical education: a review of terms and learning principles. *Journal of Physical Therapy Education*. 2000;14:15-22.
- **57.** Lincoln MA, McAllister LL. Peer learning in clinical education. *Medical Teacher*. 1993;15:17-25.
- **58.** Eisen M-J. Peer-based professional development viewed through the lens of transformative learning. *Holistic Nurse Practitioner*. 2001;16(1):30-42.
- **59.** Hart G. Peer consultation and review. *Australian Journal of Advanced Nursing*. 1990;7:40-46.
- **60.** Duquette C. Conflicting perceptions of participants in field-based teacher education programs. *McGill Journal of Education*. 1997 1997;32:263-272.

- 61. Admi H. Nursing students' stress during the initial clinical experience. *Journal of Nursing Education*. September 1997 1997;36:323-327.
- **62.** Nardi PM. *Doing Survey Research: A guide to quantitative methods*. Boston: Allyn and Bacon; 2003.
- 63. Sammarone-Turocy P. Survey research in athletic training: Scientific method of development and implementation. *Journal of Athletic Training*. 2002;37(4S):S174-179.
- **64.** Green SA. Power Analysis in Repeated Measures Analysisi of Variance with Heterogeneously Corrected Trials. *ERIC Document*. April 1990 1990(ED 320 932):1-41.
- **65.** Barcikowski R, Robey R. Sample Size Selection in single Group Repeated Measures Analysis. *ERIC Document*. April 1985 1985.
- **66.** Joint Review Committee on Education Programs in Athletic Training. Tracking graduates of graduate athletic training programs. *NATA News*. 2004.
- **67.** Joint Review Committee on Education Programs in Athletic Training. Tracking graduates of entry-level education programs. *NATA News*. 2004.
- **68.** Cahill HA. A qualitative analysis of student nurses' experiences of mentorship. *Journal of Advanced Nursing.* 1996;24:791-799.
- **69.** Pitney W, Ilsley P, Rintala J. The professional socialization of athletic trainers in the National Collegiate Athletic Association division I context. *Journal of Athletic Training*. 2002;37(1):63-70.
- **70.** Darby BA. Mentoring relationships and beginning nursing practice: A study of professional socialization. Paper presented at: Annual Meeting of the American Education Research Association; April 1996, 1996; New York, NY.
- **71.** Knight KL. Clinical Education: We aren't there yet but we're making progress! *Athletic Therapy Today.* 2002;7.
- **72.** Costello J. Learning from each other: Peer teaching and learning in student nurse training. *Nurse Education Today*. 1989;9:203-206.
- 73. Yates P, Cunningham J, Moyle W, Wollin J. Peer mentorship in clinical education: outcomes of a pilot programme for first year students. *Nurse Education Today*. 1997;17:508-514.

- **74.** Nemshick M, Shepard K. Physical therapy clinical education in a 2:1 student-instructor education model. *Physical Therapy*. 1996;76:968-981.
- **75.** Sheehan K. Email survey response rate: A review. *JCMC*. 2001;6(2).
- **76.** Boser JA, Green K. Research on mail surveys: Response rates and methods in relation to population group over time. Paper presented at: Annual Meeting of the Mid-South Educational Research Association, 1997; Memphis, TN.
- 77. Schalm RL, Kelloway EK. The relationship between response rate and effect size in occupational health psychology research. *Journal of Occupational Health Psychology*. 2001;6(2):160-163.
- **78.** Dey EL. Working with low survey response rates: The efficacy of weighting adjustments. *Research in Higher Education*. 1997;38(2):215-227.
- 79. Johnson T, Owens L. Survey Response Rate Reporting In The Professional Literature. *American Association for Public Opinion Research Section on Survey Research Methods*. [Internet site]. Available at: http://www.srl.uic.edu/publist/Conference/rr reporting.pdf#search=%27survey%2 Oresponse%20rates%20required%20for%20publication%20survey%20response%20rates%27. Accessed 02/02, 2005.

APPENDIX A

2001 EC EDUCATIONAL COMPETENCIES AFFECTIVE DOMAIN

RISK MANAGEMENT AND INJURY PREVENTION

- 1 Accepts the moral, professional, and legal responsibilities to conduct safe programs to minimize injury and illness risk factors for individuals involved in physical activity.
- 2 Acknowledges the importance of developing and implementing a thorough, comprehensive injury and illness prevention program.
- 3 Understands the need for cooperation among administrators, athletic personnel, certified athletic trainers, parents/guardians, other health care professionals, and athletes and others engaged in physical activity in the implementation of effective injury and illness prevention programs.
- 4 Appreciates and respects the role of athletic personnel and supervisors in injury and illness prevention programs.
- 5 Accepts moral, professional, and legal responsibility of conducting appropriate preparticipation examinations.
- 6 Accepts and respects the established guidelines for scheduling physical activity to prevent exposure to unsafe environmental conditions.
- 7 Appreciates the importance of the body's thermoregulatory mechanisms for acclimation and conditioning, fluid and electrolyte replacements, proper practice and competition attire, and weight loss.
- 8 Values the importance of collecting data on temperature, humidity, and other environmental conditions that can affect the human body when exercising in adverse weather conditions.
- 9 Appreciates and respects the concepts and theories pertaining to strength, flexibility, and endurance programs or routines.
- 10 Understands the values and benefits of correctly selecting and using prophylactic taping and wrapping or prophylactic padding.
- 11 Appreciates and respects the importance of correct and appropriate fitting in the use of protective equipment.
- 12 Appreciates and respects the principles and concepts of home, school, and work place ergonomics.

PATHOLOGY OF INJURIES AND ILLNESSES

- 1 Appreciates that an understanding of pathology is essential to care for athletes and others involved in physical activity.
- 2 Recognizes that physician consultation is a moral and ethical necessity in the diagnosis and treatment of pathologic conditions.
- 3 Accepts the moral and ethical responsibility of maintaining current knowledge of the pathologic conditions of athletes and others involved in physical activity.

- 4 Promotes accountability for moral and ethical decision-making in the treatment of pathologic conditions.
- 5 Understands how the use of exercise will improve the non-diseased organ system, thus enhancing overall wellness.

ASSESSMENT AND EVALUATION

- 1 Appreciates the importance of a systematic assessment process in the management of injuries and illness.
- 2 Appreciates the importance of documentation of assessment findings and results.
- 3 Accepts the role of the certified athletic trainer as a primary provider of assessment to the injuries and illnesses of athletes and others involved in physical activity.
- 4 Recognizes the initial clinical evaluation by the certified athletic trainer as an assessment and screening procedure, rather than as a diagnostic procedure.
- 5 Appreciates the practical importance of thoroughness in a clinical evaluation.
- 6 Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the evaluation and appropriate medical referral of injuries and illnesses of athletes and others involved in physical activity.
- 7 Values the skills and knowledge necessary to competently assess the injuries and illnesses of athletes and others involved in physical activity.

ACUTE CARE OF INJURIES AND ILLNESSES

- 1 Appreciates the medical-legal and ethical protocol governing the referral of injured and ill athletes and other individuals engaged in physical activity.
- 2 Appreciates the legal, moral, and ethical parameters that define the scope of first aid and emergency care, and values the proper role of the certified athletic trainer in providing this care.
- 3 Appreciates the roles and responsibilities of various community-based emergency care personnel (paramedics, emergency medical technicians, emergency room personnel).
- 4 Appreciates the role and function of various medical/paramedical specialties, and values their respective areas of expertise in the definitive treatment of acute injuries and illnesses.
- 5 Values the importance of certification in first aid and emergency care and cardiopulmonary resuscitation.
- 6 Appreciates the systematic approach to acute injury or illness of the secondary survey components of obtaining a history, inspection/observation, palpation, and using special tests.
- 8 Advocates the principles of proper splinting techniques to prevent further injury.
- 9 Appreciates the construction of various splinting devices and the appropriate uses for each.
- 10 Appreciates state laws, rules, and regulations governing the application of immobilization devices

- 11 Values the proper positioning and securing of a person with a suspected spinal injury onto a spine board or body splint, including preparatory positioning prior to placement of the spine board or body splint, as critical for prevention of further trauma.
- 12 Appreciates the need for leadership and teamwork when using a spine board or body splint.
- 13 Respects short-distance transportation techniques as a crucial means of moving an injured person.
- 14 Supports the application of cryotherapy, elevation, and compression as primary care for a non-threatening injury.
- 15 Accepts the approved aseptic and sterile methods for cleaning, treating, and bandaging wounds and for disposing of biohazardous waste.
- 16 Empathizes with individuals facing the daily challenges of using ambulatory aids.

PHARMACOLOGY

- 1 Recognizes that pharmacology applies to the immediate and ongoing care of injury and illness.
- 2 Recognizes the importance of pharmacological concepts in health care.
- 3 Accepts physician (or other qualified health care provider) and pharmacist consultation as a legal, moral, and ethical necessity in the prescription and dispensation of medication.
- 4 Appreciates the use of clinical references such as the PDR and clinical databases to identify medications.
- 5 Accepts the laws and regulations that govern the storage, transportation, and dispensation of all drugs.
- 6 Supports the moral and ethical behavior of athletic trainers in dealing with the issues of drug use and abuse in sports.
- 7 Accepts moral and ethical responsibility for maintaining current knowledge of the medications commonly prescribed to athletes and others involved in physical activity.
- 8 Advocates moral and ethical behavior of self and colleagues in dealing with issues of a pharmacological nature.
- 9 Promotes accountability for moral and ethical decision-making in pharmacological issues.

THERAPEUTIC MODALITIES

- 1 Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the use of therapeutic agents to treat, rehabilitate, and recondition athletes and others involved in physical activity.
- 2 Respects the role of attending physicians and other medical and allied health personnel in the use of therapeutic agents to treat, rehabilitate, and recondition athletes and others involved in physical activity.
- 3 Advocates the accepted medical protocol regarding the confidentiality of medical information relative to therapeutic modality treatments.

- 4 Initiates accepted medical protocol regarding therapeutic prescriptions.
- 5 Promotes the accepted medical protocol regarding health care referral in the rehabilitation and reconditioning process.

THERAPEUTIC EXERCISE

- 1 Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the treatment, rehabilitation, or reconditioning of athletes and others involved in physical activity.
- 2 Accepts the moral and ethical obligation to provide rehabilitation or reconditioning to athletes and others involved in physical activity to the fullest extent possible.
- 3 Respects the proper role of attending physicians and other medical and paramedical personnel in the treatment and rehabilitation or reconditioning of athletes and others involved in physical activity.
- 4 Respects accepted medical and paramedical protocols regarding the confidentiality of medical information, medical and therapeutic prescriptions, and health care referral as they relate to the rehabilitation or reconditioning process.

GENERAL MEDICAL CONDITIONS AND DISABILITIES

- 1 Supports the moral and ethical behavior of athletic trainers in issues dealing with diseases of athletics and physical activity.
- 2 Recognizes the moral and ethical responsibility of taking situational control in the containment of common contagious viral and infectious diseases.
- 3 Accepts the roles of medical and allied health personnel in the referral, management, and treatment of athletes and others involved in physical activity suffering from general medical conditions.

NUTRITIONAL ASPECTS

- 1 Appreciates the role of proper nutrition in the health care of athletes and others involved in physical activity.
- 2 Respects the various recognized position papers that discuss nutrition wellness.
- 3 Appreciates the long-term effects of disordered eating, bone density loss, and secondary amenorrhea on the skeletal health of the physically active.
- 4 Recognizes the need for and implements proper referral for eating disorders.

PSYCHOSOCIAL INTERVENTION AND REFERRAL

- 1 Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in providing health care information, intervention, and referral.
- 2 Accepts the responsibility to provide health care information, intervention, and referral consistent with the certified athletic trainer's professional training.

- 3 Recognizes the certified athletic trainer's role as a liaison between the physically active, athletic personnel, health care professionals, parents/guardians, and the public.
- 5 Accepts the moral and ethical responsibility to intervene in situations of suspected or known use and/or abuse of legal and illegal drugs and chemicals.
- 6 Accepts the moral and ethical responsibility to intervene in situations of mental, emotional, and/or personal/social conflict.
- 7 Recognizes athletes and other physically individuals as deserving of quality professional health care.
- 8 Accepts the individual's physical complaint(s) without personal bias or prejudice.
- 9 Respects the various social and cultural attitudes, beliefs, and values regarding health care practices when caring for patients.
- 10 Accepts the role of social support during the injury rehabilitation process.

HEALTH CARE ADMINISTRATION

- 1 Appreciates the roles and responsibilities of medical and allied health care providers, and respects the systems that each provider works within.
- 2 Appreciates the roles and functions of various medical and paramedical specialties as well as their respective areas of expertise in the acute care of injuries and illnesses to athletes and others involved in physical activity.
- 3 Values the need for sideline emergency care supplies and equipment as deemed necessary for all athletic training settings.
- 4 Appreciates the importance of an emergency action plan that is tailored for a specific venue or setting.
- 5 Accepts the value of a common medical language and terminology to communicate within and between the health professions.
- 6 Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the administration and implementation of health care delivery systems.
- 7 Appreciates the roles and relationship between the NATA, NATABOC/NOCA, NCCA, and JRC-AT/CAAHEP.
- 8 Recognizes and accepts the need for organizing and conducting health care programs for athletes and other physically active individuals on the basis of sound administrative policies and procedures.
- 9 Accepts the responsibility for completing the necessary paperwork and maintaining the records associated with the administration of health care programs.
- 10 Respects the roles and cooperation of medical personnel, administrators, and other staff members in the organization and administration of athletic training service programs.
- 11 Recognizes and accepts the importance of good public relations with the media (radio, TV, press), the general public, other medical and allied health care personnel, and legislators.
- 12 Recognizes the certified athletic trainer's role as a liaison between athletes, physically active individuals, caretakers, employers, physicians, coaches, other health

care professionals, and any individual who may be involved with the care provided by the certified athletic trainer.

PROFESSIONAL DEVELOPMENT AND RESPONSIBILITIES

- 1 Accepts the professional responsibility to satisfy certified athletic trainers' continuing education requirements.
- 2 Appreciates the need for and the process and benefits of athletic training regulatory acts (registration, licensure, certification).
- 3 Realizes that the state regulatory acts regarding the practice of athletic training vary from state to state.
- 4 Understands the consequences of noncompliance with regulatory athletic training practice acts.
- 5 Accepts the professional, historical, ethical, and organizational structures that define the proper roles and responsibilities of the certified athletic trainer in providing health care to athletes and others involved in physical activity.
- 6 Defends the moral and ethical responsibility to intervene in situations that conflict with NATA standards.
- 7 Accepts the function of professional organization position statements that relate to athletic training practice.
- 8 Advocates the NATA as an allied health professional organization dedicated to the care of athletes and others involved in physical activity.
- 9 Respects the role and responsibilities of the other health care professions.
- 10 Appreciates the dynamic nature of issues and concerns as they relate to the health care of athletes and others involved in physical activity.
- 11 Defends the responsibility to interpret and promote athletic training as a professional discipline among allied-health professional groups and the general public.
- 12 Accepts the responsibility to enhance the professional growth of athletic training students, colleagues, and peers through a continual sharing of knowledge skills, values, and professional recognition.
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APPENDIX B

LETTER AND SURVEY SENT TO ATHLETIC TRAINING EDUCATORS

Dear Athletic training educator,

You are being invited to participate in the development of a survey to measure the perceptions of entry level athletic trainers' perceptions in the role of clinical experience in the development of the affective domain. Please rank the affective domain competencies below according to their importance in the practice of athletic training. (1 being the most important) Rank each practice domain separately.

Thank you for your time and consideration. If you have any questions please feel free to contact me at 336-278-5883 or email sstevens2@elon.edu. When finished please return the completed document in the self-addressed envelope provided.

Thanks again,

Sue Stevens

2001 EC Educational Competencies Affective Domain

RISK MANAGEMENT AND INJURY PREVENTION

Understands the values and benefits of correctly selecting and using prophylactic
taping and wrapping or prophylactic padding.
Appreciates and respects the importance of correct and appropriate fitting in the
use of protective equipment.
Appreciates and respects the principles and concepts of home, school, and work
place ergonomics.

PATHOLOGY OF INJURIES AND ILLNESSES

Appreciates that an understanding of pathology is essential to care for athletes and
others involved in physical activity.
Recognizes that physician consultation is a moral and ethical necessity in the
diagnosis and treatment of pathologic conditions.
Accepts the moral and ethical responsibility of maintaining current knowledge of
the pathologic conditions of athletes and others involved in physical activity.
Promotes accountability for moral and ethical decision-making in the treatment of
pathologic conditions.
Understands how the use of exercise will improve the non-diseased organ system,
thus enhancing overall wellness.

PHARMACOLOGY

Recognizes that pharmacology applies to the immediate and ongoing care of
injury and illness.
Recognizes the importance of pharmacological concepts in health care.
Accepts physician (or other qualified health care provider) and pharmacist
consultation as a legal, moral, and ethical necessity in the prescription and
dispensation of medication.
Appreciates the use of clinical references such as the PDR and clinical databases
to identify medications.
Accepts the laws and regulations that govern the storage, transportation, and
dispensation of all drugs.
Supports the moral and ethical behavior of athletic trainers in dealing with the
issues of drug use and abuse in sports.
Accepts moral and ethical responsibility for maintaining current knowledge of the
medications commonly prescribed to athletes and others involved in physical
activity.
Advocates moral and ethical behavior of self and colleagues in dealing with
issues of a pharmacological nature.
Promotes accountability for moral and ethical decision making in
pharmacological issues.

THERAPEUTIC MODALITIES

Accepts the professional, ethical, and legal parameters that define the proper role
of the certified athletic trainer in the use of therapeutic agents to treat, rehabilitate,
and recondition athletes and others involved in physical activity.
Respects the role of attending physicians and other medical and allied health
personnel in the use of therapeutic agents to treat, rehabilitate, and recondition
athletes and others involved in physical activity.
Advocates the accepted medical protocol regarding the confidentiality of medical
information relative to therapeutic modality treatments.
Initiates accepted medical protocol regarding therapeutic prescriptions.
Promotes the accepted medical protocol regarding health care referral in the
rehabilitation and reconditioning process.

ASSESSMENT AND EVALUATION

Appreciates the importance of a systematic assessment process in the management
of injuries and illness.
Appreciates the importance of documentation of assessment findings and results.
Accepts the role of the certified athletic trainer as a primary provider of
assessment to the injuries and illnesses of athletes and others involved in physical
activity.
Recognizes the initial clinical evaluation by the certified athletic trainer as an
assessment and screening procedure, rather than as a diagnostic procedure.
Appreciates the practical importance of thoroughness in a clinical evaluation.
Accepts the professional, ethical, and legal parameters that define the proper role
of the certified athletic trainer in the evaluation and appropriate medical referral of
injuries and illnesses of athletes and others involved in physical activity.
Values the skills and knowledge necessary to competently assess the injuries and
illnesses of athletes and others involved in physical activity.

ACUTE CARE OF INJURIES AND ILLNESSES

Appreciates the medical legal and ethical protocol governing the referral of
injured and ill athletes and other individuals engaged in physical activity.
Appreciates the legal, moral, and ethical parameters that define the scope of first
aid and emergency care, and values the proper role of the certified athletic trainer
in providing this care.
Appreciates the roles and responsibilities of various community based emergency
care personnel (paramedics, emergency medical technicians, emergency room
personnel).
Appreciates the role and function of various medical/paramedical specialties, and
values their respective areas of expertise in the definitive treatment of acute
injuries and illnesses.
Values the importance of certification in first aid and emergency care and

cardiopulmonary resuscitation.
Appreciates the systematic approach to acute injury or illness of the secondary
survey components of obtaining a history, inspection/observation, palpation, and
using special tests.
Advocates the principles of proper splinting techniques to prevent further injury.
Appreciates the construction of various splinting devices and the appropriate uses
for each.
Appreciates state laws, rules, and regulations governing the application of
immobilization devices
Values the proper positioning and securing of a person with a suspected spinal
injury onto a spine board or body splint, including preparatory positioning prior to
placement of the spine board or body splint, as critical for prevention of further
trauma.
Appreciates the need for leadership and teamwork when using a spine board or
body splint.
Respects short distance transportation techniques as a crucial means of moving an
injured person.
Supports the application of cryotherapy, elevation, and compression as primary
care for a non threatening injury.
Accepts the approved aseptic and sterile methods for cleaning, treating, and
bandaging wounds and for disposing of biohazardous waste.
Empathizes with individuals facing the daily challenges of using ambulatory aids.

THERAPEUTIC EXERCISE

Accepts the professional, ethical, and legal parameters that define the proper role
of the certified athletic trainer in the treatment, rehabilitation, or reconditioning of
athletes and others involved in physical activity.
Accepts the moral and ethical obligation to provide rehabilitation or
reconditioning to athletes and others involved in physical activity to the fullest
extent possible.
Respects the proper role of attending physicians and other medical and
Respects the proper role of attending physicians and other medical and paramedical personnel in the treatment and rehabilitation or reconditioning of
paramedical personnel in the treatment and rehabilitation or reconditioning of
paramedical personnel in the treatment and rehabilitation or reconditioning of athletes and others involved in physical activity.

GENERAL MEDICAL CONDITIONS AND DISABILITIES

Supports the moral and ethical behavior of athletic trainers in issues dealing with
diseases of athletics and physical activity.
Recognizes the moral and ethical responsibility of taking situational control in the
containment of common contagious viral and infectious diseases.
Accepts the roles of medical and allied health personnel in the referral,

management, and treatment of athletes and others involved in physical activity suffering from general medical conditions.

NUTRITIONAL ASPECTS

Appreciates the role of proper nutrition in the health care of athletes and others
involved in physical activity.
Respects the various recognized position papers that discuss nutrition wellness.
Appreciates the long term effects of disordered eating, bone density loss, and
secondary amenorrhea on the skeletal health of the physically active.
Recognizes the need for and implements proper referral for eating disorders.

PSYCHOSOCIAL INTERVENTION AND REFERRAL

Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in providing health care information, intervention, and referral.
Accepts the responsibility to provide health care information, intervention, and referral consistent with the certified athletic trainer's professional training.
Recognizes the certified athletic trainer's role as a liaison between the physically active, athletic personnel, health care professionals, parents/guardians, and the public.
Accepts the moral and ethical responsibility to intervene in situations of suspected or known use and/or abuse of legal and illegal drugs and chemicals.
Accepts the moral and ethical responsibility to intervene in situations of mental, emotional, and/or personal/social conflict.
Recognizes athletes and other physically individuals as deserving of quality professional health care.
Accepts the individual's physical complaint(s) without personal bias or prejudice.
Respects the various social and cultural attitudes, beliefs, and values regarding health care practices when caring for patients.
Accepts the role of social support during the injury rehabilitation process.

HEALTH CARE ADMINISTRATION

Appreciates the roles and responsibilities of medical and allied health care
providers, and respects the systems that each provider works within.
Appreciates the roles and functions of various medical and paramedical specialties
as well as their respective areas of expertise in the acute care of injuries and
illnesses to athletes and others involved in physical activity.
Values the need for sideline emergency care supplies and equipment as deemed
necessary for all athletic training settings.
Appreciates the importance of an emergency action plan that is tailored for a
specific venue or setting.
Accepts the value of a common medical language and terminology to
communicate within and between the health professions.

Accepts the professional, ethical, and legal parameters that define the proper role
of the certified athletic trainer in the administration and implementation of health
care delivery systems.
Appreciates the roles and relationship between the NATA, NATABOC/NOCA,
NCCA, and JRC-AT/CAAHEP.
Recognizes and accepts the need for organizing and conducting health care
programs for athletes and other physically active individuals on the basis of sound
administrative policies and procedures.
Accepts the responsibility for completing the necessary paperwork and
maintaining the records associated with the administration of health care
programs.
Respects the roles and cooperation of medical personnel, administrators, and other
staff members in the organization and administration of athletic training service
programs.
Recognizes and accepts the importance of good public relations with the media
(radio, TV, press), the general public, other medical and allied health care
personnel, and legislators.
Recognizes the certified athletic trainer's role as a liaison between athletes,
physically active individuals, caretakers, employers, physicians, coaches, other
health care professionals, and any individual who may be involved with the care
provided by the certified athletic trainer.

PROFESSIONAL DEVELOPMENT AND RESPONSIBILITIES

Accepts the professional responsibility to satisfy certified athletic trainers'
continuing education requirements.
Appreciates the need for and the process and benefits of athletic training regulatory
acts (registration, licensure, certification).
Realizes that the state regulatory acts regarding the practice of athletic training
vary from state to state.
Understands the consequences of noncompliance with regulatory athletic training
practice acts.
Accepts the professional, historical, ethical, and organizational structures that
define the proper roles and responsibilities of the certified athletic trainer in
providing health care to athletes and others involved in physical activity.
Defends the moral and ethical responsibility to intervene in situations that conflict
with NATA standards.
Accepts the function of professional organization position statements that relate to
athletic training practice.
Advocates the NATA as an allied health professional organization dedicated to the
care of athletes and others involved in physical activity.
Respects the role and responsibilities of the other health care professions.
Appreciates the dynamic nature of issues and concerns as they relate to the health
care of athletes and others involved in physical activity.

Defends the responsibility to interpret and promote athletic training as a professional discipline among allied health professional groups and the general public.

Accepts the responsibility to enhance the professional growth of athletic training students, colleagues, and peers through a continual sharing of knowledge skills, values, and professional recognition.

APPENDIX C

RESULTS FROM SURVEY SENT TO ATHLETIC TRAINING EDUCATORS

RISK MANAGEMENT AND INJURY PREVENTION

	WITH THE BUTTON
10	Accepts the moral, professional, and legal responsibilities to conduct safe
	programs to minimize injury and illness risk factors for individuals involved in
	physical activity.
21	Acknowledges the importance of developing and implementing a thorough,
	comprehensive injury and illness prevention program.
14	Understands the need for cooperation among administrators, athletic personnel,
	certified athletic trainers, parents/guardians, other health care professionals, and
	athletes and others engaged in physical activity in the implementation of effective
	injury and illness prevention programs.
26	Appreciates and respects the role of athletic personnel and supervisors in injury
	and illness prevention programs.
27	Accepts moral, professional, and legal responsibility of conducting appropriate
	pre-participation examinations.
24	Accepts and respects the established guidelines for scheduling physical activity to
	prevent exposure to unsafe environmental conditions.
21	Appreciates the importance of the body's thermoregulatory mechanisms for
	acclimation and conditioning, fluid and electrolyte replacements, proper practice
	and competition attire, and weight loss.
36	Values the importance of collecting data on temperature, humidity, and other
	environmental conditions that can affect the human body when exercising in
	adverse weather conditions.
14	Appreciates and respects the concepts and theories pertaining to strength,
	flexibility, and endurance programs or routines.
30	Understands the values and benefits of correctly selecting and using prophylactic
	taping and wrapping or prophylactic padding.
34	Appreciates and respects the importance of correct and appropriate fitting in the
	use of protective equipment.
48	Appreciates and respects the principles and concepts of home, school, and work
	place ergonomics.

PATHOLOGY OF INJURIES AND ILLNESSES

5	Appreciates that an understanding of pathology is essential to care for athletes
	and others involved in physical activity.
11	Recognizes that physician consultation is a moral and ethical necessity in the
	diagnosis and treatment of pathologic conditions.
13	Accepts the moral and ethical responsibility of maintaining current knowledge of
	the pathologic conditions of athletes and others involved in physical activity.
14	Promotes accountability for moral and ethical decision-making in the treatment of
	pathologic conditions.
17	Understands how the use of exercise will improve the non-diseased organ system,
	thus enhancing overall wellness.

PHARMACOLOGY

15	Recognizes that pharmacology applies to the immediate and ongoing care of
15	injury and illness.
4.5	, , , , , , , , , , , , , , , , , , ,
17	Recognizes the importance of pharmacological concepts in health care.
19	Accepts physician (or other qualified health care provider) and pharmacist
	consultation as a legal, moral, and ethical necessity in the prescription and
	dispensation of medication.
31	Appreciates the use of clinical references such as the PDR and clinical databases
	to identify medications.
24	Accepts the laws and regulations that govern the storage, transportation, and
	dispensation of all drugs.
14	Supports the moral and ethical behavior of athletic trainers in dealing with the
	issues of drug use and abuse in sports.
20	Accepts moral and ethical responsibility for maintaining current knowledge of
	the medications commonly prescribed to athletes and others involved in physical
	activity.
20	Advocates moral and ethical behavior of self and colleagues in dealing with
	issues of a pharmacological nature.
22	Promotes accountability for moral and ethical decision making in
	pharmacological issues.

THERAPEUTIC MODALITIES

5	Accepts the professional, ethical, and legal parameters that define the proper role
	of the certified athletic trainer in the use of therapeutic agents to treat, rehabilitate,
	and recondition athletes and others involved in physical activity.
10	Respects the role of attending physicians and other medical and allied health
	personnel in the use of therapeutic agents to treat, rehabilitate, and recondition
	athletes and others involved in physical activity.
12	Advocates the accepted medical protocol regarding the confidentiality of medical
	information relative to therapeutic modality treatments.
17	Initiates accepted medical protocol regarding therapeutic prescriptions.

Promotes the accepted medical protocol regarding health care referral in the rehabilitation and reconditioning process.

ASSESSMENT AND EVALUATION

14	Appreciates the importance of a systematic assessment process in the
	management of injuries and illness.
20	Appreciates the importance of documentation of assessment findings and results.
9	Accepts the role of the certified athletic trainer as a primary provider of
	assessment to the injuries and illnesses of athletes and others involved in physical
	activity.
16	Recognizes the initial clinical evaluation by the certified athletic trainer as an
	assessment and screening procedure, rather than as a diagnostic procedure.
19	Appreciates the practical importance of thoroughness in a clinical evaluation.
17	Accepts the professional, ethical, and legal parameters that define the proper role
	of the certified athletic trainer in the evaluation and appropriate medical referral
	of injuries and illnesses of athletes and others involved in physical activity.
17	Values the skills and knowledge necessary to competently assess the injuries and
	illnesses of athletes and others involved in physical activity.

ACUTE CARE OF INJURIES AND ILLNESSES

41	Appreciates the medical legal and ethical protocol governing the referral of
	injured and ill athletes and other individuals engaged in physical activity.
17	Appreciates the legal, moral, and ethical parameters that define the scope of first
	aid and emergency care, and values the proper role of the certified athletic trainer
	in providing this care.
28	Appreciates the roles and responsibilities of various community based
	emergency care personnel (paramedics, emergency medical technicians,
	emergency room personnel).
15	Appreciates the role and function of various medical/paramedical specialties, and
	values their respective areas of expertise in the definitive treatment of acute
	injuries and illnesses.
32	Values the importance of certification in first aid and emergency care and
	cardiopulmonary resuscitation.
14	Appreciates the systematic approach to acute injury or illness of the secondary
	survey components of obtaining a history, inspection/observation, palpation, and
	using special tests.
39	Advocates the principles of proper splinting techniques to prevent further injury.
41	Appreciates the construction of various splinting devices and the appropriate
	uses for each.
38	Appreciates state laws, rules, and regulations governing the application of
	immobilization devices
21	Values the proper positioning and securing of a person with a suspected spinal
	injury onto a spine board or body splint, including preparatory positioning prior

	to placement of the spine board or body splint, as critical for prevention of further
	trauma.
21	Appreciates the need for leadership and teamwork when using a spine board or
	body splint.
46	Respects short distance transportation techniques as a crucial means of moving
	an injured person.
34	Supports the application of cryotherapy, elevation, and compression as primary
	care for a nonhreatening injury.
33	Accepts the approved aseptic and sterile methods for cleaning, treating, and
	bandaging wounds and for disposing of biohazardous waste.
60	Empathizes with individuals facing the daily challenges of using ambulatory
	aids.

THERAPEUTIC EXERCISE

10	1 - Accepts the professional, ethical, and legal parameters that define the proper
	role of the certified athletic trainer in the treatment, rehabilitation, or
	reconditioning of athletes and others involved in physical activity.
4	Accepts the moral and ethical obligation to provide rehabilitation or
	reconditioning to athletes and others involved in physical activity to the fullest
	extent possible.
11	Respects the proper role of attending physicians and other medical and
	paramedical personnel in the treatment and rehabilitation or reconditioning of
	athletes and others involved in physical activity.
15	Respects accepted medical and paramedical protocols regarding the
	confidentiality of medical information, medical and therapeutic prescriptions, and
	health care referral as they relate to the rehabilitation or reconditioning process.

GENERAL MEDICAL CONDITIONS AND DISABILITIES

9	Supports the moral and ethical behavior of athletic trainers in issues dealing with
	diseases of athletics and physical activity.
8	Recognizes the moral and ethical responsibility of taking situational control in the
	containment of common contagious viral and infectious diseases.
7	Accepts the roles of medical and allied health personnel in the referral,
	management, and treatment of athletes and others involved in physical activity
	suffering from general medical conditions.

NUTRITIONAL ASPECTS

7	Appreciates the role of proper nutrition in the health care of athletes and others
	involved in physical activity.
14	Respects the various recognized position papers that discuss nutrition wellness.
9	Appreciates the long term effects of disordered eating, bone density loss, and
	secondary amenorrhea on the skeletal health of the physically active.
10	Recognizes the need for and implements proper referral for eating disorders.

PSYCHOSOCIAL INTERVENTION AND REFERRAL

9	Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in providing health care information, intervention, and referral.
6	Accepts the responsibility to provide health care information, intervention, and referral consistent with the certified athletic trainer's professional training.
16	Recognizes the certified athletic trainer's role as a liaison between the physically active, athletic personnel, health care professionals, parents/guardians, and the public.
24	Accepts the moral and ethical responsibility to intervene in situations of suspected or known use and/or abuse of legal and illegal drugs and chemicals.
28	Accepts the moral and ethical responsibility to intervene in situations of mental, emotional, and/or personal/social conflict.
26	Recognizes athletes and other physically individuals as deserving of quality professional health care.
22	Accepts the individual's physical complaint(s) without personal bias or prejudice.
24	Respects the various social and cultural attitudes, beliefs, and values regarding health care practices when caring for patients.
25	Accepts the role of social support during the injury rehabilitation process.

HEALTH CARE ADMINISTRATION

21	Appreciates the roles and responsibilities of medical and allied health care
	providers, and respects the systems that each provider works within.
19	Appreciates the roles and functions of various medical and paramedical
	specialties as well as their respective areas of expertise in the acute care of
	injuries and illnesses to athletes and others involved in physical activity.
28	Values the need for sideline emergency care supplies and equipment as deemed
	necessary for all athletic training settings.
11	Appreciates the importance of an emergency action plan that is tailored for a
	specific venue or setting.
45	Accepts the value of a common medical language and terminology to
	communicate within and between the health professions.
6	Accepts the professional, ethical, and legal parameters that define the proper role
	of the certified athletic trainer in the administration and implementation of health
	care delivery systems.
42	Appreciates the roles and relationship between the NATA, NATABOC/NOCA,
	NCCA, and JRC-AT/CAAHEP.
26	Recognizes and accepts the need for organizing and conducting health care
	programs for athletes and other physically active individuals on the basis of
	sound administrative policies and procedures.
26	Accepts the responsibility for completing the necessary paperwork and
	maintaining the records associated with the administration of health care
	programs.
	programs.

25	Respects the roles and cooperation of medical personnel, administrators, and
	other staff members in the organization and administration of athletic training
	service programs.
41	Recognizes and accepts the importance of good public relations with the media
	(radio, TV, press), the general public, other medical and allied health care
	personnel, and legislators.
21	Recognizes the certified athletic trainer's role as a liaison between athletes,
	physically active individuals, caretakers, employers, physicians, coaches, other
	health care professionals, and any individual who may be involved with the care
	provided by the certified athletic trainer.

PROFESSIONAL DEVELOPMENT AND RESPONSIBILITIES

23	Accepts the professional responsibility to satisfy certified athletic trainers'
	continuing education requirements.
19	Appreciates the need for and the process and benefits of athletic training
	regulatory acts (registration, licensure, certification).
33	Realizes that the state regulatory acts regarding the practice of athletic training
	vary from state to state.
36	Understands the consequences of noncompliance with regulatory athletic training
	practice acts.
16	Accepts the professional, historical, ethical, and organizational structures that
	define the proper roles and responsibilities of the certified athletic trainer in
	providing health care to athletes and others involved in physical activity.
34	Defends the moral and ethical responsibility to intervene in situations that
	conflict with NATA standards.
37	Accepts the function of professional organization position statements that relate
	to athletic training practice.
19	Advocates the NATA as an allied health professional organization dedicated to
	the care of athletes and others involved in physical activity.
29	Respects the role and responsibilities of the other health care professions.
33	Appreciates the dynamic nature of issues and concerns as they relate to the health
	care of athletes and others involved in physical activity.
10	Defends the responsibility to interpret and promote athletic training as a
	professional discipline among allied health professional groups and the general
	public.
23	Accepts the responsibility to enhance the professional growth of athletic training
	students, colleagues, and peers through a continual sharing of knowledge skills,
	values, and professional recognition.

APPENDIX D

SURVEY INSTRUMENT FOR PILOT ONE

Dear Certified Athletic Trainer,

You are being invited to participate in a web based survey entitled Entry-level athletic trainers' perceptions on the role of clinical experience in the development of the affective domain. This survey is a pilot study which will be considered as part of my doctoral dissertation. The purpose of the study is to measure the reliability of my proposed instrument You must have graduated from Elon's CAAHEP accredited entry-level athletic training education program, passed the NATABOC entry-level certification exam between April 1999 and April 2002 and be employed as an athletic trainer in a recognized practice setting (ie. College/university, high school, clinic, industry, professional sports) to participate in this study. A graduate assistantship in one of these practice settings is acceptable.

The survey consists of demographic questions and questions relating to the importance of structured clinical education and unstructured field experience on the development of selected affective domain competencies. The time commitment is approximately 15 minutes.

To participate you need access to the internet. You will access the link provided below, answer all questions honestly and submit. All of your responses will be confidential. Filling out the survey and submitting your responses serves as your informed consent for participation. Your participation is entirely voluntary and you may withdrawal at any time by discontinuing the survey without submitting the data. This survey and consent letter have been approved by the University of North Carolina at Greensboro Institutional Review Board, which insures that research involving people follows federal regulations.

I intend to submit the results of this study for publication in an aggregate form only. If you would like a copy of the projects results please email me with your request for information. Also if you have any questions regarding this project feel free to contact me either by email or at 336-278-5883. If you have any questions about your rights as a participant in this project please call Dr. Beverly Maddox-Britt at 336-334-5878.

Thank you for your time and consideration,

Sue Stevens Sstevens2@elon.edu 336-278-5883

Click this link to be taken to the survey

http://www.elon.edu/irweb/adomain/adomain.html

Entry level athletic trainers' perceptions about the role of field experience in the development of the affective domain

Directions

<u>Clinical Education</u> is when you are learning, practicing, or being assessed on a clinical proficiency by an Approved Clinical Instructor.¹ Please rate how important **clinical education** was in your development of the following selected competencies.

Affective domain education competency ²	Not important	Somewhat important	Important	Very important	Extremely important
Accepts the moral,					
professional, and legal					
responsibilities to					
conduct safe programs					
to minimize injury and					
illness risk factors for					
individuals involved in					
physical activity					
Understands the need					
for cooperation among					
administrators, athletic					
personnel, certified					
athletic trainers,					
parents/guardians,					
other health care					
professionals, and					
athletes and others					
engaged in physical					
activity in the					
implementation of					
effective injury and					
illness prevention					
programs.					
Appreciates and					
respects the concepts					
and theories pertaining					
to strength, flexibility,					
and endurance					

		Т	Т	Т
programs or routines.				
Appreciates that an				
understanding of				
pathology is essential				
to care for athletes and				
others involved in				
physical activity.				
Recognizes that				
physician consultation				
is a moral and ethical				
necessity in the				
diagnosis and				
treatment of				
pathologic conditions.				
Accepts the moral and	 			
ethical responsibility				
of maintaining current				
knowledge of the				
pathologic conditions				
of athletes and others				
involved in physical				
activity.				
Recognizes that				
pharmacology applies				
to the immediate and				
ongoing care of injury				
and illness.				
Recognizes the				
importance of				
pharmacological				
concepts in health				
care.				
Accepts moral and				
ethical responsibility				
for maintaining current				
knowledge of the				
medications				
commonly prescribed				
to athletes and others				
involved in physical				
activity.				
Accepts the				
professional, ethical,				
and legal parameters				

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that define the proper			
role of the certified			
athletic trainer in the			
use of therapeutic			
agents to treat,			
rehabilitate, and			
recondition athletes			
and others involved in			
physical activity.			
Respects the role of			
attending physicians			
and other medical and			
allied health personnel			
in the use of			
therapeutic agents to			
treat, rehabilitate, and			
recondition athletes			
and others involved in			
physical activity.			
Advocates the			
accepted medical			
protocol regarding the			
confidentiality of			
medical information			
relative to therapeutic			
modality treatments.			
Recognizes the initial			
clinical evaluation by			
the certified athletic			
trainer as an			
assessment and			
screening procedure,			
rather than as a			
diagnostic procedure.			
Appreciates the			
importance of a			
systematic assessment			
process in the			
management of			
injuries and illness.			
Accepts the role of the			
certified athletic			
trainer as a primary			
provider of assessment			
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to the injuries and			
illnesses of athletes			
and others involved in			
physical activity.			
Appreciates the legal,			
moral, and ethical			
parameters that define			
the scope of first aid			
and emergency care,			
and values the proper			
role of the certified			
athletic trainer in			
providing this care.			
Appreciates the role			
and function of various			
medical/paramedical			
specialties, and values			
their respective areas			
of expertise in the			
definitive treatment of			
acute injuries and			
illnesses.			
Appreciates the			
systematic approach to			
acute injury or illness			
of the secondary			
survey components of			
obtaining a history,			
inspection/observation,			
palpation, and using			
special tests.			
Accepts the			
professional, ethical,			
and legal parameters			
that define the proper			
role of the certified			
athletic trainer in the			
treatment,			
rehabilitation, or			
reconditioning of			
athletes and others			
involved in physical			
activity.			
Accepts the moral and			
recepts the moral and			

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ethical obligation to			
provide rehabilitation			
or reconditioning to			
athletes and others			
involved in physical			
activity to the fullest			
extent possible.			
Respects the proper			
role of attending			
physicians and other			
medical and			
paramedical personnel			
in the treatment and			
rehabilitation or			
reconditioning of			
athletes and others			
involved in physical			
activity.			
Supports the moral			
and ethical behavior of			
athletic trainers in			
issues dealing with			
diseases of athletics			
and physical activity.			
Recognizes the moral			
and ethical			
responsibility of taking			
situational control in			
the containment of			
common contagious			
viral and infectious			
diseases.			
Accepts the roles of			
medical and allied			
health personnel in the			
referral, management,			
and treatment of			
athletes and others			
involved in physical			
activity suffering from			
general medical			
conditions.			
Appreciates the role			
of proper nutrition in			
or brober manimon in			

the health care of			
athletes and others			
involved in physical			
activity.			
Appreciates the long-			
term effects of			
disordered eating,			
bone density loss, and			
secondary amenorrhea			
on the skeletal health			
of the physically			
active.			
Recognizes the need			
for and implements			
proper referral for			
eating disorders.			
Accepts the			
professional, ethical,			
and legal parameters			
that define the proper			
role of the certified			
athletic trainer in			
providing health care			
information,			
intervention, and			
referral.			
Accepts the			
responsibility to			
provide health care			
information,			
intervention, and			
referral consistent with			
the certified athletic			
trainer's professional			
training.			
Recognizes the			
certified athletic			
trainer's role as a			
liaison between the			
physically active,			
athletic personnel,			
health care			
professionals,			
parents/guardians, and			
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the public.			
Appreciates the roles			
and functions of			
various medical and			
paramedical specialties			
as well as their			
respective areas of			
expertise in the acute			
care of injuries and			
illnesses to athletes			
and others involved in			
physical activity.			
Appreciates the			
importance of an			
emergency action plan			
that is tailored for a			
specific venue or			
setting.			
Accepts the			
professional, ethical,			
and legal parameters			
that define the proper			
role of the certified			
athletic trainer in the			
administration and			
implementation of			
health care delivery			
systems.			
Appreciates the need			
for and the process and			
benefits of athletic			
training regulatory acts			
(registration, licensure,			
certification).			
Accepts the			
professional,			
historical, ethical, and			
organizational			
structures that define			
the proper roles and			
responsibilities of the			
certified athletic			
trainer in providing			
health care to athletes			
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and others involved in			
physical activity.			
Advocates the NATA			
as an allied health			
professional			
organization dedicated			
to the care of athletes			
and others involved in			
physical activity.			
Defends the			
responsibility to			
interpret and promote			
athletic training as a			
professional discipline			
among allied			
health professional			
groups and the general			
public.			

Field Experience is unstructured learning or practice of athletic training skills in a real world setting under the supervision of a clinical instructor. ¹ The field experience is the time that you are actively working with a sports team covering practices and competitions or pre and post practice treatments. This is an exposure to the daily activities of certified athletic trainers and other medical providers. Please rate how important **field experience** was in your development of the following selected competencies.

Affective domain	Not	Somewhat	Important	Very	Extremely
education	important	important		important	important
competency ²					
Accepts the moral,					
professional, and legal					
responsibilities to					
conduct safe programs					
to minimize injury and					
illness risk factors for					
individuals involved in					
physical activity					
Understands the need					
for cooperation among					
administrators, athletic					
personnel, certified					
athletic trainers,					
parents/guardians,					

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other health care				
professionals, and				
athletes and others				
engaged in physical				
activity in the				
implementation of				
effective injury and				
illness prevention				
programs.				
Appreciates and				
respects the concepts				
and theories pertaining				
to strength, flexibility,				
and endurance				
programs or routines.				
Appreciates that an				
understanding of				
pathology is essential				
to care for athletes and				
others involved in				
physical activity.				
Recognizes that				
physician consultation				
is a moral and ethical				
necessity in the				
diagnosis and				
treatment of				
pathologic conditions.				
Accepts the moral and				
ethical responsibility				
of maintaining current				
knowledge of the				
pathologic conditions				
of athletes and others				
involved in physical				
activity.				
Recognizes that				
pharmacology applies				
to the immediate and				
ongoing care of injury				
and illness.				
Recognizes the				
importance of				
pharmacological				
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concepts in health		
care.		
Accepts moral and		
ethical responsibility		
for maintaining current		
knowledge of the		
medications		
commonly prescribed		
to athletes and others		
involved in physical		
activity.		
Accepts the		
professional, ethical,		
and legal parameters		
that define the proper		
role of the certified		
athletic trainer in the		
use of therapeutic		
agents to treat,		
rehabilitate, and		
recondition athletes		
and others involved in		
physical activity.		
Respects the role of		
attending physicians		
and other medical and		
allied health personnel		
in the use of		
therapeutic agents to		
treat, rehabilitate, and		
recondition athletes		
and others involved in		
physical activity.		
Advocates the		
accepted medical		
protocol regarding the		
confidentiality of		
medical information		
relative to therapeutic		
modality treatments.		
Recognizes the initial		
clinical evaluation by		
the certified athletic		
trainer as an		

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assessment and			
screening procedure,			
rather than as a			
diagnostic procedure.			
Appreciates the			
importance of a			
systematic assessment			
process in the			
management of			
injuries and illness.			
Accepts the role of the			
certified athletic			
trainer as a primary			
provider of assessment			
to the injuries and			
illnesses of athletes			
and others involved in			
physical activity.			
Appreciates the legal,			
moral, and ethical			
parameters that define			
the scope of first aid			
and emergency care,			
and values the proper			
role of the certified			
athletic trainer in			
providing this care.			
Appreciates the role			
and function of various			
medical/paramedical			
specialties, and values			
their respective areas			
of expertise in the			
definitive treatment of			
acute injuries and			
illnesses.	 	 	
Appreciates the		 	
systematic approach to			
acute injury or illness			
of the secondary			
survey components of			
obtaining a history,			
inspection/observation,			
palpation, and using			
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special tests.				
Accepts the				
professional, ethical,				
and legal parameters				
that define the proper				
role of the certified				
athletic trainer in the				
treatment,				
rehabilitation, or				
reconditioning of				
athletes and others				
involved in physical				
activity.				
Accepts the moral and				
ethical obligation to				
provide rehabilitation				
or reconditioning to				
athletes and others				
involved in physical				
activity to the fullest				
extent possible.				
Respects the proper				
role of attending				
physicians and other				
medical and				
paramedical personnel				
in the treatment and				
rehabilitation or				
reconditioning of				
athletes and others				
involved in physical				
activity.				
Supports the moral				
and ethical behavior of				
athletic trainers in				
issues dealing with				
diseases of athletics				
and physical activity.				
Recognizes the moral				
and ethical				
responsibility of taking				
situational control in				
the containment of				
common contagious				
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viral and infectious			
diseases.			
Accepts the roles of			
medical and allied			
health personnel in the			
referral, management,			
and treatment of			
athletes and others			
involved in physical			
activity suffering from			
general medical			
conditions.			
Appreciates the role			
of proper nutrition in			
the health care of			
athletes and others			
involved in physical			
activity.			
Appreciates the long-			
term effects of			
disordered eating,			
bone density loss, and			
secondary amenorrhea			
on the skeletal health			
of the physically			
active.			
Recognizes the need			
for and implements			
proper referral for			
eating disorders.			
Accepts the			
professional, ethical,			
and legal parameters			
that define the proper			
role of the certified			
athletic trainer in			
providing health care			
information,			
intervention, and			
referral.			
Accepts the			
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responsibility to provide health care			
information,			
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intervention, and			
referral consistent with			
the certified athletic			
trainer's professional			
training.			
Recognizes the			
certified athletic			
trainer's role as a			
liaison between the			
physically active,			
athletic personnel,			
health care			
professionals,			
parents/guardians, and			
the public.			
Appreciates the roles			
and functions of			
various medical and			
paramedical specialties			
as well as their			
respective areas of			
expertise in the acute			
care of injuries and			
illnesses to athletes			
and others involved in			
physical activity.			
Appreciates the			
importance of an			
emergency action plan			
that is tailored for a			
specific venue or			
setting.			
Accepts the			
professional, ethical,			
and legal parameters			
that define the proper			
role of the certified			
athletic trainer in the			
administration and			
implementation of			
health care delivery			
systems.			
Appreciates the need			
for and the process and			

benefits of athletic			
training regulatory acts			
(registration, licensure,			
certification).			
Accepts the			
professional,			
historical, ethical, and			
organizational			
structures that define			
the proper roles and			
responsibilities of the			
certified athletic			
trainer in providing			
health care to athletes			
and others involved in			
physical activity.			
Advocates the NATA			
as an allied health			
professional			
organization dedicated			
to the care of athletes			
and others involved in			
physical activity.			
Defends the			
responsibility to			
interpret and promote			
athletic training as a			
professional discipline			
among allied			
health professional			
groups and the general			
public.			

Demographics (check appropriate answer)

1. How much time did you spend in clinical education and field experience?

75% clinical	50% clinical	25% clinical	100% field
education 25%	education 50%	education 75%	experience
field experience	field experience	field experience	
	education 25%	education 25% education 50% field experience	education 25% education 50% education 75% field experience field experience

2. Considering your complete education program, how would you rate your clinical instructors' supervisory competence?								
Not good	Below average	Average	Above average	Excellent				
	Below average	Average	C	0				
•	3. When did you begin your clinical education/ field experience?(count from when you entered school not the athletic training program)							
First year	Secon	d year Thi	rd year (junior)	Fourth year				
(freshman)	(sopho	omore)		(Senior)				
				0				

Thank you for your time and effort in completing this survey.

References

National Athletic Trainers' Association Education Council Clinical Education
 Definitions.

www.cewl.com. Accessed February 22,2003.

 National Athletic Trainers' Association Education Council. Educational Competencies and Clinical Proficiencies. 2001.

APPENDIX E

RESULTS OF PILOT ONE

Reliability Clinical Education Round 1
***** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

	CE1	CE2	CE3	CE4	CE5
CE1	1.0000				
CE2	.2831	1.0000			
CE3	.5401	.3669	1.0000		
CE4	.3203	.5983	.0000	1.0000	
CE5	.7777	.5284	.6720	.2491	1.0000
CE6	.9102	.6183	.4537	.6054	.7841
CE7	.3536	0400	.7638	2831	.1466
CE8	.4410	.2996	.8165	.0000	.5487
CE9	3611	.1510	.1800	.3203	1901
CE10	.7947	.6974	.4292	.4772	.6181
CE11	.7083	.0849	.2700	.6005	.5962
CE12	.6455	.4385	.8367	.4961	.6426
CE13	.8006	0272	.5189	1923	.7970
CE14	.8807	.4079	.5189	.1923	.9465
CE15	.3536	0400	.7638	2831	.6599
CE16	.6651	.7848	.6806	.3700	.9366
CE17	.4196	0219	.6275	.0620	.6426
CE18	.7100	1316	.4183	0620	.7631
CE19	.8807	1632	.5189	0769	.5978
CE20	0589	.5204	.3819	.5095	1100
CE21	.8006	0272	.5189	1923	.4483
CE22	.7083	.0849	.2700	.6005	.5962
CE23	.7660	.3803	.7638	0849	.9165
CE24	.5477	.1550	.5916	.4824	.6248
CE25	1.0000	.2831	.5401	.3203	.7777
CE26	.6005	.5983	.7783	0769	.7721
CE27	.4167	.8775	.5401	.6005	.4148
CE28	.7660	3203	.3819	.1132	.4033
CE29	.0400	3536		.1923	.0747
CE30	.7100	1316	.4183	0620	.7631
CE31	.9102	.1189	.4537	.3700	.7841

CE32	.5204	.9247	.2594	.6154	.6227
CE33	.8819	.2996	.8165	.0000	.8231
CE34	1667	.4812	5401	.6005	.0518
CE35	.8839	.3203	.3819	.6794	.6233
CE36	.0400	3536	.2594	.1923	.0747
CE37	.6005	.0272	.7783	3462	.7721

	CE6	CE7	CE8	CE9	CE10
CE6	1.0000)			
CE7	.1485	1.000	00		
CE8	.3705	.623		00	
CE9	2334				00
CE10	.9181	.281	0 .35	04287	70 1.0000
CE11	.6651	058	.22	.02	78 .3311
CE12	.6508		7 .68		
CE13	.5718	.283	.42	37507	71 .4136
CE14	.8408	.113	.42	37427	70 .6999
CE15	.1485	.416	.62	36 .078	0468
CE16	.7941	.148	.55	57070	00 .7233
CE17	.2712	.228	.68	31 .344	0256
CE18	.4881	.091	3 .34	16344	.2052
CE19	.6054	.509	5 .42	37427	70 .4772
CE20	.1485	.416	.31	18 .628	.2810
CE21	.5718	.679	4 .42	37507	.6363
CE22	.6651	058	.22	.02	78 .3311
CE23	.6683	.416	.62	36333	.6088
CE24	.4985	.193	.48	30 .334	.1814
CE25	.9102	.353	6 .44	10361	.7947
CE26	.6054	.509	5 .63	55240	.6999
CE27	.6651	.353	6 .44	10 .222	.7947
CE28	.4951	.416	.31	18196	.2810
CE29	1009	.113	.21	18 .507	714136
CE30	.4881	.091	3 .34	16344	.2052
CE31	.7941	.148	.37	05233	.5286
CE32	.8072	2113	.21	1813	.8590
CE33	.7410	.623	.66	67294	.7009
CE34	.1750	883	3944	.02′	78 .0993
CE35	.8911	.166	.31	18078	36 .7024
CE36	1009	.113	.21	18 .507	714136
CE37	.3700	.509	.63	55240	.2545

	CE11	CE12	CE13	CE14	CE15
CE11	1.0000	l			
CE12	.6455	1.0000			
CE13	.5204	.3721	1.0000		
CE14	.6005	.4961	.8846	1.0000	
CE15	.3536	.5477	.6794	.5095	1.0000
CE16	.4201	.6508	.5718	.8408	.4951
CE17	.6455	.6500	.5892	.4961	.8672
CE18	.7100	.4000	.9303	.8062	.7303
CE19	.6005	.4961	.8846	.7308	.5095
CE20	0589	.5477	5095	2831	1667
CE21	.2402	.3721	.7308	.6154	.2831
CE22	1.0000	.6455	.5204	.6005	.3536
CE23	.3536	.5477	.8775	.9058	.7083
CE24	.8672	.8485	.4385	.4824	.6455
CE25	.7083	.6455	.8006	.8807	.3536
CE26	.0400	.4961	.6154	.7308	.5095
CE27	.1250	.6455	0400	.3203	0589
CE28	.7660	.5477	.6794	.5095	.4167
CE29	.6005	.4961	.0769	0769	.5095
CE30	.7100	.4000	.9303	.8062	.7303
CE31	.9102	.6508	.8072	.8408	.4951
CE32	.2402	.3721	.1923	.6154	1132
CE33	.4410	.6831	.8473	.8473	.6236
CE34	.1250	2582	3203	.0400	4714
CE35	.8839	.7303	.5095	.6794	.1667
CE36	.6005	.4961	.0769	0769	.5095
CE37	.3203	.4961	.8846	.7308	.9058
	Correla	tion Matrix	X		

	CE16	CE17	CE18	CE19	CE20
CE16 CE17	1.0000 .4610	1.0000			
CE18	.4881	.7500	1.0000	1 0000	
CE19 CE20	.3700 .1485	.4961 0913	.8062 5477	1.0000 2831	1.0000
CE21 CE22	.3363 .4201	.1550 .6455	.4961 .7100	.8846 .6005	1132 0589
CE23	.8416	.5477	.7303	.7077	1667

CE24	.4985	.8485	.6364	.4824	.1936
CE25	.6651	.4196	.7100	.8807	0589
CE26	.8408	.2791	.3721	.4615	.1132
CE27	.6651	0323	1936	.0400	.7660
CE28	.1485	.5477	.7303	.9058	1667
CE29	1009	.7132	.3721	.1923	.1132
CE30	.4881	.7500	1.0000	.8062	5477
CE31	.5882	.6508	.8677	.8408	1980
CE32	.8072	0620	.0620	.0769	.2831
CE33	.7410	.5123	.6831	.8473	.0000
CE34	.1750	2582	1936	5204	0589
CE35	.5446	.4108	.5477	.6794	.1667
CE36	1009	.7132	.3721	.1923	.1132
CE37	.6054	.7132	.8062	.7308	2831
	CE21	CE22	CE23	CE24	CE25
CE21	1.0000				
CE22	.2402	1.0000			
CE23	.6794	.3536	1.0000		
CE24	.1316	.8672	.4196	1.0000	
CE25	.8006	.7083	.7660	.5477	1.0000
CE26	.6154	.0400	.9058	.1754	.6005
CE27	.2402	.1250	.3536	.2282	.4167
CE28	.6794	.7660	.4167	.6455	.7660
CE29	1923	.6005	0849	.7894	.0400
CE30	.4961	.7100	.7303	.6364	.7100
CE31	.5718	.9102	.6683	.7670	.9102
CE32	.1923	.2402	.4812	.1316	.5204
CE33	.8473	.4410	.9354	.4830	.8819
CE34	6005	.1250	2652	0913	1667
CE35	.5095	.8839	.4583	.7100	.8839
CE36	1923		0849	.7894	.0400
CE37	.6154	.3203	.9058	.4824	.6005
	Correla	tion Matrix	X		
	CE26	CE27	CE28	CE29	CE30
CE26	1.0000				
CE27	.6005				
CE28	.1132		1.0000		
CE29	3462	2402	.5095	1.0000	

CE30	.3721	1936	.7303	.3721	1.0000
CE31	.3700	.1750	.8416	.3700	.8677
CE32	.6154	.8006	1132	4615	.0620
CE33	.8473	.4410	.6236	.0000	.6831
CE34	2402	.1250	4714	2402	1936
CE35	.2831	.4714	.7500	.2831	.5477
CE36	3462	2402	.5095	1.0000	.3721
CE37	.7308	.0400	.5095	.1923	.8062
	CE31	CE32	CE33	CE34	CE35
	CESI	CE32	CESS	CE34	CESS
CE31	1.0000				
CE32	.3363	1.0000			
CE33	.7410	.4237	1.0000		
CE34	0700	.5204	4410	1.0000	
CE35	.8911	.5095	.6236	.0589	1.0000
CE36	.3700	4615	.0000	2402	.2831
CE37	.6054	.0769	.8473	5204	.2831
	CT2 (~~~			
	CE36	CE37			
CE36	1.0000				
CE37	.1923	1.0000			
CLST	.1743	1.0000			

N of Cases = 7.0

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .3896 -.8839 1.0000 1.8839 -1.1314 .1339

Reliability Coefficients 37 items

Alpha = .9559 Standardized item alpha = .9594

Reliability Field Experience Round one

***** Method 2 (covariance matrix) will be used for this analysis

RELIABILITY ANALYSIS - SCALE (ALPHA)

	FE2	FE3	FE4	FE5	FE6
FE2	1.0000				
FE3	.7660	1.0000)		
FE4	.4714	.1667	1.0000)	
FE5	.5962	.1466	.8799	1.0000)
FE6	.1750	1980	.8911	.7841	1.0000
FE7	.0000	.0000	.6236	.5487	.7410
FE8	.8278	.7024	.6088	.6799	.4451
FE9	.8052	.8911	.4951	.4356	.2353
FE10	.6005	.1132	.6794	.9465	.6054
FE11	.2402	1132	.5095	.7970	.5718
FE12	.6651	.4951	.8911	.7841	.5882
FE13	0400	5095	5 .5095	5 .622	7 .8072
FE14	.0400	2831	.2831	.4234	4 .6054
FE15	.2582	.0913	0913	.2008	3 .1085
FE16	.7947	.2810	.3746	.6181	.3338
FE17	.5477	.6455	.2582	.2272	.2301
FE18	.2582	.0913	.5477	.2008	.4881
FE19	.7660	.4167	.7500	.9165	.4951
FE20	.7660	1.0000	0 .166	7 .146	61980
FE21	.3203	.1132	.2831	.5978	3 .3700
FE22	.3114	.3203	.2402	.2113	.3805
FE23	.1909	.0000	.2700	.4752	.4813
FE24	1667	0589	.4714	4 .2333	3 .6651
FE25	.7083	.3536	.4714	.7777	.4201
FE26	.6651	.4951	.1980	.4792	.1765
FE27	.9102	.8416	.1980	.3267	0294
FE28	4167	3536	3536	5051	8 .5601
FE29	2764	533(.5330	.3590	6 .8444
FE30	.7660	.4167	.1667	.4033	.1485
FE31	.1250	0589	.4714	.5962	2 .6651
FE32	.8807	.5095	.2831	.4234	.1345
FE33	.3151	.1980	.4951	.4356	.6471
FE34	.0700	.1980	.1485	1742	2 .0294
FE35	.0913	1936	.1936	.3692	.3068
FE36	6455	5477	70913	3361	4 .1085
FE37	5204	6794	41132	2099	6 .1345

	FE7	FE8	FE9	FE10	FE11
FE7	1.0000				
FE8	.5257	1.000	0		
FE9	.3705	.9181	1.00	000	
FE10	.4237	.636	3 .33	663 1.0	000
FE11	.6355	.477	2 .13	.88	346 1.0000
FE12	.3705	.639	9 .64	.60	.3363
FE13	.6355	.254	510	.6.	154 .7308
FE14	.6355	.413	6 .10	.46	.6154
FE15	.3416	.513	0 .27	12 .37	721 .4961
FE16	.0000	.657	9 .44	51 .69	999 .4136
FE17	.4830	.834	3 .84	37 .17	754 .1316
FE18	.0000	.153	9 .27	1200	6203721
FE19	.3118	.702	4 .54	46 .90	.6794
FE20	.0000	.702	4 .89	.11	1132
FE21	.6355	.636	3 .33	663 .73	.8846
FE22	.5991	.697	4 .61	.16	.2176
FE23	.7217	.607	0 .32	.55	503 .7338
FE24	.8819	.364	2 .31	51 .04	.2402
FE25	.4410	.827	8 .56	.88	.8006
FE26	.3705	.834	6 .64	.60	.5718
FE27	.0000	.834	6 .85	329 .37	.1009
FE28	.4410	132	507	7003	2032402
FE29	.6648	.079	910)56 .19	931 .3138
FE30	.0000	.702	4 .54	46 .50	095 .2831
FE31	.8819	.596	0 .31	.60	.8006
FE32	2118	.636	3 .57	718 .40	.0769
FE33	.7410	.723	3 .58	.33	363 .3700
FE34	1852	055	.17	7653	7005718
FE35	.2415	.181	403	.43	385 .4824
FE36	.0000	564	348	3814	9613721
FE37	.0000	477	260)540	769 .0769

	FE12	FE13	FE14	FE15	FE16
FE12	1.000	00			
FE13	.100	9 1.000	00		
FE14	100	9 .884	6 1.000	0	
FE15	271	2 .496	1 .8062	2 1.000	0

FE16	.3338	.4136	.4772	.5643	1.0000
FE17	.2301	.1316	.4824	.6364	.4353
FE18	.4881	.0620	0620	4000	.2052
FE19	.8416	.2831	.1132	.0913	.6088
FE20	.4951	5095	2831	.0913	.2810
FE21	.1345	.6154	.7308	.8062	.4772
FE22	.0476	.4079	.7343	.7455	.4049
FE23	.0000	.7338	.9172	.8874	.4552
FE24	.1750	.5204	.6005	.2582	1325
FE25	.4201	.5204	.6005	.7100	.7947
FE26	.1765	.3363	.6054	.8677	.7233
FE27	.3824	1345	.1345	.4881	.7233
FE28	.0700	.3203	.2402	2582	3311
FE29	.1056	.8208	.7001	.1557	.0599
FE30	.1485	.2831	.5095	.7303	.9366
FE31	.1750	.8006	.8807	.7100	.3311
FE32	.3700	.0769	.1923	.3721	.9226
FE33	.2353	.6054	.8072	.6508	.4451
FE34	.2353	3363	3700	4881	1391
FE35	.0383	.4824	.4385	.3536	.3265
FE36	2712	.0620	0620	4000	5130
FE37	3363	.3462	.1923	0620	1909

	FE17	FE18	FE19	FE20	FE21
FE17	1.0000				
FE18	.1414	1.0000			
FE19	.1936	.0913	1.0000		
FE20	.6455	.0913	.4167	1.0000	
FE21	.4824	4961	.5095	.1132	1.0000
FE22	.9303	.1316	.0400	.3203	.5439
FE23	.6275	2958	.2700	.0000	.9172
FE24	.5477	.2582	0589	0589	.3203
FE25	.5477	1936	.7660	.3536	.8807
FE26	.7670	2712	.4951	.4951	.8408
FE27	.7670	.1085	.4951	.8416	.3700
FE28	.0913	.6455	3536	3536	3203
FE29	.1376	.4282	0355	5330	.1931
FE30	.6455	.0913	.4167	.4167	.5095
FE31	.5477	1936	.3536	0589	.8807
FE32	.4824	.3721	.5095	.5095	.1923
FE33	.8437	.2712	.1980	.1980	.5718

FE34 FE35 FE36 FE37	.0383 .0500 3536 4385		1485 .2582 5477 2831	.1980 1936 5477 6794	6054 .4385 4961 0769
	FE22	FE23	FE24	FE25	FE26
FE22 FE23	1.0000 .7783	1.0000			
FE24	.7077	.5728	1.0000		
FE25	.5095	.7638	.1250	1.0000	
FE26	.7135	.8021	.1750	.9102	1.0000
FE27	.5470	.3208	0700	.6651	.7941
FE28	.2831	.0000	.7500	4167	4201
FE29	.4267	.4606	.7789	.0754	0422
FE30	.6005	.5401	0589	.7660	.8416
FE31	.7077	.9547	.7083	.7083	.6651
FE32	.3536	.1834	2402	.6005	.6054
FE33	.9513	.8021	.8052	.5601	.6471
FE34	0476		.0700	4201	3824
FE35	.1550		.0913	.4108	.3068
FE36	1754		.2582	6455	6508
FE37	2176	.0000	.0400	2402	3363
_	Correla	ation Matri	X		
	FE27	FE28	FE29	FE30	FE31
FE27	1.0000)			
FE28	4201	1.0000)		
FE29	3378	.8040	1.0000		
FE30	.8416	3536	0355	1.0000	
FE31	.1750	.1667	.6030	.3536	1.0000
FE32	.8408	3203	1448	.9058	.0400
FE33	.4412	.4201	.6333	.5446	.8052
FE34	.0294	.4201	.0422	1485	4201
FE35	.0383	0913	.2477	.2582	.4108
FE36	6508	.6455	.4282	5477	1936
FE37	5718	.2402	.3621	2831	.0400
	FE32	FE33	FE34	FE35	FE36
FE32 FE33	1.0000 .3363	1.0000			
11233	.5505	1.0000			

FE34	.1009	0294	1.0000		
FE35	.1316	.2301	.2301	1.0000	
FE36	4961	1085	.6508	.3536	1.0000
FE37	3462	1345	.3363	.7455	.8062

FE37

FE37 1.0000

N of Cases = 7.0

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .3008 -.6794 1.0000 1.6794 -1.4720 .1506

Reliability Coefficients 36 items

Alpha = .9384 Standardized item alpha = .9393

Reliability Clinical education Round two

***** Method 2 (covariance matrix) will be used for this analysis

* * * CE7 has zero variance

* * * CE9 has zero variance

	CE_1	CE_2	CE3	CE4	CE5
CE_1	1.0000				
CE_2	.3015	1.0000			
CE3	.5222	.5774	1.0000		
CE4	1741	.5774	3333	1.0000	
CE5	.8704	.5774	.3333	.3333	1.0000
CE6	.8704	.5774	.3333	.3333	1.0000
CE8	1741	.5774	3333	1.0000	.3333
CE10	.3015	1.0000	.5774	.5774	.5774
CE11	.5222	.5774	1.0000	3333	.3333
CE12	.3015	1.0000	.5774	.5774	.5774
CE13	.5222	.5774	1.0000	3333	.3333
CE14	.8528	.7071	.8165	.0000	.8165
CE15	.9045	.0000	.5774	5774	.5774
CE16	.4264	.7071	.0000	.8165	.8165

CE17	.7609	.6882	.9272	1325	.6623
CE18	.3015	1.0000	.5774	.5774	.5774
CE19	.4545	.9045	.8704	.1741	.5222
CE20	.8528	.7071	.8165	.0000	.8165
CE21	.8182	.3015	.8704	5222	.5222
CE22	.8528	.7071	.8165	.0000	.8165
CE23	.8528	.7071	.8165	.0000	.8165
CE24	.8528	.7071	.8165	.0000	.8165
CE25	.6742	.8944	.7746	.2582	.7746
CE26	.6742	.8944	.7746	.2582	.7746
CE27	.4924	.8165	.9428	.0000	.4714
CE28	.4545	.9045	.8704	.1741	.5222
CE29	.4545	.9045	.8704	.1741	.5222
CE30	.8528	.7071	.8165	.0000	.8165
CE31	.8528	.7071	.8165	.0000	.8165
CE32	.4062	.9623	.7778	.3333	.5556
CE33	.4545	.9045	.8704	.1741	.5222
CE34	.8528	.0000	.0000	.0000	.8165
CE35	1.0000	.3015	.5222	1741	.8704
CE36	.9045	.0000	.5774	5774	.5774
CE37	.9045	.0000	.5774	5774	.5774

	CE6	CE8	CE10	CE11	CE12
CE6	1.0000	l			
CE8	.3333	1.0000			
CE10	.5774	.5774	1.0000		
CE11	.3333	3333	.5774	1.0000	
CE12	.5774	.5774	1.0000	.5774	1.0000
CE13	.3333	3333	.5774	1.0000	.5774
CE14	.8165	.0000	.7071	.8165	.7071
CE15	.5774	5774	.0000	.5774	.0000
CE16	.8165	.8165	.7071	.0000	.7071
CE17	.6623	1325	.6882	.9272	.6882
CE18	.5774	.5774	1.0000	.5774	1.0000
CE19	.5222	.1741	.9045	.8704	.9045
CE20	.8165	.0000	.7071	.8165	.7071
CE21	.5222	5222	.3015	.8704	.3015
CE22	.8165	.0000	.7071	.8165	.7071
CE23	.8165	.0000	.7071	.8165	.7071
CE24	.8165	.0000	.7071	.8165	.7071
CE25	.7746	.2582	.8944	.7746	.8944

CE26	.7746	.2582	.8944	.7746	.8944
CE27	.4714	.0000	.8165	.9428	.8165
CE28	.5222	.1741	.9045	.8704	.9045
CE29	.5222	.1741	.9045	.8704	.9045
CE30	.8165	.0000	.7071	.8165	.7071
CE31	.8165	.0000	.7071	.8165	.7071
CE32	.5556	.3333	.9623	.7778	.9623
CE33	.5222	.1741	.9045	.8704	.9045
CE34	.8165	.0000	.0000	.0000	.0000
CE35	.8704	1741	.3015	.5222	.3015
CE36	.5774	5774	.0000	.5774	.0000
CE37	.5774	5774	.0000	.5774	.0000

CE18 .5774 .7071 .0000 .7071 .6 CE19 .8704 .8528 .3015 .4264 .8 CE20 .8165 1.0000 .7071 .5000 .9	17
CE14 .8165 1.0000 CE15 .5774 .7071 1.0000 CE16 .0000 .5000 .0000 1.0000 CE17 .9272 .9733 .6882 .3244 1.0 CE18 .5774 .7071 .0000 .7071 .6 CE19 .8704 .8528 .3015 .4264 .8 CE20 .8165 1.0000 .7071 .5000 .9	
CE15 .5774 .7071 1.0000 CE16 .0000 .5000 .0000 1.0000 CE17 .9272 .9733 .6882 .3244 1.0 CE18 .5774 .7071 .0000 .7071 .6 CE19 .8704 .8528 .3015 .4264 .8 CE20 .8165 1.0000 .7071 .5000 .9	
CE16 .0000 .5000 .0000 1.0000 CE17 .9272 .9733 .6882 .3244 1.0 CE18 .5774 .7071 .0000 .7071 .6 CE19 .8704 .8528 .3015 .4264 .8 CE20 .8165 1.0000 .7071 .5000 .9	
CE17 .9272 .9733 .6882 .3244 1.0 CE18 .5774 .7071 .0000 .7071 .6 CE19 .8704 .8528 .3015 .4264 .8 CE20 .8165 1.0000 .7071 .5000 .9	
CE18 .5774 .7071 .0000 .7071 .6 CE19 .8704 .8528 .3015 .4264 .8 CE20 .8165 1.0000 .7071 .5000 .9	0000
CE19 .8704 .8528 .3015 .4264 .8 CE20 .8165 1.0000 .7071 .5000 .9	882
CE20 .8165 1.0000 .7071 .5000 .9	992
	9733
CE21 .8704 .8528 .9045 .0000 .8	992
	9733
	9733
	9733
	234
CE26 .7746 .9487 .4472 .6325 .9	234
	366
CE28 .8704 .8528 .3015 .4264 .8	992
	992
CE30 .8165 1.0000 .7071 .5000 .9	9733
CE31 .8165 1.0000 .7071 .5000 .9	9733
CE32 .7778 .8165 .1925 .5443 .8	389
CE33 .8704 .8528 .3015 .4264 .8	992
CE34 .0000 .5000 .7071 .5000 .3	244
CE35 .5222 .8528 .9045 .4264 .7	609
CE36 .5774 .7071 1.0000 .0000 .6	5882
CE37 .5774 .7071 1.0000 .0000 .6	5882

	CE18	CE19	CE20	CE21	CE22
CE18	1.0000				
CE19	.9045	1.0000			
CE20	.7071	.8528	1.0000		
CE21	.3015	.6364	.8528	1.0000	
CE22	.7071	.8528	1.0000	.8528	1.0000
CE23	.7071	.8528	1.0000	.8528	1.0000
CE24	.7071	.8528	1.0000	.8528	1.0000
CE25	.8944	.9439	.9487	.6742	.9487
CE26	.8944	.9439	.9487	.6742	.9487
CE27	.8165	.9847	.8660	.7385	.8660
CE28	.9045	1.0000	.8528	.6364	.8528
CE29	.9045	1.0000	.8528	.6364	.8528
CE30	.7071	.8528	1.0000	.8528	1.0000
CE31	.7071	.8528	1.0000	.8528	1.0000
CE32	.9623	.9864	.8165	.5222	.8165
CE33	.9045	1.0000	.8528	.6364	.8528
CE34	.0000	.0000	.5000	.4264	.5000
CE35	.3015	.4545	.8528	.8182	.8528
CE36	.0000	.3015	.7071	.9045	.7071
CE37	.0000	.3015	.7071	.9045	.7071
	CE23	CE24	CE25	CE26	CE27
CE23	1.0000				
CE24	1.0000				
CE25	.9487	.9487	1.0000		
CE26	.9487	.9487	1.0000	1.0000	
CE27	.8660	.8660	.9129	.9129	1.0000
CE28	.8528	.8528	.9439	.9439	.9847
CE29	.8528	.8528	.9439	.9439	.9847
CE30	1.0000	1.0000	.9487	.9487	.8660
CE31	1.0000	1.0000	.9487	.9487	.8660
CE32	.8165	.8165	.9467	.9467	.9428
CE33	.8528	.8528	.9439	.9439	.9847
CE34	.5000	.5000	.3162	.3162	.0000
CE35	.8528	.8528	.6742	.6742	.4924
CE36	.7071	.7071	.4472	.4472	.4082
CE37	.7071	.7071	.4472	.4472	.4082
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	CE28	CE29	CE30	CE31	CE32
CE28	1.0000				
CE29	1.0000				
CE30	.8528	.8528	1.0000		
CE31	.8528	.8528	1.0000	1.0000	
CE32	.9864	.9864	.8165	.8165	1.0000
CE33	1.0000			.8528	.9864
CE34	.0000	.0000	.5000	.5000	.0000
CE35	.4545	.4545	.8528	.8528	.4062
CE36	.3015	.3015	.7071	.7071	.1925
CE37	.3015	.3015	.7071	.7071	.1925
	CE33	CE34	CE35	CE36	CE37
CE33	1.0000				
CE34	.0000	1.0000			
CE35	.4545	.8528	1.0000		
CE36	.3015	.7071	.9045	1.0000	
CE37	.3015	.7071	.9045	1.0000	1.0000

N of Cases = 4.0

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .6237 -.5774 1.0000 1.5774 -1.7321 .1181

Reliability Coefficients 35 items

Alpha = .9810 Standardized item alpha = .9831

Reliability Field experience Round two

***** Method 2 (covariance matrix) will be used for this analysis

* * * FE2 has zero variance * * * FE3 has zero variance * * * FE5 has zero variance * * * FE11 has zero variance

	FE1	FE4	FE6	FE7	FE	28
FE1	1.0000)				
FE4	1.0000	1.00	000			
FE6	1.0000	1.00	000 1.0	0000		
FE7	.3333	.333	3 .33	33 1	.0000	
FE8	.8165	.816	.81	65 .	8165	1.0000
FE9	.3333	.333	.33	33 1	.0000	.8165
FE10	.5774	.57	74 .5	774	.5774	.7071
FE12	.5774	.57	74 .57	774	.5774	.7071
FE13	3333	33	333	333	.3333	.0000
FE14	.5774	.57	74 .5	774	.5774	.7071
FE15	3333	33	333	333	.3333	.0000
FE16	1.000	0 1.00	000 1.	.0000	.3333	.8165
FE17	1.000	0 1.00	000 1.	.0000	.3333	.8165
FE18	1.000	0 1.00	000 1.	.0000	.3333	.8165
FE19	1.000	0 1.00	000 1.	.0000	.3333	.8165
FE20	.5774	.57	74 .57	774	.5774	.7071
FE21	3333	33	333	333	.3333	.0000
FE22	.5774	.57	74 .57	774	.5774	.7071
FE23	1.000	0 1.00	000 1.	.0000	.3333	.8165
FE24	1.000	0 1.00	000 1.	.0000	.3333	.8165
FE25	1.0000	0 1.00	000 1.	.0000	.3333	.8165
FE26	.8704	.870	04 .87	704	.5222	.8528
FE27	1.000	0 1.00	000 1.	.0000	.3333	.8165
FE28	3333	33	333	333	.3333	.0000
FE29	.5774	.57	74 .57	774	.5774	.7071
FE30	3333	33	333	333	.3333	.0000
FE31	.5774	.57	74 .57	774	.5774	.7071
FE32	1.0000	0 1.00	000 1.	.0000	.3333	.8165
FE33	.5774	.57	74 .57	774	.5774	.7071
FE34	1741	17	411	741	.8704	.4264
FE35	.0000	.000	00.	000	.8165	.5000
FE36	5222	52	225	5222	.5222	.0000
FE37	3333	33	333	333	.3333	.0000

	FE9	FE1	0 F	FE12	FE13	FE14
FE9	1.00	00				
FE10	.57	74 1	.0000			
FE12	.57	74 .	0000	1.0000		
FE13	.33	33	.5774	.5774	1.0000	

FE14	.5774	1.0000	.0000	5774	1.0000
FE15	.3333	.5774	5774	3333	.5774
FE16	.3333	.5774	.5774	3333	.5774
FE17	.3333	.5774	.5774	3333	.5774
FE18	.3333	.5774	.5774	3333	.5774
FE19	.3333	.5774	.5774	3333	.5774
FE20	.5774	1.0000	.0000	5774	1.0000
FE21	.3333	5774	.5774	1.0000	5774
FE22	.5774	.0000	1.0000	.5774	.0000
FE23	.3333	.5774	.5774	3333	.5774
FE24	.3333	.5774	.5774	3333	.5774
FE25	.3333	.5774	.5774	3333	.5774
FE26	.5222	.9045	.3015	5222	.9045
FE27	.3333	.5774	.5774	3333	.5774
FE28	.3333	.5774	5774	3333	.5774
FE29	.5774	1.0000	.0000	5774	1.0000
FE30	.3333	.5774	5774	3333	.5774
FE31	.5774	1.0000	.0000	5774	1.0000
FE32	.3333	.5774	.5774	3333	.5774
FE33	.5774	.0000	1.0000	.5774	.0000
FE34	.8704	.3015	.3015	.5222	.3015
FE35	.8165	.7071	.0000	.0000	.7071
FE36	.5222	3015	.3015	.8704	3015
FE37	.3333	5774	.5774	1.0000	5774

	FE15	FE16	FE17	FE18	FE19
FE15	1.0000				
FE16	3333	1.0000			
FE17	3333	1.0000	1.0000		
FE18	3333	1.0000	1.0000	1.0000	
FE19	3333	1.0000	1.0000	1.0000	1.0000
FE20	.5774	.5774	.5774	.5774	.5774
FE21	3333	3333	3333	3333	3333
FE22	5774	.5774	.5774	.5774	.5774
FE23	3333	1.0000	1.0000	1.0000	1.0000
FE24	3333	1.0000	1.0000	1.0000	1.0000
FE25	3333	1.0000	1.0000	1.0000	1.0000
FE26	.1741	.8704	.8704	.8704	.8704
FE27	3333	1.0000	1.0000	1.0000	1.0000
FE28	1.0000	3333	3333	3333	3333
FE29	.5774	.5774	.5774	.5774	.5774

FE30 FE31 FE32 FE33 FE34 FE35 FE36 FE37	1.0000 .5774 3333 5774 .5222 .8165 .1741 3333	3333 .5774 1.0000 .5774 1741 .0000 5222 3333	3333 .5774 1.0000 .5774 1741 .0000 5222 3333	3333 .5774 1.0000 .5774 1741 .0000 5222 3333	3333 .5774 1.0000 .5774 1741 .0000 5222 3333
	FE20	FE21	FE22	FE23	FE24
FE20 FE21 FE22 FE23 FE24 FE25 FE26 FE27 FE28 FE29 FE30 FE31 FE32 FE33 FE34 FE35 FE36 FE37	1.00005774 .0000 .5774 .5774 .5774 .5774 .5774 1.0000 .5774 1.0000 .5774 1.0000 .577430155774	1.0000 .5774 3333 3333 5222 3333 5774 3333 .5774 3333 .5774 .5222 .0000 .8704 1.0000	1.0000 .5774 .5774 .5774 .3015 .5774 5774 .0000 .5774 1.0000 .3015 .0000 .3015	1.0000 1.0000 1.0000 .8704 1.0000 3333 .5774 3333 .5774 1.0000 .5774 1741 .0000 5222 3333	1.0000 1.0000 .8704 1.0000 3333 .5774 3333 .5774 1.0000 .5774 1741 .0000 5222 3333
	Correlat	ion Matri	X		
	FE25	FE26	FE27	FE28	FE29
FE25 FE26 FE27 FE28 FE29 FE30 FE31 FE32 FE33 FE34	1.0000 .8704 1.0000 3333 .5774 3333 .5774 1.0000 .5774 1741	1.0000 .8704 .1741 .9045 .1741 .9045 .8704 .3015 .0909	1.0000 3333 .5774 3333 .5774 1.0000 .5774 1741	1.0000 .5774 1.0000 .5774	1.0000 .5774 1.0000 .5774 .0000 .3015

FE35	.0000	.4264	.0000	.8165	.7071
FE36	5222	4545	5222	.1741	3015
FE37	3333	5222	3333	3333	5774
	FE30	FE31	FE32	FE33	FE34
EE20	1 0000				
FE30	1.0000				
FE31	.5774				
FE32	3333	.5774	1.0000		
FE33	5774	.0000	.5774	1.0000	
FE34	.5222	.3015	1741	.3015	1.0000
FE35	.8165	.7071	.0000	.0000	.8528
FE36	.1741	3015	5222	.3015	.8182
FE37	3333	5774	3333	.5774	.5222
	FE35	FE36	FE37		
	1 200	1200	1207		
FE35	1.0000				
FE36	.4264	1.0000			
FE37	.0000	.8704	1.0000		
N.T.		4.0			
N o	of Cases =	4.0			

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .3460 -.5774 1.0000 1.5774 -1.7321 .2606

Reliability Coefficients 33 items

Alpha = .9411Standardized item alpha = .9458

APPENDIX F

COVER LETTER FOR PILOT TWO

Dear Athletic Training Student,

You are being invited to participate in a web based survey entitled Entry-level athletic trainers' perceptions on the role of clinical experience in the development of the affective domain. This survey is a pilot study which will be considered as part of my doctoral dissertation. The purpose of the study is to measure the reliability of my proposed instrument using a test-retest method. You will be asked to complete the web based survey now by following the enclosed URL. If you choose to complete this survey you will receive another email in approximately one week inviting you to complete the survey again

You must be a current student in a CAAHEP accredited entry-level athletic training education program to participate in this study.

The survey consists of demographic questions and others relating to the importance of structured clinical education and unstructured field experience on the development of selected affective domain competencies. The survey should take you no longer than approximately 25 minutes to complete.

To participate you need access to the internet. You will access the link provided below, answer all questions honestly and submit your responses. All of your responses will be confidential. Filling out the survey and submitting your responses serves as your informed consent for participation. Your participation is entirely voluntary and you may withdraw at any time by discontinuing the survey without submitting the data. This survey and consent letter have been approved by the University of North Carolina at Greensboro Institutional Review Board, which insures that research involving human subjects follows federal regulations. If you have any questions about your rights as a participant in this project please call Dr. Beverly Maddox-Britt at 336-334-5878.

I intend to submit the results of this study for publication in an aggregate form only. If you would like a copy of the project results please email me with your request for information. Also if you have any questions regarding this project feel free to contact me either by email or at 336-278-5883. If you have any questions about your rights as a participant in this project please call Dr. Beverly Maddox-Britt at 336-334-5878.

Thank you for your time and consideration, Sue Stevens
Stevens2@elon.edu
336-278-5883

Click this link to be taken to the survey

http://www.elon.edu/irweb/Athletics/athletics ss.html

APPENDIX G

RESULTS OF PILOT TWO

Round One Reliability Analysis of Rated Data by Activity

***** Method 2 (covariance matrix) will be used for this analysis ******

Correlation Matrix

	PEER_1	PEER_2	PEER3	PEER_	_31 P	EER_30
PEER 1	1.0000)				
PEER 2						
PEER3	.9401	.9683	1.0000			
PEER 3			.7464	1.0000		
PEER 30			.5154	.8833	1.000	0
PEER 2			.6920	.4947		
PEER 28			.2890	.7591		
PEER 29			.8561			
PEER_4			.8315	.6651	.3642	
PEER_5		.6705	.7681	.7231	.6363	
PEER_6		.4566	.6190	.8459	.7443	
PEER_7	.5557	.7264	.7464	.4338	.3478	
PEER_8	.1956	.5267	.4807	.0854	.0955	
PEER_9	.9912	.8546	.9185	.8754	.6885	
PEER_10	.6831	.8795	.8601	.3932	.1988	3
PEER_1	.7009	.8278	.8119	.4938	.4474	1
PEER_12	2 .1372	.0389	.0884	.5118	.7623	3
PEER_13	.6483	.7264	.7464	.6397	.6886	5
PEER_14	4 .9700	.7516	.8520	.8548	.6264	1
PEER_1	.6133	.7368	.7201	.4799	.5197	7
PEER_10	5 .5868	.7922	.7296	.4725	.5603	3
PEER_17	7 .5964	.4508	.5094	.7860	.9584	1
PEER_18	3 .7144	.6076	.6333	.7373	.8584	1
PEER_19	.4237	.2502	.3499	.7231	.9147	7
PEER_20	.7600	.8761	.8206	.3680	.2226	5
PEER_2			.7201	.4799		
PEER_22			.6419	.3824	.4451	
PEER_23			.9139	.5145	.3244	
PEER_24			.3989	.6549	.7434	
PEER_25			.6650	.7894		
PEER_20	3576	.7349	.6123	.0355	020	1

PEER_27 PEER_28 PEER_29 PEER_4 PEER_5

_	1.0000					
PEER_28		1.0000				
PEER_29			1.0000			
PEER_4		.2989	.5117	1.0000		
PEER_5	.8279	.6177	.5462	.8807	1.0000	
PEER_6	.4035	.7226	.6390	.6369	.6974	
_	.8748	.2993	.4553	.8122	.8997	
PEER_8	.8154	.1156	.1261	.5914	.7280	
PEER_9	.5569	.4394	.9685	.6743	.6411	
PEER_10	.7843	.0269	.5849	.8004	.7520	
PEER_11	.9017	.3038	.6707	.6888	.8033	
PEER_12	.3038	.8649	.2211	.0207	.3611	
PEER_13	.9593	.6059	.6643	.6651	.8997	
PEER_14	.4170	.4128	.8989	.6746	.5900	
PEER_15	.9359	.4212	.6142	.6093	.8113	
PEER_16	.9775	.4295	.6418	.5260	.7687	
PEER_17	.6760	.9025	.7017	.3246	.6497	
PEER_18	.7446	.7320	.8060	.3780	.6486	
PEER_19	.5864	.9683	.4865	.3203	.6635	
PEER_20	.6881	0240	.7226	.5745	.5381	
PEER_21	.9359	.4212	.6142	.6093	.8113	
PEER_22	.9593	.4015	.4553	.6161	.8408	
PEER_23	.8091	.1277	.6963	.8165	.7845	
PEER_24	.3762	.7152	.5983	.2494	.4494	
PEER_25	.8226	.7993	.7932	.4585	.7492	
PEER_26			.3458	.4865	.5194	
_						
	PEER_6 P	EER_7	PEER_8	PEER	_9 PEER_	_10
PEER_6	1.0000					
PEER_7	.5016	1.0000				
PEER_8	.1246	.9006	1.0000			
PEER_9	.7500	.5312	.1662	1.0000		
PEER_10	.3718	.9152	.7873	.6439	1.0000	
PEER_11	.5489	.9320	.7637	.6885	.9170	
PEER_12	.4225	.0545	.0230	.1894	2008	
PEER_13	.6393	.8971	.7375	.6689	.7728	
PEER_14	.8344	.4774	.0650	.9683	.5751	
PEER_15	.5582	.9181	.7784	.6141	.8336	
PEER_16	.4006	.8452	.7800	.5965	.7915	
PEER_17		.4545	.2200	.6587	.2794	
PEER_18	.7587	.5672	.2994	.7587	.4706	
PEER_19	.7761	.4288	.2308	.4837	.1550	

PEER 2	0 .4035	.7481	.5478	.7264	.9011		
PEER 2					.8336		
PEER 2	2 .4328						
_	3 .4588						
	4 .8761						
_	5 .7286						
_	60570						
<u>-</u>		.,			.0.0.		
	PEER_11	PEER_12	PEER_	13 PEEF	R_14	PEER_	15
PEER_1							
	2 .0412						
	3 .9320						
	4 .6264						
	5 .9803			.5463	1.0000)	
PEER_1	6 .9128	.3154	.9384	.4531	.9380)	
PEER_1	7 .5822	.7293	.7860	.6049	.6718		
	8 .7511			.7128	.8047		
PEER_1	9 .4693	.7970	.7231	.4667	.5886		
	0 .9017			.6824	.8161		
PEER_2	1 .9803	.1751	.9668	.5463	1.0000)	
PEER_2	2 .9320	.2069	.9485	.3696	.9668		
	3 .9328			.6735	.8517	•	
PEER_2	4 .4956	.4850	.5894	.6859	.5575		
PEER_2	5 .7542	.5846	.8999	.6696	.8139		
PEER_2	6 .7787	2312	.6316	.1784	.7250)	
	PEER_16	PEER_17	PEER_	_18 PEE	R_19	PEER.	_20
DEED 1	1 0000						
_	6 1.0000						
_	7 .6771		1 0000				
	8 .7701			1 0000			
PEER_1			.8432	1.0000	1 000	2	
PEER_2			.6050	.1518	1.0000		
PEER_2			.8047	.5886	.8161		
PEER_2			.6806	.5465	.7059		
PEER_2			.5669	.2451			
PEER_2			.8660	.8238			
PEER_2			.9742		.5506		
PEER_2	6 .7901	.0914	.2737	0487	.7686)	
	PEER_21	PEER_22	PEER_	_23 PEE	R_24	PEER _.	_25

PEER_21 1.0000

PEER_22	.9668	1.0000			
PEER_23	.8517	.8146	1.0000		
PEER_24	.5575	.3930	.2728	1.0000	
PEER_25	.8139	.7341	.5984	.7734	1.0000
PEER 26	.7250	.7806	.8276	1264	.3276

PEER_26

PEER_26 1.0000

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 7.0

 Item Means
 Mean
 Minimum
 Maximum
 Range
 Max/Min
 Variance

 4.1843
 3.4286
 5.0000
 1.5714
 1.4583
 .2016

Item Variances Mean Minimum Maximum Range Max/Min Variance 3.0553 1.0000 4.8095 3.8095 4.8095 .8567

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .6149 -.2591 1.0000 1.2591 -3.8590 .0646

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .6101 .3796 .8860 49.5053 .0000 Average of Raters* .9798 .9499 .9959 49.5053 .0000

Degrees of freedom for F-tests are 6 and 180. Test Value = 0.

Reliability Coefficients 31 items

Alpha = .9798 Standardized item alpha = .9802

^{*} Assumes absence of People*Rater interaction.

	ACI1	ACI2	ACI3	ACI4	ACI5
ACI1	1.0000				
ACI1	.8807	1.0000			
ACI2	.8321	.8660	1.0000		
ACI3	.6999	.7947	.9177	1.0000	
ACI5	.4615	.6005	.6934	.9226	1.0000
ACI6	.4234	.5962	.7184	.9065	.9465
ACIO ACI7	.7970	.8555	.9878	.9683	.7970
ACI7	.6999	.7947	.9177	1.0000	.9226
ACI9	.3203	.4167	.5774	.7947	.8807
ACI10	.5095	.7660	.8165	.9366	.9058
ACI10	.6363	.8278	.5735	.6579	.6363
ACI11	.3721	.7100	.6708	.5643	.3721
ACI12	.4615	.6005	.6934	.9226	1.0000
ACI14	.5095	.7660	.8165	.9366	.9058
ACI15	.0000		.2673	.4292	.5189
ACI16	1632			0900	1632
ACI17	.5095		.8165	.9366	.9058
ACI17	1834		.0945	.1517	.1834
ACI19	.1345		.4851	.7233	.8408
ACI20	0620		.2236	.5643	.8062
ACI21	0620		.2236	.5643	.8062
ACI22	.2545	.5629	.5735	.8158	.9226
ACI23	.0769		.2774	.6363	.8846
ACI24	0620		.2236	.5643	.8062
ACI25	3363			0556	1009
ACI26	4615			2545	1923
ACI27	.0400	.4167	.4330	.5629	.6005
ACI28	3536			0900	.0272
ACI29	.6974		.4056	.1675	0900
ACI30	2831	0589	.0000	.2810	.5095
ACI31	.1345	.4201	.4851	.7233	.8408
	ACI6	ACI7	ACI8	ACI9	ACI10
ACI6	1.0000				
ACI7	.8065	1.0000			
ACI8	.9065	.9683	1.0000		
ACI9	.9592		.7947	1.0000	
ACI10	.9165		.9366	.7660	1.0000
ACI11	.6799		.6579	.5960	.7024

ACI12	.4819	.6426	.5643	.2582	.7303
ACI13	.9465	.7970	.9226	.8807	.9058
ACI14	.9165	.8799	.9366	.7660	1.0000
ACI15	.5040	.3360	.4292	.5401	.3819
ACI16	2113	0352	0900	3114	0400
ACI17	.9165	.8799	.9366	.7660	1.0000
ACI18	.1188	.1188	.1517	.0000	.2700
ACI19	.7841	.5881	.7233	.6651	.8416
ACI20	.7631	.3614	.5643	.7100	.7303
ACI21	.7631	.3614	.5643	.7100	.7303
ACI22	.9065	.6799	.8158	.7947	.9366
ACI23	.7970	.4234	.6363	.8006	.6794
ACI24	.7631	.3614	.5643	.7100	.7303
ACI25	.0218	0218	0556	0700	.1485
ACI26	.0996	2740	2545	.2402	1132
ACI27	.5962	.4926	.5629	.4167	.7660
ACI28	0881	1585	0900	1132	0400
ACI29	0146	.3205	.1675	1171	.1325
ACI30	.4033	.1100	.2810	.3536	.4167
ACI31	.7841	.5881	.7233	.6651	.8416
	ACI11	ACI12	ACI13	ACI14	ACI15
A CI11					
ACI11	1.0000	1 0000			
ACI12	1.0000 .5130	1.0000	1 0000		
ACI12 ACI13	1.0000 .5130 .6363	.3721	1.0000	1 0000	
ACI12 ACI13 ACI14	1.0000 .5130 .6363 .7024	.3721 .7303	.9058	1.0000	1 0000
ACI12 ACI13 ACI14 ACI15	1.0000 .5130 .6363 .7024 .0000	.3721 .7303 .0000	.9058 .5189	.3819	1.0000
ACI12 ACI13 ACI14 ACI15 ACI16	1.0000 .5130 .6363 .7024 .0000 3824	.3721 .7303 .0000 .1754	.9058 .5189 1632	.3819 0400	.5503
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17	1.0000 .5130 .6363 .7024 .0000 3824 .7024	.3721 .7303 .0000 .1754 .7303	.9058 .5189 1632 .9058	.3819 0400 1.0000	.5503 .3819
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517	.3721 .7303 .0000 .1754 .7303 .2958	.9058 .5189 1632 .9058 .1834	.3819 0400 1.0000 .2700	.5503 .3819 .7071
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI19	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451	.3721 .7303 .0000 .1754 .7303 .2958 .4881	.9058 .5189 1632 .9058 .1834 .8408	.3819 0400 1.0000 .2700 .8416	.5503 .3819 .7071 .6806
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI19 ACI20	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000	.9058 .5189 1632 .9058 .1834 .8408	.3819 0400 1.0000 .2700 .8416 .7303	.5503 .3819 .7071 .6806 .4183
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI19 ACI20 ACI21	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000	.9058 .5189 1632 .9058 .1834 .8408 .8062	.3819 0400 1.0000 .2700 .8416 .7303 .7303	.5503 .3819 .7071 .6806 .4183
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI19 ACI20 ACI21 ACI22	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .5130	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .3000	.9058 .5189 1632 .9058 .1834 .8408 .8062 .8062	.3819 0400 1.0000 .2700 .8416 .7303 .7303 .9366	.5503 .3819 .7071 .6806 .4183 .4183
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI19 ACI20 ACI21 ACI22 ACI23	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .5130 .6579	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .3000 .5643 .0620	.9058 .5189 1632 .9058 .1834 .8408 .8062 .8062 .9226 .8846	.3819 0400 1.0000 .2700 .8416 .7303 .7303 .9366 .6794	.5503 .3819 .7071 .6806 .4183 .4183 .4292 .5189
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI19 ACI20 ACI21 ACI22	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .5130	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .3000	.9058 .5189 1632 .9058 .1834 .8408 .8062 .8062	.3819 0400 1.0000 .2700 .8416 .7303 .7303 .9366	.5503 .3819 .7071 .6806 .4183 .4183
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI20 ACI21 ACI22 ACI23 ACI23	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .5130 .6579 .4772	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .3000 .5643 .0620	.9058 .5189 1632 .9058 .1834 .8408 .8062 .8062 .9226 .8846 .8062	.3819 0400 1.0000 .2700 .8416 .7303 .7303 .9366 .6794 .7303	.5503 .3819 .7071 .6806 .4183 .4183 .4292 .5189 .4183
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI19 ACI20 ACI21 ACI22 ACI23 ACI24 ACI25	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .5130 .6579 .4772 .5130 1391	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .3000 .5643 .0620 .3000 .4881	.9058 .5189 1632 .9058 .1834 .8408 .8062 .9226 .8846 .8062 1009	.3819 0400 1.0000 .2700 .8416 .7303 .7303 .9366 .6794 .7303 .1485	.5503 .3819 .7071 .6806 .4183 .4183 .4292 .5189 .4183 .4537
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI20 ACI21 ACI22 ACI23 ACI24 ACI25 ACI25	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .5130 .6579 .4772 .5130 1391	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .3000 .5643 .0620 .3000 .4881	.9058 .5189 1632 .9058 .1834 .8408 .8062 .9226 .8846 .8062 1009 1923	.3819 0400 1.0000 .2700 .8416 .7303 .7303 .9366 .6794 .7303 .1485 1132	.5503 .3819 .7071 .6806 .4183 .4183 .4292 .5189 .4183 .4537 .0000
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI20 ACI21 ACI22 ACI23 ACI24 ACI25 ACI25 ACI26 ACI27	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .5130 .6579 .4772 .5130 1391 .0318	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .5643 .0620 .3000 .4881 .0620 .7100	.9058 .5189 1632 .9058 .1834 .8408 .8062 .9226 .8846 .8062 1009 1923 .6005	.3819 0400 1.0000 .2700 .8416 .7303 .7303 .9366 .6794 .7303 .1485 1132 .7660	.5503 .3819 .7071 .6806 .4183 .4183 .4292 .5189 .4183 .4537 .0000 .5401
ACI12 ACI13 ACI14 ACI15 ACI16 ACI17 ACI18 ACI20 ACI21 ACI22 ACI23 ACI24 ACI25 ACI26 ACI27 ACI28	1.0000 .5130 .6363 .7024 .0000 3824 .7024 1517 .4451 .5130 .6579 .4772 .5130 1391 .0318 .3642 3824	.3721 .7303 .0000 .1754 .7303 .2958 .4881 .3000 .3000 .5643 .0620 .3000 .4881 .0620 .7100 1316	.9058 .5189 1632 .9058 .1834 .8408 .8062 .9226 .8846 .8062 1009 1923 .6005 .0272	.38190400 1.0000 .2700 .8416 .7303 .7303 .9366 .6794 .7303 .14851132 .76600400	.5503 .3819 .7071 .6806 .4183 .4183 .4292 .5189 .4183 .4537 .0000 .5401 .7338

	ACI16	ACI17	ACI18	ACI19	ACI20
ACI16	1.0000	ı			
ACI17	0400	1.0000			
ACI18	.9080	.2700	1.0000		
ACI19	.2854	.8416	.6417	1.0000	
ACI20	1316	.7303	.2958	.8677	1.0000
ACI21	1316	.7303	.2958	.8677	1.0000
ACI22	0900	.9366	.3035	.9181	.9234
ACI23	2176	.6794	.1834	.8072	.9303
ACI24	1316	.7303	.2958	.8677	1.0000
ACI25	.7848	.1485	.8021	.3824	.1085
ACI26	2176	1132	1834	1345	.0620
ACI27	.4812	.7660	.7638	.9102	.7100
ACI28	.8654	0400	.9080	.4519	.1754
ACI29	1909	.1325	3219	2557	3265
ACI30	.5204	.4167	.8101	.8416	.7303
ACI31	.2854	.8416	.6417	1.0000	.8677
	ACI21	ACI22	ACI23	ACI24	ACI25
ACI21	1.0000	1			
ACI22	.9234	1.0000			
ACI23	.9303	.8590	1.0000		
ACI24	1.0000	.9234	.9303	1.0000	
ACI25	.1085	.1391	1345	.1085	1.0000
ACI26	.0620	0318	0769	.0620	.3363
ACI27	.7100	.7947	.5204	.7100	.6651
ACI28	.1754	.0675	.1632	.1754	.6183
ACI29	3265	0930	3824	3265	1180
ACI30	.7303	.6088	.6794	.7303	.4951
ACI31	.8677	.9181	.8072	.8677	.3824
	ACI26	ACI27	ACI28	ACI29	ACI30
ACI26	1.0000	1			
ACI27	0400	1.0000			
ACI28	2176	.4812	1.0000		
ACI29	0675	1171	5249	1.0000	
ACI30	1132	.7660	.8006	5629	1.0000
ACI31	1345	.9102	.4519	2557	.8416

ACI31

ACI31 1.0000

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 7.0

Item Means Mean Minimum Maximum Range Max/Min Variance 5.2949 4.7143 5.7143 1.0000 1.2121 .0693

Item Variances Mean Minimum Maximum Range Max/Min Variance .8418 .2381 2.3333 2.0952 9.8000 .2388

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .4435 -.5629 1.0000 1.5629 -1.7764 .1537

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .3820 .1870 .7588 20.1614 .0000 Average of Raters* .9504 .8770 .9898 20.1614 .0000

Degrees of freedom for F-tests are 6 and 180. Test Value = 0.

Reliability Coefficients 31 items

Alpha = .9504 Standardized item alpha = .9611

RELIABILITY ANALYSIS - SCALE (ALPHA)

Correlation Matrix

PRACT1 PRACT2 PRACT3 PRACT4 PRACT5

PRACT1 1.0000

PRACT2 .7670 1.0000

PRACT3 .0000 .5916 1.0000

^{*} Assumes absence of People*Rater interaction.

PRACT4	.3218	.6455	.3819	1.0000		
PRACT5	1345	4824	5189	1132	1.0000	
PRACT6	.0000	.2415	.4082	.6236	.4237	
PRACT7	.1485	.4196	.3819	.8542	.2831	
PRACT8	3363	1316	.2594	.3114	.6154	
PRACT9	3208	.0000	.5303	.2700	.3669	
PRACT10	.3208	.4183	.1768	.8101	.3669	
PRACT11	.3363	.4385	.0000	.4812	3462	
PRACT12	.1750	.5477	.8101	.3536	0400	
PRACT13	0556	.1814	.4292	.4449	.4136	
PRACT14	2269	.2958	.7500	.5728	.0000	
PRACT15	3824	.0383	.6806	.1980	.1345	
PRACT16	.0000	.5916	1.0000	.3819	5189	
PRACT17	2269	.2958	.7500	.5728	.0000	
PRACT18	.1189	.5892	.5503	.9408	2176	
PRACT19	0556	.1814	.4292	.4449	.4136	
PRACT20	1765	.3068	.9075	.0248	3363	
PRACT21	.2269	.2958	.5000	.0000	.2594	
PRACT22	.1009	.4385	.2594	.8775	0769	
PRACT23	0476	.3721	.3669	.8006	0272	
PRACT24	1750	.0913	.5401	.2652	.3203	
PRACT25	2301	.4000	.8874	.4841	4385	
PRACT26	.5601	.0913	2700	3536	.3203	
PRACT27	3151	0913	.5401	2652	.2402	
GAME28	7179	2582	.5728	0208	.0849	
PRACT29	4985	.0500	.4437	.3712	4385	
PRACT30	7670	3000	.5916	1936	1316	
PRACT31	.2567	.7607	.7201	.9035	3203	
PR	ACT6 P	RACT7	PRACT	8 PRAG	CT9 PR	ACT10
PRACT6	1.0000					
PRACT7	.9354	1.0000				
PRACT8	.8473	.7077	1.0000			
PRACT9	.8660	.6751	.9172	1.0000		
PRACT10	.8660	.9451	.5503	.5000	1.0000	
PRACT11	2118	.0849	1923	3669	.0000	
PRACT12	.6614	.5598	.6005	.7638	.3819	
PRACT13	.8761	.7727	.9226	.9105	.6070	
PRACT14	.8165	.7638	.7783	.8839	.5303	
PRACT15	.7410	.5446	.8072	.9625	.3208	
PRACT16	.4082	.3819	.2594	.5303	.1768	
PRACT17	.8165	.7638	.7783	.8839	.5303	
PRACT18	.5991	.8006	.4079	.3892	.6486	

PRACT30	- 4 18 1	.4108	.3265	.3910	.7670	
	.4824 4385		.0725	.4437 .5916	.2301	
PRACT29			.6088			
PRACT27 GAME28	6005 3114	.7083 .5598	.5629	.5401 .7638	.8052 .8911	
PRACT26	2402	.1667	.1325	2700 5401	0700	
PRACT25	.1754	.7303	.5804	.8874	.7670	
PRACT24	5204	.7500	.8278	.8101	.9102	
PRACT23	.5439	.2831	.3824	.5503	.2140	
PRACT22	.7308	.2402	.4136	.5189	.1345	
PRACT21	5189	.8101	.6438	.5000	.6806	
PRACT20	3363	.8052	.4451	.6806	.7941	
PRACT19	0318	.7947	1.0000	.8584	.8346	
PRACT18	.5439	.4812	.5399	.7338	.3805	
PRACT17	.0000	.8101	.8584	1.0000	.9075	
PRACT16	.0000	.8101	.4292	.7500	.6806	
PRACT15	3363	.8052	.8346	.9075	1.0000	
PRACT14	.0000	.8101	.8584	1.0000	1 0000	
PRACT13	0318	.7947	1.0000	1 0000		
PRACT12	0400	1.0000	1.0000			
PRACT11	1.0000					
P	RACT11	PRACT12	PRACT	Γ13 PR	ACT14	PRACT15
PRACT31	.5879	.7660	.3203	.3819	.6365	
PRACT30	.2415	.0323	.4385	.6275	2092	
PRACT29	.0000	.1452	.1316	.1046	1046	
GAME28	.4677	.2708	.7077	.8101	.0000	
PRACT27	.4410	.1473	.6005	.7638	.0000	
PRACT26	.0000	1473	0400	.0000	.0000	
PRACT25	.4830	.4841	.4385	.6275	.2092	
PRACT24	.8819	.6776	.8006	.9547	.5728	
PRACT23	.4494	.6605	.4079	.2594	.5189	
PRACT22	.4237	.6794	.3462	.1834	.5503	
PRACT21	.6124	.3819	.5189	.7071	.3536	
PRACIAL	.3705	.1980	.3363	.6417	.0000	
PRACT19 PRACT20	.8761	.7727	.9226	.9105	.6070	

PRACT20	.9075	.6806	.2140	.4451	1.0000	
PRACT21	.5000	.5000	.0000	.6438	.6806	
PRACT22	.2594	.5189	.9247	.4136	1009	
PRACT23	.3669	.5503	.8654	.3824	.0476	
PRACT24	.5401	.8101	.3114	.8278	.6651	
PRACT25	.8874	.8874	.7132	.5804	.7670	
PRACT26	2700	2700	4812	.1325	0700	
PRACT27	.5401	.5401	1132	.5629	.8052	
GAME28	.5728	.7638	.2402	.6088	.7179	
PRACT29	.4437	.4437	.6047	.0725	.2301	
PRACT30	.5916	.5916	.0620	.3265	.7670	
PRACT31	.7201	.7201	.9436	.4857	.3967	
]	PRACT21	PRACT22	PRAC'	T23 PR.	ACT24	PRACT25
PRACT21						
PRACT22						
PRACT23			1.0000			
PRACT24		.0400	.1132	1.0000		
PRACT25			.4961	.5477	1.0000	
PRACT26		5204	6794	.1250	4108	
PRACT27		3203	1132	.7500	.4108	
GAME28	.3819	.0849	.2402	.6776	.7100	
PRACT29	4437	.6359	.7132	0913	.6500	
PRACT30	.2958	1316	.0620	.5477	.6500	
PRACT31	.1800	.8006	.8115	.3611	.7303	
]	PRACT26	PRACT27	GAME	E28 PR.	ACT29	PRACT30
PRACT26						
PRACT27						
GAME28	3536		1.0000			
PRACT29			.4841	1.0000		
PRACT30			.9360	.4750	1.0000	
PRACT31	4167	.0278	.2161	.5173	.0913	

PRACT31

PRACT31 1.0000

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 7.0

Item Means Mean Minimum Maximum Range Max/Min Variance 4.8341 3.8571 5.2857 1.4286 1.3704 .0940

Item Variances Mean Minimum Maximum Range Max/Min Variance .9155 .4762 2.4762 2.0000 5.2000 .1977

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .3729 -.8900 1.0000 1.8900 -1.1235 .1539

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .3634 .1743 .7446 18.6979 .0000 Average of Raters* .9465 .8674 .9891 18.6979 .0000

Degrees of freedom for F-tests are 6 and 180. Test Value = 0.

Reliability Coefficients 31 items

Alpha = .9465 Standardized item alpha = .9485

RELIABILITY ANALYSIS - SCALE (ALPHA)

	GAME1	GAME2	GAME3	GAM	IE4	GAME5
GAME1	1.0000)				
GAME2	.4201	1.0000				
GAME3	8402	5000	1.0000			
GAME4	.5423	.0000	3873	1.0000		
GAME5	.1715	6124	.0000	.7906	1.0000)
GAME6	.0379	.2705	2705	.4889	.2209	
GAME7	.4954	3216	3216	.9135	.9191	

^{*} Assumes absence of People*Rater interaction.

GAME8	1588	.0000	.3780	.5855	.4629	
GAME9	4167	.0000	.5410	.2794	.2209	
GAME10	.7647	.4201	8402	.7593	.3430	
GAME11	.3430	.9186	3062	0791	6250	
GAME12	6860	6124	.6124	.1581	.5000	
GAME13	0450	6433	.3216	.6644	.9191	
GAME14	1588	.0000	.3780	.5855	.4629	
GAME15	5941	.0000	.7071	.0000	.0000	
GAME16	3430	.0000	.6124	.3162	.2500	
GAME17	1085	7746	.3873	.4000	.7906	
GAME18	.4118	.4201	4201	.7593	.3430	
GAME19	2425	5774	.5774	.4472	.7071	
GAME20	5119	7833	.7833	.0674	.5330	
GAME21	6002	9186	.6124	.0791	.6250	
GAME22	.5664	.4758	4758	.4914	.0971	
GAME23	.3757	2236	2236	.5196	.5477	
GAME24	2941	8402	.4201	.4339	.8575	
GAME25	4201	.5000	.5000	3873	6124	
GAME26	2425	5774	.0000	4472	.0000	
GAME27	4287	9186	.6124	0791	.5000	
GAME28	6860	3062	.9186	0791	.1250	
GAME29	.0333	.0000	.2379	1229	0971	
GAME30	8402	5000	1.0000	3873	.0000	
GAME30	8402	5000	1.0000	3873	.0000	
GAME30 GAME31	8402 .7939	5000	1.0000 7559	3873 .5855	.0000 .0000	10
GAME30 GAME31	8402 .7939	5000 .7559	1.0000	3873	.0000 .0000	10
GAME30 GAME31	8402 .7939 AME6 C	5000 .7559	1.0000 7559	3873 .5855	.0000 .0000	10
GAME30 GAME31 GAME6	8402 .7939 AME6 C	5000 .7559 GAME7	1.0000 7559	3873 .5855	.0000 .0000	10
GAME30 GAME31 GAME6 GAME7	8402 .7939 AME6 C 1.0000 .2030	5000 .7559 GAME7	1.0000 7559 GAME8	3873 .5855	.0000 .0000	10
GAME30 GAME31 GAME6 GAME7 GAME8	8402 .7939 AME6 C 1.0000 .2030 .5112	5000 .7559 GAME7 1.0000 .3647	1.0000 7559 GAME8 1.0000	3873 .5855 GAM	.0000 .0000	10
GAME30 GAME31 GAME6 GAME7 GAME8 GAME9	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610	5000 .7559 GAME7 1.0000 .3647 .0290	1.0000 7559 GAME8 1.0000 .9202	3873 .5855 GAM 1.0000	.0000 .0000 E9 GAME1	10
GAME30 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439	5000 .7559 GAME7 1.0000 .3647 .0290 .5855	1.0000 7559 GAME8 1.0000 .9202 .1588	3873 .5855 GAM 1.0000 0379	.0000 .0000 E9 GAME 1.0000	10
GAME30 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000	3873 .5855 GAM 1.0000 0379 0552	.0000 .0000 E9 GAME 1.0000 .1715	10
GAME30 GAME31 GAME3 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629	3873 .5855 GAM 1.0000 0379 0552 .4417	.0000 .0000 E9 GAME1 1.0000 .1715 3430	10
GAME30 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770	.0000 .0000 E9 GAME 1.0000 .1715 3430 .0450	10
GAME30 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202	.0000 .0000 E9 GAME1 1.0000 .1715 3430 .0450 .1588	10
GAME30 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14 GAME15	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112 .3825	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647 2274	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000 .8018	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202 .9564	.0000 .0000 E9 GAME1 1.0000 .1715 3430 .0450 .1588 2970	10
GAME30 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14 GAME15 GAME16	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112 .3825 .2209	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647 2274 .1313	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000 .8018 .9258	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202 .9564 .8835	.0000 .0000 E9 GAME 1.0000 .1715 3430 .0450 .1588 2970 1715	10
GAME30 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14 GAME15 GAME16 GAME17	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112 .3825 .2209 3492	5000 .7559 3AME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647 2274 .1313 .6644	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000 .8018 .9258 .2928	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202 .9564 .8835 .0698	.0000 .0000 E9 GAME1 1.0000 .1715 3430 .0450 .1588 2970 1715 2169	10
GAME30 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14 GAME15 GAME15 GAME16 GAME17 GAME18	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112 .3825 .2209 3492 .4167	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647 2274 .1313 .6644 .5855	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000 .8018 .9258 .2928 .4763	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202 .9564 .8835 .0698 .1894	.0000 .0000 E9 GAME1 1.0000 .1715 3430 .0450 .1588 2970 1715 2169 .6471	10
GAME30 GAME31 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14 GAME15 GAME15 GAME16 GAME17 GAME18 GAME19	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112 .3825 .2209 3492 .4167 1562	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647 2274 .1313 .6644 .5855 .5571	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000 .8018 .9258 .2928 .4763 .6547	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202 .9564 .8835 .0698 .1894 .4685	.0000 .0000 E9 GAME1 1.0000 .1715 3430 .0450 .1588 2970 1715 2169 .6471 2425	10
GAME30 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14 GAME15 GAME16 GAME17 GAME18 GAME19 GAME19 GAME20	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112 .3825 .2209 3492 .4167 1562 3767	5000 .7559 3AME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647 2274 .1313 .6644 .5855 .5571 .2799	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000 .8018 .9258 .2928 .4763 .6547 .3948	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202 .9564 .8835 .0698 .1894 .4685 .3296	.0000 .0000 E9 GAME1 1.0000 .1715 3430 .0450 .1588 2970 1715 2169 .6471 2425 5850	10
GAME30 GAME31 GAME31 GAME31 GAME6 GAME7 GAME8 GAME9 GAME10 GAME11 GAME12 GAME13 GAME14 GAME15 GAME15 GAME16 GAME17 GAME18 GAME19	8402 .7939 AME6 C 1.0000 .2030 .5112 .5610 .6439 0552 .1104 .0290 .5112 .3825 .2209 3492 .4167 1562	5000 .7559 GAME7 1.0000 .3647 .0290 .5855 3283 .2626 .7931 .3647 2274 .1313 .6644 .5855 .5571	1.0000 7559 GAME8 1.0000 .9202 .1588 .0000 .4629 .6078 1.0000 .8018 .9258 .2928 .4763 .6547	3873 .5855 GAM 1.0000 0379 0552 .4417 .3770 .9202 .9564 .8835 .0698 .1894 .4685	.0000 .0000 E9 GAME1 1.0000 .1715 3430 .0450 .1588 2970 1715 2169 .6471 2425	10

GAME23 GAME25 GAME26 GAME27 GAME28 GAME29 GAME30 GAME31	3629 .1894 .0000 1562 5522 0552 7937 2705 .3067	.5855 6433 1857 .2626 1313 .0255 3216 .3647	.0000 .4763 .3780 6547 .0000 .6944 0899 .3780 .1429	3629 .4167 .5410 4685 0552 .7730 2789 .5410 1022	.1879 0588 4201 2425 6002 4331 8402 .7939	
(GAME11	GAME12	GAME	E13 GA	ME14	GAME15
GAME11 GAME12 GAME13 GAME14 GAME15 GAME16 GAME17 GAME18 GAME19 GAME20 GAME21 GAME22 GAME22 GAME23 GAME24 GAME25 GAME25 GAME25 GAME26 GAME27 GAME28 GAME29 GAME29	1.000050005252 .0000 .0000 .12505534 .4287353653308125 .6313 .00008575 .6124707168751250 .38853062	1.0000 .6565 .4629 .4330 .5000 .6325 .1715 .7071 .7462 .8750 0971 .2739 .6860 .0000 .0000 .6250 .6250	1.0000 .6078 .2274 .5252 .9135 .3153 .9285 .7838 .7222 .1275 .5754 .8557 3216 1857 .6565 .4596 .1786	1.0000 .8018 .9258 .2928 .4763 .6547 .3948 .2315 .0899 .0000 .4763 .3780 6547 .0000 .6944 0899 .3780	1.0000 .8660 .0000 .0000 .4082 .3693 .2165 3365 4743 .2970 .7071 4082 .0000 .8660 1682	
GAME31	.6944	4629	1216	.1429	2673	
•	GAME16	GAME17	GAME	E18 GA	ME19	GAME20
GAME16 GAME17 GAME18 GAME19 GAME20 GAME21 GAME22 GAME23	1.0000 .3162 .3430 .7071 .5330 .2500 .0971	1.0000 .1085 .8944 .8765 .7906 .1229 .6928	1.0000 .2425 1463 1715 .8329 .5636	1.0000 .9045 .7071 .1374 .5164	1.0000 .8528 1657 .3503	

GAME24	.3430	.7593	0588	.7276	.7313	
GAME25	.6124	3873	.0000	.0000	.0000	
GAME26	7071	.0000	7276	3333	.0000	
GAME27	.1250	.8696	3430	.7071	.9061	
GAME28	.8750	.3953	0857	.7071	.7462	
GAME29	.1943	.4300	.1666	.4121	.4142	
GAME30	.6124	.3873	4201	.5774	.7833	
GAME31	.0000	2928	.7939	2182	5922	
GAME21	GAME22	2 GAMI	E23 GA	AME24	GAME25	5
GAME21						
GAME22		1.0000				
GAME23		.7448	1.0000			
GAME24		3665	.1879	1.0000		
GAME25		.0000	4472	4201	1.0000	
GAME26		6868	2582	.2425	5774	
GAME27		2428	.4108	.6860	3062	
GAME28		2428	1369	.4287	.6124	
GAME29	.0486	.5849	.6384	2332	.2379	
GAME30	.6124	4758	2236	.4201	.5000	
GAME31	6944	.8093	.3381	4763	.0000	
	GAME26	GAME27	GAMI	E28 GA	AME29	GAME30
GAME26	1.0000					
GAME27	.3536	1.0000				
GAME28	3536	.4375	1.0000			
GAME29	4121	.3885	.2428	1.0000		
GAME30	.0000	.6124	.9186	.2379	1.0000	
GAME31	6547	6944	4629	.0899	7559	

GAME31

GAME31 1.0000

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 6.0

 Item Means
 Mean
 Minimum
 Maximum
 Range
 Max/Min
 Variance

 4.5269
 3.1667
 5.5000
 2.3333
 1.7368
 .2261

Item Variances Mean Minimum Maximum Range Max/Min Variance

.8753 .2667 2.0000 1.7333 7.5000 .2178

Inter-item

Correlations Mean Minimum Maximum Range Max/Min Variance .1588 -.9186 1.0000 1.9186 -1.0887 .2219

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .1636 .0509 .5741 7.0616 .0000 Average of Raters* .8584 .6244 .9766 7.0616 .0000

Degrees of freedom for F-tests are 5 and 150. Test Value = 0.

Reliability Coefficients 31 items

Alpha = .8584 Standardized item alpha = .8541

Round One Reliability Analysis of Ranked Data by activity

***** Method 2 (covariance matrix) will be used for this analysis *****

	RPEER1	RPEER_2	RPEER	3 RPEI	ER4 R	PEER5
RPEER1	1.0000					
RPEER_	2 .5960	1.0000				
RPEER3	.7424	.4282	1.0000			
RPEER4	.8721	.5594	.9548	1.0000		
RPEER5	.9065	.6740	.8113	.9237	1.0000	
RPEER6	.7587	.7638	.3568	.4930	.5940	
RPEER7	.9105	.7638	.7135	.7888	.8316	
RPEER8	.6190	.4523	.8098	.7525	.5784	
RPEER9	.3583	.4959	.1264	.1280	.3506	
RPEER10	0 .8241	.7777	.4601	.5756	.6935	
RPEER1	1 .8241	.7777	.4601	.5756	.6935	
RPEER12	2 .3338	.0700	.6214	.5242	.1742	
RPEER1	3 .5286	.0700	.5069	.3977	.3267	
RPEER1	41357	3416	3191	3528	1063	
RPEER1:	5 .4474	.1325	.2011	.1539	.1854	

^{*} Assumes absence of People*Rater interaction.

RPEER16	.4474	.1325	.2011	.1539	.1854	
RPEER17	.7623	.6740	.6418	.6426	.6613	
RPEER18	.6786	.6831	.3989	.4410	.5313	
RPEER19	.5804	.5477	.5330	.4714	.4686	
RPEER20	.6786	.6831	.3989	.4410	.5313	
RPEER21	.7623	.6740	.6418	.6426	.6613	
RPEER22	.7623	.6740	.6418	.6426	.6613	
RPEER23	.2810	3536	.5230	.3347	.1466	
RPEER24	.4136	2402	.0935	.0827	.0996	
RPEER25	.6786	.6831	.3989	.4410	.5313	
RPEER26	.6402	.5556	.6617	.6455	.7777	
RPEER27	.7788	.6030	.8333	.7915	.7347	
RPEER28	.4792	.4523	.4812	.4801	.3596	
RPEER39	.1574	1980	.4278	.3068	.0462	
RPEER30	.4049	1132	.6611	.5847	.3346	
RPEER31	.7506	.6111	.7006	.7603	.6740	
	RPEER6	RPEER7	RPEER	8 RPEI	ER9 R	PEER10
RPEER6	1.0000					
RPEER7	.8750	1.0000				
RPEER8	.3454	.6908	1.0000			
RPEER9	.6198	.6198	.1767	1.0000		
RPEER10			.5159	.7293	1.0000	
RPEER11			.5159	.7293	1.0000	
RPEER12			.6966	3409	.1307	
RPEER13			.5489	.5871	.5881	
RPEER14			4119	.5544	.0000	
RPEER15			.3395	.7345	.6799	
RPEER16			.3395	.7345	.6799	
RPEER17			.6878	.7433	.9194	
RPEER18			.5149	.8315	.9563	
RPEER19			.6331	.7902	.8235	
RPEER20			.5149	.8315	.9563	
RPEER21			.6878	.7433	.9194	
RPEER22			.6878	.7433	.9194	
RPEER23			.4619	.1594	.1100	
RPEER24			.1448	.4115	.4234	
RPEER25			.5149	.8315	.9563	
RPEER26			.4858	.7664	.6740	
RPEER27			.8030	.5845	.7973	
RPEER28	.6908	.5757	.2576	.1767	.5159	
RPEER39	.1134	.1134	.1194 .3073	2544 3063	0462 .0352	

RPEER31 .7638 .7638 .4523 .1803 .6567

RPEER11 RPEER12 RPEER13 RPEER14 RPEER15 RPEER11 1.0000 RPEER12 .1307 1.0000 RPEER13 .5881 .3824 1.0000 1.0000 .0000 -.7174 .2870 RPEER14 RPEER15 .6799 .1391 .9181 .4072 1.0000 .6799 RPEER16 .1391 .9181 .4072 1.0000 RPEER17 .9194 .3267 .7841 .0000 .7623 .9563 .1435 .7174 .8143 RPEER18 .1000 RPEER19 .8235 .3068 .8437 .0935 .8343 RPEER20 .9563 .1435 .7174 .1000 .8143 RPEER21 .9194 .3267 .7841 .0000 .7623 .9194 .3267 .7841 .0000 .7623 RPEER22 RPEER23 .1100 .4951 .8416 .2415 .6088 RPEER24 .4234 .1009 .8072 .4922 .8590 RPEER25 .9563 .1435 .7174 .1000 .8143 -.0700 .4857 RPEER26 .6740 .5835 .3416 .7973 .4855 .7811 .6390 RPEER27 -.1030RPEER28 .5159 .5489 .4011 -.4119 .3395 RPEER39 -.0462 .6655 .3744 -.3044 .1574 .7135 .0900 RPEER30 .0352 .3805 -.3481 RPEER31 .6567 .5601 .3967 -.4554 .2870 RPEER16 RPEER17 RPEER18 RPEER19 RPEER20 1.0000 RPEER16 .7623 1.0000 RPEER17 RPEER18 .8143 .9563 1.0000 RPEER19 .8343 .9655 .9354 1.0000 RPEER20 .8143 .9563 1.0000 .9354 1.0000 RPEER21 .7623 1.0000 .9563 .9655 .9563 RPEER22 .7623 1.0000 .9563 .9655 .9563 .4841 RPEER23 .6088 .4033 .2415 .2415 RPEER24 .8590 .4483 .4922 .4824 .4922 RPEER25 .8143 .9563 1.0000 .9354 1.0000 .7303 RPEER26 .4857 .7777 .6831 .6831 .6390 .9536 .8239 .9083 .8239 RPEER27 .5784 .5149 .5149 RPEER28 .3395 .5367 RPEER39 .1574 .1540 .0000 .0000 .1763 .1550 .0000 RPEER30 .0900 .2113 .0000 RPEER31 .2870 .6740 .5693 .5477 .5693

RPEER21	RPEER22	RPEER23	RPEER24	RPEER25
KEERZI	KEEEKZZ	$\mathbf{K}\mathbf{F}\mathbf{G}\mathbf{G}\mathbf{K}\mathbf{Z}\mathbf{J}$	NFEERZ4	$\mathbf{K}\mathbf{F}\mathbf{E}\mathbf{E}\mathbf{K}\mathbf{Z}.\mathbf{J}$

RPEER21	1.0000				
RPEER22	1.0000	1.0000			
RPEER23	.4033	.4033	1.0000		
RPEER24	.4483	.4483	.6794	1.0000	
RPEER25	.9563	.9563	.2415	.4922	1.0000
RPEER26	.7777	.7777	.3536	.2402	.6831
RPEER27	.9536	.9536	.5330	.3621	.8239
RPEER28	.5784	.5784	.2132	.1448	.5149
RPEER39	.1540	.1540	.5601	.2140	.0000
RPEER30	.2113	.2113	.6005	.2176	.0000
RPEER31	.6740	.6740	.1964	.1334	.5693

RPEER26 RPEER27 RPEER28 RPEER39 RPEER30

RPEER26	1.0000				
RPEER27	.8040	1.0000			
RPEER28	.2513	.5909	1.0000		
RPEER39	0330	.2985	.7464	1.0000	
RPEER30	.1132	.4097	.6657	.9249	1.0000
RPEER31	.4259	.7203	.9213	.6106	.6794

RPEER31

RPEER31 1.0000

N of Cases = 7.0

Item Means Mean Minimum Maximum Range Max/Min Variance 2.8802 2.1429 3.5714 1.4286 1.6667 .1280

Item Variances Mean Minimum Maximum Range Max/Min Variance 1.4301 .6190 2.6190 2.0000 4.2308 .1736

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .5112 .2870 .8396 33.4215 .0000 Average of Raters* .9701 .9258 .9939 33.4215 .0000

Degrees of freedom for F-tests are 6 and 180. Test Value = 0.

* Assumes absence of People*Rater interaction.

Reliability Coefficients 31 items

Alpha = .9701 Standardized item alpha = .9707

	RACI1	RACI2	RACI3	RACI4	RACI5
RACI1	1.0000				
RACI2	.6364	1.0000			
RACI3	.8839	.4750	1.0000		
RACI4	.7100	.8672	.5477	1.0000	
RACI5	.3000	.6364	.3889	.7100	1.0000
RACI6	.6617	.6331	.6331	.8040	.3892
RACI7	.3000	.6364	.3889	.7100	1.0000
RACI8	3721	.1316	1754	.2402	.4961
RACI9	2008	.1704	0284	.3111	.3614
RACI10	.7100	.8672	.5477	1.0000	.7100
RACI11	.6617	.6331	.6331	.8040	.3892
RACI12	2582	.0913	5477	.1667	2582
RACI13	2582	.0913	.0913	.1667	.6455
RACI14	4000	3536	6010	1936	4000
RACI15	1557	1376	.0550	.1005	.1168
RACI16	3721	4824	4824	3203	3721
RACI17	2582	.0913	.0913	.1667	.6455
RACI18	5130	3265	3265	1325	.2052
RACI19	0430	.1217	.3347	.2222	.5594
RACI20	.2052	.1814	.4353	.3311	.2052
RACI21	2582	.0913	.0913	.1667	.6455
RACI22	2582	.0913	.0913	.1667	.6455
RACI23	4000	3536	1061	1936	.3000
RACI24	5130	3265	3265	1325	.2052
RACI25	5292	1871	3742	.0000	.2646
RACI26	4819	2272	6248	0518	2008
RACI27	4000	3536	1061	1936	.3000
RACI28	4961	7455	2850	5204	0620
RACI29	4000	3536	6010	1936	4000
RACI30	3721	4824	4824	3203	3721
RACI31	4000	3536	1061	1936	.3000

	RA	.CI6 R	ACI7	RACI8	RACI9	RACI10
RACI6	1.0000					
RACI7	.3892	1.0000				
RACI8	.3621	.4961	1.0000			
RACI9	.5784	.3614	.9465	1.0000		
RACI10	.8040	.7100	.2402	.3111	1.0000	
RACI11	1.0000	.3892	.3621	.5784	.8040	
RACI12	.2513	2582	.3203	.4148	.1667	
RACI13	.2513	.6455	.8807	.7777	.1667	
RACI14	1557	4000	.0620	.0803	1936	
RACI15	.4697	.1168	.7001	.7973	.1005	
RACI16	3138	3721	0769	0996	3203	
RACI17	.2513	.6455	.8807	.7777	.1667	
RACI18	0599	.2052	.6363	.5357	1325	
RACI19	.4523	.5594	.8006	.7950	.2222	
RACI20	.7788	.2052	.6363	.8241	.3311	
RACI21	.2513	.6455	.8807	.7777	.1667	
RACI22	.2513	.6455	.8807	.7777	.1667	
RACI23	1557	.3000	.4961	.3614	1936	
RACI24	0599	.2052	.6363	.5357	1325	
RACI25	.1030	.2646	.8204	.7438	.0000	
RACI26	.0313	2008	.4234	.4355	0518	
RACI27	1557	.3000	.4961	.3614	1936	
RACI28	5311	0620	.0769	0747	5204	
RACI29	1557	4000	.0620	.0803	1936	
RACI30	3138	3721	0769	0996	3203	
RACI31	1557			.3614		
	RACI11	RACI12	RACI1	3 RAC	I14 RA	CI15
RACI11	1.0000)				
RACI12	.2513	1.0000)			
RACI13	.2513	1667				
RACI14	1557			1.0000		
RACI15	.4697	.2513	.6030	.3892	1.0000	
RACI16	3138		2402	.9303	.3621	
RACI17	.2513	1667	1.0000			
RACI18	0599		.5960	.5643	.7788	
RACI19	.4523	2222	.9444	3443	.6868	
RACI20	.7788	.1325	.5960	1539	.7788	
RACI23	1557			.3000	.6617	
RACI21 RACI22 RACI23	.2513 .2513	1667 1667 2582	1.0000 1.0000 .6455	2582	.6030	

RACI24 RACI25	0599 .1030	.1325 .3416	.5960 .6831	.5643	.7788 .8239
RACI26	.0313	.7777	.0518	.3614	.1407
RACI27	1557	2582	.6455	.3000	.6617
RACI28	5311	3203	.2402	.3721	.3138
RACI29	1557	.6455	2582	.3000	1557
RACI30	3138		2402	.9303	.3621
RACI31	1557	2582	.6455	.3000	.6617
	RACI16	RACI17	RACI18	RACI	19 RACI20
RACI16	1.0000				
RACI17	2402	1.0000			
RACI18	.6363	.5960	1.0000		
RACI19	3203	.9444	.4857	1.0000	
RACI20	2545	.5960	.2632	.7947	1.0000
RACI21	2402	1.0000	.5960	.9444	.5960
RACI22	2402	1.0000	.5960	.9444	.5960
RACI23	.4961	.6455	.9234	.5594	.2052
RACI24	.6363	.5960	1.0000	.4857	.2632
RACI25	.4922	.6831	.9501	.5693	.4072
RACI26	.0747	.0518	.1030	0518	.1030
RACI27	.4961	.6455	.9234	.5594	.2052
RACI28	.6154	.2402	.6999	.1334	1909
RACI29	.0620	2582	1539	3443	1539
RACI30	1.0000	2402	.6363	3203	2545
RACI31	.4961	.6455	.9234	.5594	.2052
	RACI21	RACI22	RACI23	RACI	24 RACI25
RACI21	1.0000				
RACI22	1.0000	1.0000			
RACI23	.6455	.6455	1.0000		
RACI24	.5960	.5960	.9234	1.0000	
RACI25	.6831	.6831	.7937	.9501	1.0000
RACI26	.0518	.0518	2008	.1030	.3188
RACI27	.6455	.6455	1.0000	.9234	.7937
RACI28	.2402	.2402	.8062	.6999	.4922
RACI29	2582	2582	4000	1539	.0000
RACI30	2402	2402	.4961	.6363	.4922
RACI31	.6455	.6455	1.0000	.9234	.7937

RACI26	RACI27	RACI28	RACI29	RAC	CI30
RACI26	1.0000				
RACI27	2008	1.0000			
RACI28	0747	.8062	1.0000		
RACI29	.9237	4000	0620	1.0000	
RACI30	.0747	.4961	.6154	.0620	1.0000
RACI31	2008	1.0000	.8062	4000	.4961

RACI31

RACI31 1.0000

N of Cases = 7.0

Item Means Mean Minimum Maximum Range Max/Min Variance 1.6129 1.1429 2.2857 1.1429 2.0000 .0996

Item Variances Mean Minimum Maximum Range Max/Min Variance .8740 .1429 1.9048 1.7619 13.3333 .2586

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .2357 .0951 .6201 10.5587 .0000 Average of Raters* .9053 .7652 .9806 10.5587 .0000

Degrees of freedom for F-tests are 6 and 180. Test Value = 0.

* Assumes absence of People*Rater interaction.

Reliability Coefficients 31 items

Alpha = .9053 Standardized item alpha = .9065

RPRACT1 RPRACT2 RPRACT3 RPRACT4 RPRACT5

RPRACT1 1.0000 RPRACT2 .1345 1.0000 RPRACT3 .8549 .4328 1.0000 RPRACT4 .8062 .1085 .5622 1.0000

RPRACT5	.5892	4610	.1814	.4750	1.0000
RPRACT6	.8590	.0556	.8746	.5130	.3334
RPRACT7	.8006	4201	.6088	.6455	.6455
RPRACT8	.3721	6508	.1814	0500	.6500
RPRACT9	.4079	2140	.4772	1316	.1754
RPRACT10	.5983	0476	.5886	.0219	.4824
RPRACT11	.8590	.0556	.7443	.8721	.3334
RPRACT12	.8006	4201	.6088	.6455	.6455
RPRACT13	.7308	3363	.5399	.3721	.5892
RPRACT14	.8062	.1085	.8162	.3000	.4750
RPRACT15	.8473	.0000	.8673	.6831	.3416
RPRACT16	.6939	.0934	.7024	.2582	.5594
RPRACT17	.8807	0700	.7024	.4841	.7100
RPRACT18	.6363	3338	.6141	.1539	.5130
RPRACT19	.4772	4451	.2977	.0256	.5643
RPRACT20	.8800	.4991	.9320	.7094	.3068
RPRACT21	.8807	0700	.7024	.4841	.7100
RPRACT22	.7308	3363	.5399	.3721	.5892
RPRACT23	.4615	8072	.0675	.3721	.8062
RPRACT24	.4270	4201	.3902	1076	.4949
RPRACT25	.3721	6508	.1814	0500	.6500
RPRACT26	.6227	.1307	.6264	.0803	.3614
RPRACT27	.4237	3705	.1239	.1708	.8539
RPRACT28	.2594	6806	.0000	.0000	.8367
RPRACT29	.5204	.0700	.4449	.4196	.6455
RPRACT30	.3363	3824	.1180	.0813	.8406
RPRACT31	.3363	.0294	.3934	.4610	.2712

RPRACT6 RPRACT7 RPRACT8 RPRACT9 RPRACT10

RPRACT6	1.0000				
RPRACT7	.7947	1.0000			
RPRACT8	.5130	.6455	1.0000		
RPRACT9	.7199	.5095	.7894	1.0000	
RPRACT10	.7199	.5095	.7894	.8654	1.0000
RPRACT11	.8158	.7947	.1539	.2475	.2475
RPRACT12	.7947	1.0000	.6455	.5095	.5095
RPRACT13	.8590	.8006	.8062	.7887	.7887
RPRACT14	.8721	.6455	.6500	.7894	.9428
RPRACT15	.8761	.8819	.3416	.4494	.4494
RPRACT16	.5960	.5556	.5594	.5473	.8115
RPRACT17	.8278	.7500	.7100	.6794	.8775
RPRACT18	.8158	.7947	.8721	.8773	.8773
RPRACT19	.6579	.5960	.9234	.8549	.8549

RPRACT20	.7082	.5446	.0383	.2186	.4541
RPRACT21	.8278	.7500	.7100	.6794	.8775
RPRACT22	.8590	.8006	.8062	.7887	.7887
RPRACT23	.4136	.8006	.8062	.4079	.4079
RPRACT24	.6402	.6111	.9467	.9058	.9058
RPRACT25	.5130	.6455	1.0000	.7894	.7894
RPRACT26	.7623	.4148	.6426	.8278	.9510
RPRACT27	.1752	.4410	.6831	.2996	.5991
RPRACT28	.2146	.5401	.8367	.3669	.5503
RPRACT29	.3311	.4167	.1936	0849	.3114
RPRACT30	.1391	.4201	.6508	.2140	.5470
RPRACT31	.1391	.4201	1085	2854	1189

RPRACT11 RPRACT12 RPRACT13 RPRACT14 RPRACT15

RPRACT11	1.0000				
RPRACT12	.7947	1.0000			
RPRACT13	.6363	.8006	1.0000		
RPRACT14	.5130	.6455	.8062	1.0000	
RPRACT15	.8761	.8819	.6355	.6831	1.0000
RPRACT16	.2870	.5556	.5071	.8607	.5879
RPRACT17	.5960	.7500	.8807	.9360	.6614
RPRACT18	.4474	.7947	.8590	.8721	.7009
RPRACT19	.2895	.5960	.9226	.7438	.3504
RPRACT20	.7082	.5446	.3805	.7094	.7859
RPRACT21	.5960	.7500	.8807	.9360	.6614
RPRACT22	.6363	.8006	1.0000	.8062	.6355
RPRACT23	.4136	.8006	.7308	.3721	.4237
RPRACT24	.1766	.6111	.8006	.7961	.4410
RPRACT25	.1539	.6455	.8062	.6500	.3416
RPRACT26	.3296	.4148	.7970	.9237	.4115
RPRACT27	.0000	.4410	.4237	.5123	.1667
RPRACT28	.0000	.5401	.5189	.4183	.2041
RPRACT29	.3311	.4167	.2402	.4196	.4410
RPRACT30	0556	.4201	.3363	.4610	.1852
RPRACT31	.3338	.4201	1345	.0813	.5557

RPRACT16 RPRACT17 RPRACT18 RPRACT19 RPRACT20

RPRACT16	1.0000				
RPRACT17	.8056	1.0000			
RPRACT18	.7506	.8278	1.0000		
RPRACT19	.4857	.7947	.8421	1.0000	
RPRACT20	.7261	.6683	.4328	.1180	1.0000

RPRACT21	.8056	1.0000	.8278	.7947	.6683
RPRACT22	.5071	.8807	.8590	.9226	.3805
RPRACT23	.3203	.6005	.6363	.6999	.0476
RPRACT24	.6852	.7500	.9492	.9051	.1980
RPRACT25	.5594	.7100	.8721	.9234	.0383
RPRACT26	.6740	.8555	.7623	.8241	.4774
RPRACT27	.7349	.6614	.5257	.5257	.2620
RPRACT28	.5401	.5401	.6438	.6438	.0000
RPRACT29	.5556	.4583	.3311	.1325	.5446
RPRACT30	.7235	.5601	.5286	.4451	.2288
RPRACT31	.3967	.0700	.1391	3338	.5199

RPRACT21 RPRACT22 RPRACT23 RPRACT24 RPRACT25

RPRACT21	1.0000				
RPRACT22	.8807	1.0000			
RPRACT23	.6005	.7308	1.0000		
RPRACT24	.7500	.8006	.6138	1.0000	
RPRACT25	.7100	.8062	.8062	.9467	1.0000
RPRACT26	.8555	.7970	.2740	.7777	.6426
RPRACT27	.6614	.4237	.6355	.5879	.6831
RPRACT28	.5401	.5189	.7783	.7201	.8367
RPRACT29	.4583	.2402	.2402	.2222	.1936
RPRACT30	.5601	.3363	.5718	.5835	.6508
RPRACT31	.0700	1345	.1009	0700	1085

RPRACT26 RPRACT27 RPRACT28 RPRACT29 RPRACT30

RPRACT26	1.0000				
RPRACT27	.4115	1.0000			
RPRACT28	.3360	.8165	1.0000		
RPRACT29	.2333	.4410	.5401	1.0000	
RPRACT30	.3267	.9262	.9075	.6651	1.0000
RPRACT31	2831	.1852	.2269	.6651	.3824

RPRACT31

RPRACT31 1.0000

N of Cases = 7.0

Item Means Mean Minimum Maximum Range Max/Min Variance 2.6083 1.8571 3.2857 1.4286 1.7692 .1129

Item Variances Mean Minimum Maximum Range Max/Min Variance .9140 .1429 1.8095 1.6667 12.6667 .1210

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .4810 .2617 .8231 29.7248 .0000 Average of Raters* .9664 .9166 .9931 29.7248 .0000

Degrees of freedom for F-tests are 6 and 180. Test Value = 0.

* Assumes absence of People*Rater interaction. Reliability Coefficients 31 items

Alpha = .9664 Standardized item alpha = .9694

Correlation Matrix

* * * RGAME26 has zero variance

	RGAME1	RGAME2	RGAN	ME3 R	GAME4	RGAMI
RGAME	1.000	0				
RGAME	2 .7082	2 1.0000				
RGAME	3 .2365	.5582	1.0000			
RGAME	4 .8052	.9366	.2483	1.0000		
RGAME	5 .6683	.1325	0468	.2652	1.0000	
RGAME	6 .7500	.6689	.7372	.5426	.3713	
RGAME	7 .5426	.8663	.2152	.8958	.1473	
RGAME	8 .3151	0468	3311	.1250	.4714	
RGAME	90813	3 .1814	.5643	0323	.0913	
RGAME	.957	1 .7506	.4995	.7464	.6111	
RGAME	.454	1 .7199	.9703	.4604	.0849	
RGAME	.118	9 .2545	0900	.3114	3203	
RGAME	297	62107	6788	0208	5598	
RGAME	677	94353	3847	4196	4108	
RGAME	544	61766	1561	2161	9444	
RGAME	255	7 .0789	2233	.1171	7947	
RGAME	.321	8 .5960	0468	.6776	1667	
RGAME	.131	0 .5257	.2478	.4677	4410	
RGAME	20461	00725	3334	0323	8672	

RGAME19 RGAME21 RGAME22 RGAME24 RGAME24	.3218 2 .3218 31941 40197	.5960 .5960 0799 2632	4292 0468 0468 5648 4280 .5804	.5401 .6776 .6776 .0888 1171 0913	.0000 1667 1667 6030 3642 6455	
	.1574		4838	.2810	3311	
RGAME28			.0993	.6042		
RGAME29			6070	.1909		
RGAME30			3022			
RGAME31	.1345	.3824	3022	.5204	4812	
F	RGAME6	RGAME7	RGAM	1E8 RO	GAME9	RGAME10
RGAME6	1.0000					
RGAME7	.3151	1.0000				
RGAME8	0700	1250	1.0000			
RGAME9	.2712	.2582	7100	1.0000		
RGAME10	.8911	.4910	.1964	.0913	1.0000	
RGAME11	.8408	.3803	2402	.4961	.6794	
RGAME12	.0476	.0849	.5095	7455	.0534	
RGAME13	5601	.0208	1667	4841	4910	
RGAME14	6508	0323	6455	.4000	7303	
RGAME15	3796	1964	3536	3347	5556	
RGAME16	2951	.0468	0468	5804	3311	
RGAME17	.0248	.5598	.4714	5477	.2222	
RGAME18	.1310	.3118	.3118	4830	.1470	
RGAME20	4881	.0323	2582	4000	5477	
RGAME19	.0000	.2700	.5401	8367	.2546	
RGAME21	.0248	.5598	.4714	5477	.2222	
RGAME22	.0248	.5598	.4714	5477	.2222	
RGAME23	4329	.0355	0355	6331	3685	
RGAME24	1180	3746	.0468	6892	1325	
RGAME25	.2301	2282	0913	1414	0430	
RGAME27	1574	.0468	.2810	8343	0221	
RGAME28	.4376	.2708	.4583	6455	.4910	
RGAME29	4813	.1909	.0000	5916	3600	
RGAME30	.2186	1001	.2402	7132	.2453	
RGAME31	1345	.4604	0400	4961	0189	
F	RGAME11	RGAME12	RGA	ME13 I	RGAME14	RGAME15

RGAME11 1.0000 RGAME12 -.0272 1.0000

RGAME13	6605	.3114	1.0000			
RGAME14	4961	4824	.4841	1.0000		
RGAME15	2453	.4270	.7464	.3347	1.0000	
RGAME16	2250	.6999	.7727	.0725	.9051	
RGAME17	.0849	.8006	.2652	4108	.2222	
RGAME18	.2996	.8473	.1559	4830	.4410	
RGAME20	3721	.4824	.8714	.4000	.9433	
RGAME19	2594	.7338	.5401	4183	.2546	
RGAME21	.0849	.8006	.2652	4108	.2222	
RGAME22	.0849	.8006	.2652	4108	.2222	
RGAME23	5292	.5311	.9594	.2477	.8040	
RGAME24	4049	.4136	.7024	0725	.6402	
RGAME25	.4824	.4961	0913	3536	.5594	
RGAME27	3824	.6999	.7727	1814	.5960	
RGAME28	.2402	.8775	.1667	7100	.2161	
RGAME29	5503	.5189	.9547	.2958	.7201	
RGAME30	1923	.5983	.5204	3721	.3774	
RGAME31	1923	.5983	.8006	.0620	.6416	
RC	SAME16	RGAME17	RGAN	ME18 R	GAME20	RGAME19
RGAME16		1 0000				
RGAME17	.5960	1.0000				
D.G. L. VELLO	= 000		1 0000			
RGAME18	.7009	.8819	1.0000	1 0000		
RGAME20	.9431	.8819 .4108	.4830	1.0000	1 0000	
RGAME20 RGAME19	.9431 .6070	.8819 .4108 .7638	.4830 .5774	.4183	1.0000	
RGAME20 RGAME19 RGAME21	.9431 .6070 .5960	.8819 .4108 .7638 1.0000	.4830 .5774 .8819	.4183 .4108	.7638	
RGAME20 RGAME19 RGAME21 RGAME22	.9431 .6070 .5960	.8819 .4108 .7638 1.0000 1.0000	.4830 .5774 .8819 .8819	.4183 .4108 .4108	.7638 .7638	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23	.9431 .6070 .5960 .5960	.8819 .4108 .7638 1.0000 1.0000 .4523	.4830 .5774 .8819 .8819	.4183 .4108 .4108 .9083	.7638 .7638 .6908	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24	.9431 .6070 .5960 .5960 .8986 .6579	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993	.4830 .5774 .8819 .8819 .3989 .1752	.4183 .4108 .4108 .9083 .5804	.7638 .7638 .6908 .6070	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25	.9431 .6070 .5960 .5960 .8986 .6579	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582	.4830 .5774 .8819 .8819 .3989 .1752 .6831	.4183 .4108 .4108 .9083 .5804 .3536	.7638 .7638 .6908 .6070 .0000	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27	.9431 .6070 .5960 .5960 .8986 .6579 .5130	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257	.4183 .4108 .4108 .9083 .5804 .3536 .6892	.7638 .7638 .6908 .6070 .0000	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582	.7638 .7638 .6908 .6070 .0000 .9105 .8101	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071	
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30 RGAME31	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584 .5399 .8549	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401 .3114	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996 .5991	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721 .8062	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783 .7783	DCAMES
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30 RGAME31	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584 .5399 .8549	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996 .5991	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721 .8062	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783	RGAME25
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30 RGAME31	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584 .5399 .8549	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401 .3114	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996 .5991	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721 .8062	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783 .7783	RGAME25
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30 RGAME31	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584 .5399 .8549	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401 .3114 .7077	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996 .5991	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721 .8062	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783 .7783	RGAME25
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30 RGAME31	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584 .5399 .8549 .8549	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401 .3114 .7077 RGAME22	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996 .5991 RGAM	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721 .8062	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783 .7783	RGAME25
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30 RGAME31	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584 .5399 .8549 .8549 .8000 1.0000 .4523	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401 .3114 .7077 RGAME22	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996 .5991 RGAM	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721 .8062	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783 .7783	RGAME25
RGAME20 RGAME19 RGAME21 RGAME22 RGAME23 RGAME24 RGAME25 RGAME27 RGAME28 RGAME29 RGAME30 RGAME31	.9431 .6070 .5960 .5960 .8986 .6579 .5130 .8158 .5385 .8584 .5399 .8549 .8549	.8819 .4108 .7638 1.0000 1.0000 .4523 .0993 .2582 .5960 .7660 .5401 .3114 .7077 RGAME22	.4830 .5774 .8819 .8819 .3989 .1752 .6831 .5257 .7795 .4082 .2996 .5991 RGAM	.4183 .4108 .4108 .9083 .5804 .3536 .6892 .2582 .8874 .3721 .8062	.7638 .7638 .6908 .6070 .0000 .9105 .8101 .7071 .7783 .7783	RGAME25

RGAME27	.5960	.5960	.8986	.8421	.1539
RGAME28	.7660	.7660	.4086	.4449	.4108
RGAME29	.5401	.5401	.9770	.6438	.0000
RGAME30	.3114	.3114	.6486	.8773	.1316
RGAME31	.7077	.7077	.8876	.5624	.1316

RGAME27 RGAME28 RGAME29 RGAME30 RGAME31

RGAME27	1.0000				
RGAME28	.7024	1.0000			
RGAME29	.8584	.3819	1.0000		
RGAME30	.8549	.7406	.5503	1.0000	
RGAME31	.8549	.6005	.9172	.5962	1.0000

N of Cases = 7.0

Item Means Mean Minimum Maximum Range Max/Min Variance 2.8429 2.1429 3.5714 1.4286 1.6667 .1370

Item Variances Mean Minimum Maximum Range Max/Min Variance .9556 .2857 1.8095 1.5238 6.3333 .1694

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .2060 .0780 .5829 8.7824 .0000 Average of Raters* .8861 .7174 .9767 8.7824 .0000

Degrees of freedom for F-tests are 6 and 174. Test Value = 0.

RELIABILITY ANALYSIS - SCALE (ALPHA) Reliability Coefficients 30 items

Alpha = .8861 Standardized item alpha = .8874

Round Two Reliability Analysis of Rated data by Activity

RELIABILITY ANALYSIS - SCALE (ALPHA)

^{*} Assumes absence of People*Rater interaction.

* * * PEER_24 has zero variance

Correlation Matrix

	PEER_1	PEER_2	PEER3	PEER_4	4 PEER_5
PEER_1	1.0000				
PEER 2		1.0000			
PEER3	1.0000	.7559	1.0000		
PEER 4			1.0000	1.0000	
PEER_5		.0000	.6547	.6547	1.0000
PEER 6		.5000	.9449	.9449	.8660
PEER 7	.9449	.5000	.9449	.9449	.8660
PEER_8	.9449	.5000	.9449	.9449	.8660
PEER_9	.7857	.1890	.7857	.7857	.9820
PEER_1	0 .9449	.5000	.9449	.9449	.8660
PEER_1	1 .9820	.8660	.9820	.9820	.5000
PEER_1	2 .1890	5000	.1890	.1890	.8660
PEER_1	3 .9449	.5000	.9449	.9449	.8660
PEER_1	4 .1890	5000	.1890	.1890	.8660
PEER_1	5 .7559	1.0000	.7559	.7559	.0000
PEER_1	6 .9449	.5000	.9449	.9449	.8660
PEER_1	7 .6547	.0000	.6547	.6547	1.0000
PEER_1	99449	5000	9449	9449	8660
PEER_2	07559	-1.0000	7559	7559	.0000
PEER_2	19820	8660	9820	9820	5000
PEER_2	2 .7559	1.0000	.7559	.7559	.0000
PEER_2	3 .7559	1.0000	.7559	.7559	.0000
PEER_2	51890	.5000	1890	1890	8660
PEER_2		-1.0000	7559	7559	.0000
PEER_2		.5000	1890	1890	8660
PEER_2			9286	9286	3273
PEER_2			1429	1429	.6547
PEER_3			7559		.0000
PEER_3	13273	8660	3273	3273	.5000
	PEER_6	PEER_7	PEER_8	PEER_	9 PEER_10
PEER_6	1.0000				
PEER_7					
PEER_8			1.0000		
PEER_9		.9449	.9449	1.0000	
PEER_1		1.0000	1.0000	.9449	1.0000

PEER_11	.8660	.8660	.8660	.6547	.8660
PEER 12	.5000	.5000	.5000	.7559	.5000
PEER_13	1.0000	1.0000	1.0000	.9449	1.0000
PEER_14	.5000	.5000	.5000	.7559	.5000
_	.5000	.5000	.5000	.1890	.5000
PEER_16	1.0000	1.0000	1.0000	.9449	1.0000
PEER_17	.8660	.8660	.8660	.9820	.8660
PEER_19	-1.0000	-1.0000	-1.0000	9449	
PEER_20	5000	5000	5000	1890	5000
PEER 21	8660	8660	8660	6547	8660
PEER_22		.5000	.5000	.1890	
PEER 23	.5000	.5000	.5000	.1890	.5000
PEER_25	5000	5000	5000	7559	5000
PEER_26	5000	5000	5000	1890	5000
PEER 27		5000	5000	7559	5000
PEER_28	7559	7559	7559	5000	7559
PEER_29		.1890	.1890		
PEER_30		5000	5000		
PEER_31	.0000	.0000	.0000	.3273	.0000
_					
PE	ER_11 I	PEER_12	PEER_1	3 PEER	R_14 PEER_15
	_	PEER_12	PEER_1	3 PEER	R_14 PEER_15
PEER_11	1.0000	_	PEER_1	3 PEER	R_14 PEER_15
PEER_11 PEER_12	1.0000	1.0000		3 PEER	R_14 PEER_15
PEER_11 PEER_12 PEER_13	1.0000 .0000 .8660	1.0000 .5000	1.0000		R_14 PEER_15
PEER_11 PEER_12 PEER_13 PEER_14	1.0000 .0000 .8660 .0000	1.0000 .5000 1.0000	1.0000 .5000	1.0000	
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15	1.0000 .0000 .8660 .0000 .8660	1.0000 .5000 1.0000 5000	1.0000 .5000 .5000	1.0000 5000	1.0000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16	1.0000 .0000 .8660 .0000 .8660	1.0000 .5000 1.0000 5000	1.0000 .5000 .5000 1.0000	1.0000 5000 .5000	1.0000 .5000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17	1.0000 .0000 .8660 .0000 .8660 .8660	1.0000 .5000 1.0000 5000 .5000 .8660	1.0000 .5000 .5000 1.0000 .8660	1.0000 5000 .5000 .8660	1.0000 .5000 .0000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19	1.0000 .0000 .8660 .0000 .8660 .5000 8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000	1.0000 .5000 .5000 1.0000 .8660 -1.0000	1.0000 5000 .5000 .8660 5000	1.0000 .5000 .0000 5000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20	1.0000 .0000 .8660 .0000 .8660 .8660 .5000 8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000	1.0000 5000 .5000 .8660 5000	1.0000 .5000 .0000 5000 -1.0000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21	1.0000 .0000 .8660 .0000 .8660 .5000 8660 -1.0000	1.0000 .5000 1.0000 5000 .5000 .8660 5000 .5000	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 8660	1.0000 5000 .5000 .8660 5000 .5000	1.0000 .5000 .0000 5000 -1.0000 8660
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_21 PEER_21	1.0000 .0000 .8660 .0000 .8660 .8660 8660 -1.0000 .8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000 .0000 5000	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 8660	1.0000 5000 .5000 .8660 5000 .5000 .0000 5000	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_21 PEER_22 PEER_23	1.0000 .0000 .8660 .0000 .8660 .8660 8660 -1.0000 .8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000 .0000 5000 5000	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 .5000	1.0000 5000 .5000 .8660 5000 .5000 .0000 5000	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_21 PEER_21 PEER_22 PEER_23 PEER_25	1.0000 .0000 .8660 .0000 .8660 .5000 8660 -1.0000 .8660 .8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000 .0000 5000 5000 -1.0000	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 .5000 5000	1.0000 5000 .5000 .8660 5000 .5000 5000 5000 -1.0000	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000 1.0000 .5000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_21 PEER_22 PEER_23 PEER_23 PEER_25 PEER_26	1.0000 .0000 .8660 .0000 .8660 .8660 8660 -1.0000 .8660 .0000 8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000 .0000 5000 5000 -1.0000 .5000	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 .5000 5000 5000	1.0000 5000 .5000 .8660 5000 .5000 5000 5000 -1.0000 .5000	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000 1.0000 .5000 -1.0000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_22 PEER_23 PEER_23 PEER_25 PEER_25 PEER_26 PEER_27	1.0000 .0000 .8660 .0000 .8660 .8660 8660 -1.0000 .8660 .0000 8660	1.0000 .5000 1.0000 5000 .5000 .5000 5000 5000 5000 -1.0000 -1.0000	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 .5000 5000 5000 5000	1.0000 5000 .5000 .8660 5000 .5000 5000 -1.0000 -1.0000	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000 1.0000 .5000 -1.0000 .5000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_21 PEER_22 PEER_23 PEER_23 PEER_25 PEER_26 PEER_27 PEER_27	1.0000 .0000 .8660 .0000 .8660 .5000 8660 -1.0000 .8660 .0000 8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000 .0000 5000 -1.0000 .5000 -1.0000 .1890	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 5000 5000 5000 5000 5000	1.0000 5000 .5000 .8660 5000 .5000 5000 -1.0000 .5000 -1.0000 .1890	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000 1.0000 .5000 -1.0000 .5000
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_22 PEER_23 PEER_23 PEER_25 PEER_26 PEER_26 PEER_27 PEER_28 PEER_29	1.0000 .0000 .8660 .0000 .8660 .5000 8660 -1.0000 .8660 .0000 8660 .0000 9820 3273	1.0000 .5000 1.0000 5000 .5000 .8660 5000 5000 5000 -1.0000 .5000 -1.0000 .1890 .9449	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 .5000 5000 5000 7559 .1890	1.0000 5000 .5000 .8660 5000 .5000 5000 -1.0000 .5000 -1.0000 .1890 .9449	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000 1.0000 .5000 -1.0000 .5000 9449 7559
PEER_11 PEER_12 PEER_13 PEER_14 PEER_15 PEER_16 PEER_17 PEER_19 PEER_20 PEER_21 PEER_21 PEER_22 PEER_23 PEER_23 PEER_25 PEER_26 PEER_27 PEER_27	1.0000 .0000 .8660 .0000 .8660 .5000 8660 -1.0000 .8660 .0000 8660	1.0000 .5000 1.0000 5000 .5000 .8660 5000 .0000 5000 -1.0000 .5000 -1.0000 .1890	1.0000 .5000 .5000 1.0000 .8660 -1.0000 5000 5000 5000 5000 5000 5000	1.0000 5000 .5000 .8660 5000 .5000 5000 -1.0000 .5000 -1.0000 .1890	1.0000 .5000 .0000 5000 -1.0000 8660 1.0000 1.0000 .5000 -1.0000 .5000

PEER_16 PEER_17 PEER_19 PEER_20 PEER_21

```
1.0000
PEER_16
PEER 17
              .8660
                       1.0000
PEER_19
             -1.0000
                       -.8660
                                 1.0000
PEER_20
              -.5000
                       .0000
                                 .5000
                                         1.0000
PEER_21
              -.8660
                       -.5000
                                 .8660
                                          .8660
                                                   1.0000
PEER_22
              .5000
                       .0000
                                -.5000
                                         -1.0000
                                                   -.8660
PEER_23
              .5000
                       .0000
                                -.5000
                                         -1.0000
                                                   -.8660
PEER_25
              -.5000
                       -.8660
                                 .5000
                                         -.5000
                                                   .0000
PEER_26
              -.5000
                       .0000
                                 .5000
                                         1.0000
                                                    .8660
PEER_27
              -.5000
                       -.8660
                                 .5000
                                         -.5000
                                                   .0000
PEER_28
              -.7559
                                 .7559
                                          .9449
                       -.3273
                                                   .9820
PEER_29
              .1890
                       .6547
                                -.1890
                                          .7559
                                                   .3273
PEER_30
              -.5000
                        .0000
                                 .5000
                                         1.0000
                                                    .8660
PEER_31
              .0000
                       .5000
                                 .0000
                                          .8660
                                                   .5000
         PEER_22
                     PEER_23
                                PEER_25
                                            PEER_26
                                                        PEER_27
              1.0000
PEER_22
PEER_23
                       1.0000
              1.0000
PEER_25
              .5000
                       .5000
                                1.0000
PEER_26
             -1.0000
                       -1.0000
                                 -.5000
                                           1.0000
PEER_27
              .5000
                       .5000
                                1.0000
                                          -.5000
                                                   1.0000
PEER 28
              -.9449
                       -.9449
                                -.1890
                                          .9449
                                                   -.1890
PEER_29
              -.7559
                       -.7559
                                -.9449
                                          .7559
                                                   -.9449
PEER 30
             -1.0000
                       -1.0000
                                 -.5000
                                           1.0000
                                                    -.5000
PEER_31
              -.8660
                       -.8660
                                -.8660
                                          .8660
                                                   -.8660
         PEER_28
                     PEER_29
                                PEER_30
                                            PEER_31
PEER_28
              1.0000
PEER_29
              .5000
                       1.0000
PEER_30
              .9449
                       .7559
                                1.0000
                                         1.0000
PEER 31
              .6547
                       .9820
                                 .8660
```

Item Means Mean Minimum Maximum Range Max/Min Variance 4.0230 2.0000 5.3333 3.3333 2.6667 .7058

 $N ext{ of } Cases =$

3.0

Item Variances Mean Minimum Maximum Range Max/Min Variance
1.3218 .3333 5.3333 5.0000 16.0000 1.4324
Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .0447 -.0141 .7605 2.3576 .1040 Average of Raters* .5758 -.6724 .9893 2.3576 .1040

Degrees of freedom for F-tests are 2 and 56. Test Value = 0.

Reliability Coefficients 29 items

Alpha = .5758 Standardized item alpha = .7712

RELIABILITY ANALYSIS - SCALE (ALPHA)

* * * ACI3	has zero variance
* * * ACI6	has zero variance
* * * ACI7	has zero variance
* * * ACI10	has zero variance
* * * ACI11	has zero variance
* * * ACI13	has zero variance
* * * ACI16	has zero variance

Correlation Matrix

	ACI1	ACI2	ACI4	ACI5	ACI8
ACI1	1.0000				
ACI2	-1.0000	1.0000	1		
ACI4	1.0000	-1.0000	1.0000		
ACI5	1.0000	-1.0000	1.0000	1.0000	
ACI8	.5000	5000	.5000	.5000	1.0000
ACI9	.8660	8660	.8660	.8660	.8660
ACI12	.5000	5000	.5000	.5000	5000
ACI14	.5000	5000	.5000	.5000	5000
ACI15	-1.0000	1.0000	-1.0000	-1.000	05000
ACI17	1.0000	-1.0000	1.0000	1.0000	.5000
ACI18	-1.0000	1.0000	-1.0000	-1.000	05000
ACI19	.5000	5000	.5000	.5000	5000
ACI20	.0000	.0000	.0000	.0000	8660
ACI21	.3273	3273	.3273	.3273	6547
ACI22	.5000	5000	.5000	.5000	5000
ACI23	.5000	5000	.5000	.5000	1.0000

^{*} Assumes absence of People*Rater interaction.

ACI31
ACI9 1.0000 ACI12 .0000 1.0000 ACI14 .0000 1.0000 1.0000 ACI15866050005000 1.0000 ACI17 .8660 .5000 .5000 -1.0000 1.0000 ACI18866050005000 1.0000 -1.0000 ACI19 .0000 1.0000 1.00005000 .5000 ACI205000 .8660 .8660 .0000 .0000 ACI211890 .9820 .98203273 .3273 ACI22 .0000 1.0000 1.00005000 .5000 ACI23 .8660500050005000 .5000 ACI245000 .8660 .8660 .0000 .0000 ACI25993411471147 .91779177 ACI26 .0000 1.0000 1.00005000 .5000 ACI27944932733273 .98209820 ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000
ACI12
ACI14
ACI15866050005000 1.0000 ACI17 .8660 .5000 .5000 -1.0000 1.0000 ACI18866050005000 1.0000 -1.0000 ACI19 .0000 1.0000 1.00005000 .5000 ACI205000 .8660 .8660 .0000 .0000 ACI211890 .9820 .98203273 .3273 ACI22 .0000 1.0000 1.00005000 .5000 ACI23 .8660500050005000 .5000 ACI245000 .8660 .8660 .0000 .0000 ACI25993411471147 .91779177 ACI26 .0000 1.0000 1.00005000 .5000 ACI27944932733273 .98209820 ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000
ACI17
ACI18
ACI19
ACI205000 .8660 .8660 .0000 .0000 ACI211890 .9820 .98203273 .3273 ACI22 .0000 1.0000 1.00005000 .5000 ACI23 .8660500050005000 .5000 ACI245000 .8660 .8660 .0000 .0000 ACI25993411471147 .91779177 ACI26 .0000 1.0000 1.00005000 .5000 ACI27944932733273 .98209820 ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000
ACI211890 .9820 .98203273 .3273 ACI22 .0000 1.0000 1.00005000 .5000 ACI23 .8660500050005000 .5000 ACI245000 .8660 .8660 .0000 .0000 ACI25993411471147 .91779177 ACI26 .0000 1.0000 1.00005000 .5000 ACI27944932733273 .98209820 ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI31 ACI19 ACI20 ACI21 ACI22
ACI22
ACI23
ACI245000 .8660 .8660 .0000 .0000 ACI25993411471147 .91779177 ACI26 .0000 1.0000 1.00005000 .5000 ACI27944932733273 .98209820 ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI18 ACI19 ACI20 ACI21 ACI22
ACI25993411471147 .91779177 ACI26 .0000 1.0000 1.00005000 .5000 ACI27944932733273 .98209820 ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI31 ACI18 ACI19 ACI20 ACI21 ACI22
ACI26 .0000 1.0000 1.00005000 .5000 ACI27944932733273 .98209820 ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI31 ACI18 ACI19 ACI20 ACI21 ACI22
ACI27 9449 3273 3273 .9820 9820 ACI28 5000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .9707 6934 .6934 ACI30 .0000 1.0000 1.0000 5000 .5000 ACI31 .0000 1.0000 1.0000 5000 .5000 ACI18 ACI19 ACI20 ACI21 ACI22
ACI285000 .8660 .8660 .0000 .0000 ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI18 ACI19 ACI20 ACI21 ACI22
ACI29 .2402 .9707 .97076934 .6934 ACI30 .0000 1.0000 1.00005000 .5000 ACI31 .0000 1.0000 1.00005000 .5000 ACI18 ACI19 ACI20 ACI21 ACI22
ACI30
ACI31 .0000 1.0000 1.00005000 .5000 ACI18 ACI19 ACI20 ACI21 ACI22
ACI18 ACI19 ACI20 ACI21 ACI22
A CI10 1 0000
ACI18 1.0000
ACI195000 1.0000
ACI20 .0000 .8660 1.0000
ACI213273 .9820 .9449 1.0000
ACI225000 1.0000 .8660 .9820 1.0000
ACI2350005000866065475000
ACI24 .0000 .8660 1.0000 .9449 .8660
ACI25 .91771147 .3974 .07511147
ACI265000 1.0000 .8660 .9820 1.0000
ACI27 .98203273 .189014293273
ACI28 .0000 .8660 1.0000 .9449 .8660

ACI29	6934	.9707	.7206	.9078	.9707
ACI30	5000	1.0000	.8660	.9820	1.0000
ACI31	5000	1.0000	.8660	.9820	1.0000
	ACI23	ACI24	ACI25	ACI26	ACI27
ACI23	1.0000				
ACI24	8660	1.0000			
ACI25	8030	.3974	1.0000		
ACI26	5000	.8660	1147	1.0000	
ACI27	6547	.1890	.9762	3273	1.0000
ACI28	8660	1.0000	.3974	.8660	.1890
ACI29	2774	.7206	3500	.9707	5447
ACI30	5000	.8660	1147	1.0000	3273
ACI31	5000	.8660	1147	1.0000	3273
	ACI28	ACI29	ACI30	ACI31	
ACI28	1.0000				
ACI29	.7206	1.0000			
ACI30	.8660	.9707	1.0000		
ACI31	.8660	.9707	1.0000	1.0000	

Item Means Mean Minimum Maximum Range Max/Min Variance 4.5833 2.6667 5.6667 3.0000 2.1250 .6304

Item Variances Mean Minimum Maximum Range Max/Min Variance 1.9167 .3333 7.0000 6.6667 21.0000 5.1232

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .1805 .0233 .9115 6.2872 .0039 Average of Raters* .8409 .3636 .9960 6.2872 .0039

Degrees of freedom for F-tests are 2 and 46. Test Value = 0.

3.0

N of Cases =

^{*} Assumes absence of People*Rater interaction.

Reliability Coefficients 24 items

Alpha = .8409 Standardized item alpha = .8210

RELIABILITY ANALYSIS - SCALE (ALPHA)

* * * PRACT15 has zero variance * * * PRACT18 has zero variance

Correlation Matrix

	PRACT1	PRACT2	PRACT3	PRAC	CT4 PRA	ACT5
PRACT1	1.000	00				
PRACT2						
PRACT3	.500	0 1.0000	1.0000			
PRACT4	-1.000	5000	5000	1.0000		
PRACT5	1.000	.5000	.5000	-1.0000	1.0000	
PRACT6	-1.000	5000	5000	1.0000	-1.0000	
PRACT7	189	0 .7559	.7559	.1890	1890	
PRACT8	.866	0 .8660	.8660	8660	.8660	
PRACT9	500	0 .5000	.5000	.5000	5000	
PRACT1	0500	.5000	.5000	.5000	5000	
PRACT1	1 1.000	.5000	.5000	-1.0000	1.0000	
PRACT1	2500	.5000	.5000	.5000	5000	
PRACT1	3 .500	00 1.0000	1.0000	5000	.5000	
PRACT1	4 1.000		.5000	-1.0000	1.0000	
PRACT1		5000	5000	5000	.5000	
PRACT1			.5000	-1.0000	1.0000	
PRACT1	9866	.0000	.0000	.8660	8660	
PRACT2	0500	.5000	.5000	.5000	5000	
PRACT2	1500	.5000	.5000	.5000	5000	
PRACT2			.5000	.5000	5000	
PRACT2	3 -1.00			1.0000	-1.0000	
PRACT2	4 .500	00 1.0000	1.0000	5000	.5000	
PRACT2	5866	8660	8660	.8660	8660	
PRACT2			.2774	.6934	6934	
PRACT2				.5000	5000	
PRACT2			.1890	.7559	7559	
PRACT2			.5000	.5000	5000	
PRACT3			.5000	.5000	5000	
PRACT3	1 .000	.8660	.8660	.0000	.0000	

PRACT6 PRACT7 PRACT8 PRACT9 PRACT10

PRACT6	1.0000					
PRACT7	.1890	1.0000				
PRACT8	8660	.3273	1.0000			
PRACT9	.5000	.9449	.0000	1.0000		
PRACT10	.5000	.9449	.0000	1.0000	1.0000	
PRACT11	-1.0000	1890	.8660	5000	5000	
PRACT12	.5000	.9449	.0000	1.0000	1.0000	
PRACT13	5000	.7559	.8660	.5000	.5000	
PRACT14	-1.0000	1890	.8660	5000	5000	
PRACT16	5000	9449	.0000	-1.0000	-1.0000	
PRACT17	-1.0000	1890	.8660	5000	5000	
PRACT19	.8660	.6547	5000	.8660	.8660	
PRACT20	.5000	.9449	.0000	1.0000	1.0000	
PRACT21	.5000	.9449	.0000	1.0000	1.0000	
PRACT22	.5000	.9449	.0000	1.0000	1.0000	
PRACT23	1.0000	.1890	8660	.5000	.5000	
PRACT24	5000	.7559	.8660	.5000	.5000	
PRACT25	.8660	3273	-1.0000	.0000	.0000	
PRACT26	.6934	.8386	2402	.9707	.9707	
PRACT27	.5000	7559	8660	5000	5000	
PRACT28	.7559	.7857	3273	.9449	.9449	
PRACT29	.5000	.9449	.0000	1.0000	1.0000	
PRACT30	.5000	.9449	.0000	1.0000	1.0000	
PRACT31	.0000	.9820	.5000	.8660	.8660	
PR	ACT11 I	PRACT12	PRACT	Γ13 PR <i>A</i>	ACT14	PRACT16
DD A CTT 1	1 0000					
PRACT11 PRACT12	1.0000 5000	1.0000				
PRACT12 PRACT13	.5000	.5000	1.0000			
PRACT13	1.0000	5000	.5000	1.0000		
PRACT14 PRACT16	.5000	-1.0000	5000	.5000	1.0000	
PRACT10	1.0000	5000	.5000	1.0000	.5000	
PRACT19	8660	3000 .8660	.0000	8660	8660	
PRACT20	5000	1.0000	.5000	5000	-1.0000	
PRACT21	5000	1.0000	.5000	5000	-1.0000	
PRACT21	5000	1.0000	.5000	5000	-1.0000	
PRACT23	-1.0000	.5000	5000	-1.0000	5000	
PRACT24	.5000	.5000	1.0000	.5000	5000	,
PRACT25	8660	.0000	8660	.3000 8660	.0000	
PRACT26	6934	.9707	.2774	6934	9707	
PRACT27	5000	5000	-1.0000	5000	.5000	
PRACT28	7559	.9449	.1890	7559	9449	
1 KAC 1 20	1333	.7447	.1090	1333	- . ノ オオ ノ	

PRACT2	5000	1.0000	.5000	5000	-1.0000)
PRACT3	5000	1.0000	.5000	5000	-1.0000)
PRACT3	.0000	.8660	.8660	.0000	8660	
	PRACT17	PRACT19	PRACT	Γ20 PRA	ACT21	PRACT22
DD A C/T/1	7 1 0000	`				
PRACT1						
PRACT1			1 0000			
PRACT2			1.0000	1 0000		
PRACT2			1.0000	1.0000	1 000	2
PRACT2			1.0000	1.0000	1.000	J
PRACT2			.5000	.5000	.5000	
PRACT2			.5000	.5000	.5000	
PRACT2			.0000	.0000	.0000	
PRACT2			.9707	.9707	.9707	
PRACT2	5000	.0000	5000	5000	5000	
PRACT2			.9449	.9449	.9449	
PRACT2	5000	.8660	1.0000	1.0000	1.000	O
PRACT3	5000	.8660	1.0000	1.0000	1.000	O
PRACT3	.0000	.5000	.8660	.8660	.8660	
	PRACT23	PRACT24	PRACT	Γ25 PR <i>A</i>	ACT26	PRACT27
PRACT2	1.0000)				
PRACT2	5000	1.0000				
PRACT2	.8660	8660	1.0000			
PRACT2	.6934	.2774	.2402	1.0000		
PRACT2	.5000	-1.0000	.8660	2774	1.0000)
PRACT2	.7559	.1890	.3273	.9959	1890	
PRACT2	.5000	.5000	.0000	.9707	5000	
PRACT3			.0000	.9707	5000	
PRACT3		.8660	5000	.7206	8660	
	PRACT28	PRACT29	PRACT	Γ30 PR <i>A</i>	ACT31	
PRACT2	1.0000)				
PRACT2	.9449	1.0000				
DD A OTTO		1.0000	1.0000			
PRACT3	0 .9449	1.0000				
PRACT3	.6547	.8660	.8660			
PRACT3		.8660	.8660		E (AL	PHA)
PRACT3 RELI	.6547	.8660 'ANALY	.8660		E (AL	PHA)

 Item Means
 Mean
 Minimum
 Maximum
 Range
 Max/Min
 Variance

 4.0920
 2.0000
 5.3333
 3.3333
 2.6667
 .6738

Item Variances Mean Minimum Maximum Range Max/Min Variance
1.4253 .3333 5.3333 5.0000 16.0000 2.3404
Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .1668 .0244 .9022 6.8040 .0023 Average of Raters* .8530 .4205 .9963 6.8040 .0023

Degrees of freedom for F-tests are 2 and 56. Test Value = 0.

Reliability Coefficients 29 items

Alpha = .8530 Standardized item alpha = .8514

RELIABILITY ANALYSIS - SCALE (ALPHA)

* * * GAME9	has zero variance
* * * GAME10	has zero variance
* * * GAME11	has zero variance
* * * GAME12	has zero variance
* * * GAME18	has zero variance

Correlation Matrix

	GAME1	GAME2	GAME3	GAM	E4 GAME5
GAME1 GAME2 GAME3 GAME4 GAME5 GAME6 GAME7 GAME8	1.0000 1.0000 .5000 5000 5000 5000 .0000	1.0000 .5000 5000 .5000 5000 .0000 .8660	1.0000 -1.0000 1.0000 -1.0000 .8660 .8660	1.0000 -1.0000 1.0000 8660 8660	1.0000 -1.0000 .8660 .8660
GAME13 GAME14		.8660 1.0000	.8660 .5000	8660 5000	.8660 .5000

^{*} Assumes absence of People*Rater interaction.

GAME10 GAME10 GAME10 GAME20	5.5000 7.5000 95000 15000 15000 35000 4.1.000 55000 61.000 75000 85000 95000 95000 95000 95000 95000 95000 95000 95000 95000 95000 95000 95000 95000 95000 95000	0 .5000 0 .5000	5000 5000 1.0000 .5000 .5000 .5000 -1.0000 5000 -1.0000 .1890 .5000 .5000	.5000 .5000 -1.0000 5000 5000 5000 1.0000 5000 1.0000 1890 5000 5000 5000	5000 5000 1.0000 .5000 .5000 -1.000 -1.000 -1.000 -1.000 .5000 .5000 .5000	00 0 00 0
GI IIVIL25	GAME6	GAME7	GAME8	GAM		GAME14
	UAMEO	GAME/	GAME	UAM	E13 (JAME14
GAME6 GAME7 GAME8 GAME13 GAME13 GAME13 GAME19 GAME20 GAME23 GAME23 GAME23 GAME24 GAME24 GAME25 GAME25 GAME25 GAME25 GAME26 GAME26 GAME26	45000 5 .5000 6 .5000 7 -1.000 95000 15000 25000 3 1.000 45000 5 1.000 6 .5000 7 1.000	1.0000 .5000 .5000 .5000 .0000 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660 .8660	1.0000 1.0000 .8660 .0000 .0000 .0000 .0000 .0000 8660 8660 8660 8660	1.0000 .8660 .0000 .0000 .8660 .0000 .0000 .0000 8660 8660 8660 8660	1.0000 .5000 .5000 .5000 5000 5000 5000 5000 5000 5000 7559	1
GAME29 GAME30 GAME30	5000 5000	.8660 .8660	.0000 .0000 .6547	.0000 .0000 .6547	7339 5000 5000 .1890	

GAME15 GAME16 GAME17 GAME19 GAME20

GAME15 1.0000

GAME16	1.0000	1.0000				
GAME17	5000	5000	1.0000			
GAME19	-1.0000	-1.0000	.5000	1.0000		
GAME20	-1.0000	-1.0000	.5000	1.0000	1.0000	
GAME21	-1.0000	-1.0000	.5000	1.0000	1.0000	
GAME22	-1.0000	-1.0000	.5000	1.0000	1.0000	
GAME23	.5000	.5000	-1.0000	5000	5000	
GAME24	.5000	.5000	.5000	5000	5000	
GAME25	.5000	.5000	-1.0000	5000	5000	
GAME26	5000		5000	.5000	.5000	
GAME27	.5000		-1.0000	5000	5000	
GAME28	9449	9449	.1890	.9449	.9449	
GAME29	-1.0000	-1.0000	.5000	1.0000	1.0000	
GAME30	-1.0000	-1.0000	.5000	1.0000	1.0000	
GAME31	7559	7559	.9449	.7559	.7559	
	GAMI	E21 GAN	/IE22 C	GAME23	GAME24	GAME25
GAME21	1.0000)				
GAME22	1.0000	1.0000				
GAME23	5000	5000	1.0000			
GAME24	5000	5000	5000	1.0000		
GAME25	5000	5000	1.0000	5000	1.0000	
GAME26	.5000	.5000	.5000	-1.0000	.5000	
GAME27	5000	5000	1.0000	5000	1.0000	
GAME28	.9449	.9449	1890	7559	1890	
GAME29	1.0000	1.0000	5000	5000	5000	
GAME30	1.0000	1.0000	5000	5000	5000	
GAME31	.7559	.7559	9449	.1890	9449	
	GAME26	GAME27	GAME	28 GAN	ME29 GA	AME30
GAME26	1.0000)				
GAME27	.5000	1.0000				
GAME28	.7559	1890	1.0000			
GAME29	.5000	5000	.9449	1.0000		
GAME30	.5000	5000	.9449	1.0000	1.0000	
GAME31	1890	9449	.5000	.7559	.7559	
	GAME31					

GAME31

GAME31 1.0000

N of Cases = 3.0

Item Means Mean Minimum Maximum Range Max/Min Variance 4.2051 2.6667 5.3333 2.6667 2.0000 .6674

Item Variances Mean Minimum Maximum Range Max/Min Variance 1.1667 .3333 5.3333 5.0000 16.0000 2.0556

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .0000 -.0296 .5968 1.0000 .3751 Average of Raters* .0000 -2.975 .9747 1.0000 .3751

Degrees of freedom for F-tests are 2 and 50. Test Value = 0.

Reliability Coefficients 26 items

Alpha = .0000 Standardized item alpha = .1440

RELIABILITY ANALYSIS - SCALE (ALPHA)

* * * RPEER10 has zero variance * * * RPEER13 has zero variance

* * * RPEER24 has zero variance

* * * RPEER30 has zero variance

Correlation Matrix

RPEER1 RPEER 2 RPEER3 RPEER4 RPEER5

RPEER1	1.0000				
RPEER_2	1.0000	1.0000			
RPEER3	1.0000	1.0000	1.0000		
RPEER4	.7559	.7559	.7559	1.0000	
RPEER5	.7559	.7559	.7559	1.0000	1.0000
RPEER6	.7559	.7559	.7559	1.0000	1.0000
RPEER7	1.0000	1.0000	1.0000	.7559	.7559
RPEER8	1.0000	1.0000	1.0000	.7559	.7559

^{*} Assumes absence of People*Rater interaction.

RPEERS	.755	.7559	.7559	1.0000	1.0000	
RPEER1				.7559	.7559	
RPEER1	.50	.5000		.9449	.9449	
RPEER1	50	5000	5000	.1890	.1890	
RPEER1				.7559		
RPEER1	.189			.7857	.7857	
RPEER1	1.00	000 1.000	00 1.0000	.7559	.7559	
RPEER1	1.00	000 1.000		.7559		
RPEER1	.94	49 .9449	.9449	.9286	.9286	
RPEER2	20 1.00	000 1.000	00 1.0000	.7559	.7559	
RPEER2	21 1.00	000 1.000	00 1.0000	.7559	.7559	
RPEER2	22 1.00	000 1.000	00 1.0000	.7559		
RPEER2	23 1.00	000 1.000		.7559		
RPEER2	2527	742774	42774	.4193	.4193	
RPEER2	26 1.00	000 1.000	00 1.0000	.7559	.7559	
RPEER2	.000	.0000	.0000	.6547	.6547	
RPEER2	.500	00 .5000	.5000	.9449	.9449	
RPEER3			.7559	1.0000	1.0000	
RPEER3				.7559		
	RPEER6	RPEER7	RPEER8	RPEE	R9 RPE	ER11
RPEER	5 1.00	00				
RPEER6)			
	.755	59 1.0000				
RPEER7	7 .755 3 .755	59 1.0000 59 1.0000	1.0000	1.0000		
RPEER?	7 .755 3 .755 9 1.000	59 1.0000 59 1.0000 00 .7559	1.0000	1.0000 .7559	1.0000	
RPEER? RPEERS	7 .755 3 .755 9 1.000 11 .755	59 1.0000 59 1.0000 00 .7559 59 1.000	1.0000 7559 0 1.0000		1.0000 .5000	
RPEER? RPEER! RPEER!	7 .755 3 .755 9 1.000 11 .755 12 .944	59 1.0000 59 1.0000 00 .7559 59 1.0000 49 .5000	1.0000 7.7559 1.0000 5.000	.7559		
RPEER? RPEER! RPEER! RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189	59 1.0000 59 1.0000 00 .7559 59 1.0000 49 .5000 905000	1.0000 7559 1.0000 5000 1.5000	.7559 .9449	.5000	
RPEER? RPEER! RPEER! RPEER! RPEER!	7 .755 8 .755 9 1.000 11 .75: 12 .94 14 .189 15 .75:	59 1.0000 59 1.0000 00 .7559 59 1.0000 49 .5000 905000 59 1.0000	1.0000 7.7559 1.0000 5.000 1.5000 1.0000	.7559 .9449 .1890	.5000 5000	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER!	7 .755 3 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785	59 1.0000 59 1.0000 00 .7559 59 1.0000 49 .5000 90 5000 59 1.0000 57 .1890	1.0000 7559 1.0000 5000 5000 1.0000 1.0000	.7559 .9449 .1890 .7559	.5000 5000 1.0000	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755	59 1.0000 59 1.0000 00 .7559 59 1.000 49 .5000 90 5000 59 1.000 57 .1890 59 1.000	1.0000 7559 1.0000 5000 1.5000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857	.5000 5000 1.0000 .1890	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER! RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755	59 1.0000 59 1.0000 00 .7559 59 1.0000 49 .5000 90 5000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000	1.0000 7.7559 1.0000 5000 5000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559	.5000 5000 1.0000 .1890 1.0000	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .186 15 .755 16 .785 17 .755 18 .755 19 .925	59 1.0000 59 1.0000 00 .7559 59 1.0000 49 .5000 59 1.0000 57 .1890 59 1.0000 59 1.0000 86 .9449	1.0000 7.7559 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559	.5000 5000 1.0000 .1890 1.0000 1.0000	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755 19 .925 20 .755	59 1.0000 59 1.0000 00 .7559 59 1.000 49 .5000 90 5000 59 1.000 59 1.000 59 1.000 86 .9449 59 1.000	1.0000 7559 1.0000 5000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559	.5000 5000 1.0000 .1890 1.0000 1.0000	
RPEER? RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .185 15 .755 16 .785 17 .755 18 .755 19 .925 20 .755 21 .755	59 1.0000 59 1.0000 69 1.0000 60 .7559 59 1.000 59 1.000 57 1.890 59 1.000 59 1.000 86 .9449 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000	1.0000 7.7559 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559 .9286 .7559	.5000 5000 1.0000 .1890 1.0000 1.0000 .9449 1.0000	
RPEER? RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755 19 .925 20 .755 21 .755 22 .755	59 1.0000 59 1.0000 69 1.0000 60 .7559 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000	1.0000 7.7559 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559 .9286 .7559	.5000 5000 1.0000 .1890 1.0000 1.0000 .9449 1.0000 1.0000	
RPEER? RPEER!	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755 19 .925 20 .755 21 .755 22 .755 22 .755	59 1.0000 59 1.0000 69 1.0000 60 .7559 59 1.000 59 1.000 57 .1890 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000	1.0000 7.7559 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559 .9286 .7559 .7559	.5000 5000 1.0000 .1890 1.0000 1.0000 .9449 1.0000 1.0000	
RPEER? RPEER! RPEER2 RPEER2 RPEER2 RPEER2	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755 19 .925 20 .755 21 .755 22 .755 23 .755 25 .419	59 1.0000 59 1.0000 69 1.0000 60 .7559 59 1.000 93 2774	1.0000 7.7559 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559 .7559 .7559 .7559	.5000 5000 1.0000 .1890 1.0000 1.0000 .9449 1.0000 1.0000 1.0000	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER? RPEER? RPEER? RPEER? RPEER? RPEER?	7 .755 8 .755 9 1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755 19 .925 20 .755 21 .755 22 .755 23 .755 26 .755	59 1.0000 59 1.0000 69 1.0000 60 .7559 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 93 2774 59 1.0000	1.0000 7.7559 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559 .7559 .7559 .7559 .7559 .4193	.5000 5000 1.0000 .1890 1.0000 1.0000 .9449 1.0000 1.0000 1.0000 2774	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER? RPEER? RPEER? RPEER? RPEER? RPEER?	7 .755 8 .755 9 .1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755 19 .925 20 .755 21 .755 22 .755 23 .755 24 .419 26 .755 27 .656	59 1.0000 59 1.0000 60 .7559 59 1.000 49 .5000 59 1.000 57 .1890 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 59 1.000 47 .0000	1.0000 7559 1.0000 5000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559 .7559 .7559 .7559 .7559 .4193 .7559	.5000 5000 1.0000 .1890 1.0000 1.0000 .9449 1.0000 1.0000 1.0000 2774 1.0000	
RPEER? RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER! RPEER? RPEER? RPEER? RPEER? RPEER? RPEER? RPEER? RPEER? RPEER?	7 .755 8 .755 8 .755 9 .1.000 11 .755 12 .944 14 .189 15 .755 16 .785 17 .755 18 .755 18 .755 20 .755 21 .755 22 .755 23 .755 24 .755 26 .755 27 .654 28 .944	59 1.0000 59 1.0000 00 .7559 59 1.0000 49 .5000 90 5000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 59 1.0000 47 .0000 49 .5000	1.0000 7559 1.0000	.7559 .9449 .1890 .7559 .7857 .7559 .7559 .7559 .7559 .7559 .7559 .4193 .7559 .6547	.5000 5000 1.0000 .1890 1.0000 1.0000 .9449 1.0000 1.0000 1.0000 2774 1.0000 .0000	

.7559

1.0000

1.0000

.7559

1.0000

RPEER31

	RPEER12	RPEER14	RPEER	15 RPE	ER16	RPEER17
RPEER1	2 1.000	0				
RPEER1						
RPEER1			1.0000			
RPEER1			.1890	1.0000		
RPEER1			1.0000	.1890	1.0000)
RPEER1	.5000	5000	1.0000	.1890	1.0000)
RPEER1	9 .7559	1890	.9449	.5000	.9449	
RPEER2	.5000	5000	1.0000	.1890	1.0000)
RPEER2	.5000	5000	1.0000	.1890	1.0000)
RPEER2	.5000	5000	1.0000	.1890	1.0000)
RPEER2	.5000	5000	1.0000	.1890	1.0000)
RPEER2	.6934	.9707	2774	.8910	2774	
RPEER2			1.0000	.1890	1.0000)
RPEER2			.0000	.9820	.0000	
RPEER2			.5000	.9449	.5000	
RPEER3			.7559	.7857	.7559	
RPEER3	.5000	5000	1.0000	.1890	1.0000)
	RPEER18	RPEER19	RPEER	20 RPE	ER21	RPEER22
RPEER1	8 1.000	0				
RPEER1	9 .9449	1.0000				
RPEER2	20 1.000	0 .9449	1.0000			
RPEER2	1.000	0 .9449	1.0000	1.0000		
RPEER2	22 1.000	0 .9449	1.0000	1.0000	1.000	00
RPEER2	1.000	0 .9449	1.0000	1.0000	1.000	00
RPEER2	252774	4 .0524	2774	2774	2774	
RPEER2	1.000	0 .9449	1.0000	1.0000	1.000	00
RPEER2			.0000	.0000	.0000	
RPEER2			.5000	.5000	.5000	
RPEER3			.7559	.7559	.7559	
RPEER3	1.000	0 .9449	1.0000	1.0000	1.000	00
	RPEER23	RPEER25	RPEER	26 RPE	ER27	RPEER28
RPEER2	1.000	0				
RPEER2						
RPEER2			1.0000			
RPEER2			.0000	1.0000		
RPEER2			.5000	.8660	1.0000	
RPEER3			.7559	.6547	.9449	

RPEER31 1.0000 -.2774 1.0000 .0000 .5000

RPEER39 RPEER31

RPEER39 1.0000

RPEER31 .7559 1.0000

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 3.0

Item Means Mean Minimum Maximum Range Max/Min Variance 2.8395 2.0000 3.6667 1.6667 1.8333 .1912

Item Variances Mean Minimum Maximum Range Max/Min Variance 2.4074 .3333 4.3333 4.0000 13.0000 .9430

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .6339 .2904 .9859 47.7554 .0000 Average of Raters* .9791 .9170 .9995 47.7554 .0000

Degrees of freedom for F-tests are 2 and 52. Test Value = 0.

* Assumes absence of People*Rater interaction.

Reliability Coefficients 27 items

Alpha = .9791 Standardized item alpha = .9811

RELIABILITY ANALYSIS - SCALE (ALPHA)

* * * RACI10 has zero variance

* * * RACI23 has zero variance

* * * RACI27 has zero variance

* * * RACI28 has zero variance

Correlation Matrix

	RACI1	RACI2	RACI3	RACI4	RACI5
RACI1	1.0000				
RACI2	1.0000	1.0000			
RACI3	1.0000	1.0000	1.0000		
RACI4	1.0000	1.0000	1.0000	1.0000	
RACI5	1.0000	1.0000	1.0000	1.0000	1.0000
RACI6	1.0000	1.0000	1.0000	1.0000	1.0000
RACI7	1.0000	1.0000	1.0000	1.0000	1.0000
RACI8	1.0000	1.0000	1.0000	1.0000	1.0000
RACI9	-1.0000		-1.0000	-1.0000	-1.0000
RACI11	1.0000		1.0000	1.0000	1.0000
RACI12	1.0000	1.0000	1.0000	1.0000	1.0000
RACI13	1.0000	1.0000	1.0000	1.0000	1.0000
RACI14	1.0000	1.0000	1.0000	1.0000	1.0000
RACI15	1.0000	1.0000	1.0000	1.0000	1.0000
RACI16	1.0000	1.0000	1.0000	1.0000	1.0000
RACI17	1.0000	1.0000	1.0000	1.0000	1.0000
RACI18	1.0000	1.0000	1.0000	1.0000	1.0000
RACI19	1.0000	1.0000	1.0000	1.0000	1.0000
RACI20	1.0000	1.0000	1.0000	1.0000	1.0000
RACI21	1.0000	1.0000	1.0000	1.0000	1.0000
RACI22	1.0000	1.0000	1.0000	1.0000	1.0000
RACI24	1.0000	1.0000	1.0000	1.0000	1.0000
RACI25	1.0000	1.0000	1.0000	1.0000	1.0000
RACI26	1.0000	1.0000	1.0000	1.0000	1.0000
RACI29	1.0000	1.0000	1.0000	1.0000	1.0000
RACI30	1.0000	1.0000	1.0000	1.0000	1.0000
RACI31	1.0000	1.0000	1.0000	1.0000	1.0000
	RACI6	RACI7	RACI8	RACI9	RACI11
RACI6	1.0000				
RACI7	1.0000	1.0000			
RACI8	1.0000	1.0000	1.0000		
RACI9	-1.0000	-1.0000	-1.0000	1.0000	
RACI11	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI12	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI13	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI14	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI15	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI16	1.0000	1.0000	1.0000	-1.0000	1.0000

RACI17	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI18	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI19	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI20	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI21	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI22	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI24	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI25	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI26	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI29	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI30	1.0000	1.0000	1.0000	-1.0000	1.0000
RACI31	1.0000	1.0000	1.0000	-1.0000	1.0000
	RACI12	RACI13	RACI14	RACI15	RACI16
RACI12	1.0000				
RACI13	1.0000	1.0000			
RACI14	1.0000	1.0000	1.0000		
RACI15	1.0000	1.0000	1.0000	1.0000	
RACI16	1.0000	1.0000	1.0000	1.0000	1.0000
RACI17	1.0000	1.0000	1.0000	1.0000	1.0000
RACI18	1.0000	1.0000	1.0000	1.0000	1.0000
RACI19	1.0000	1.0000	1.0000	1.0000	1.0000
RACI20	1.0000	1.0000	1.0000	1.0000	1.0000
RACI21	1.0000	1.0000	1.0000	1.0000	1.0000
RACI22	1.0000	1.0000	1.0000	1.0000	1.0000
RACI24	1.0000	1.0000	1.0000	1.0000	1.0000
RACI25	1.0000	1.0000	1.0000	1.0000	1.0000
RACI26	1.0000	1.0000	1.0000	1.0000	1.0000
RACI29	1.0000	1.0000	1.0000	1.0000	1.0000
RACI30	1.0000	1.0000	1.0000	1.0000	1.0000
RACI31	1.0000	1.0000	1.0000	1.0000	1.0000
	RACI17	RACI18	RACI19	RACI20	RACI21
RACI17	1.0000				
RACI18	1.0000	1.0000			
RACI19	1.0000	1.0000	1.0000		
RACI20	1.0000	1.0000	1.0000	1.0000	
RACI21	1.0000		1.0000	1.0000	1.0000
RACI22	1.0000	1.0000	1.0000	1.0000	1.0000
RACI24	1.0000		1.0000	1.0000	1.0000
RACI25	1.0000		1.0000	1.0000	1.0000
RACI26	1.0000	1.0000	1.0000	1.0000	1.0000

RACI29	1.0000	1.0000	1.0000	1.0000	1.0000
RACI30	1.0000	1.0000	1.0000	1.0000	1.0000
RACI31	1.0000	1.0000	1.0000	1.0000	1.0000
	RACI22	RACI24	RACI25	RACI26	RACI29
RACI22	1.0000				
RACI24	1.0000	1.0000			
RACI25	1.0000	1.0000	1.0000		
RACI26	1.0000	1.0000	1.0000	1.0000	
RACI29	1.0000	1.0000	1.0000	1.0000	1.0000
RACI30	1.0000	1.0000	1.0000	1.0000	1.0000

1.0000

RACI30 RACI31

1.0000

RACI30 1.0000

RACI31

RACI31 1.0000 1.0000

N of Cases = 2.0

Item Means Mean Minimum Maximum Range Max/Min Variance 1.8148 1.5000 3.5000 2.0000 2.3333 .2144

1.0000

1.0000

1.0000

Item Variances Mean Minimum Maximum Range Max/Min Variance 1.0000 .5000 2.0000 1.5000 4.0000 .5192

Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .7849 .3806 .9997 99.5232 .0000 Average of Raters* .9900 .9431 1.0000 99.5232 .0000

Degrees of freedom for F-tests are 1 and 26. Test Value = 0.

* Assumes absence of People*Rater interaction.

Reliability Coefficients 27 items

Alpha = .9900 Standardized item alpha = .9936

RELIABILITY ANALYSIS - SCALE (ALPHA)

* * * RPRACT10 has zero variance * * * RPRACT11 has zero variance * * * RPRACT13 has zero variance * * * RPRACT17 has zero variance * * * RPRACT24 has zero variance

Correlation Matrix

RPRACT1 RPRACT2 RPRACT3 RPRACT4 RPRACT5

RPRACT1	1.0000					
RPRACT2	1.0000	1.0000				
RPRACT3	1.0000	1.0000	1.0000			
RPRACT4	1.0000	1.0000	1.0000	1.0000		
RPRACT5	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT6	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT7	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT8	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT9	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT12	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT14	-1.0000	-1.0000	-1.0000	-1.0000	-1.0000	
RPRACT15	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT16	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT18	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT19	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT20	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT21	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT22	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT23	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT25	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT26	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT27	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT28	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT29	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT30	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT31	1.0000	1.0000	1.0000	1.0000	1.0000	

RPRACT6 RPRACT7 RPRACT8 RPRACT9 RPRACT12

RPRACT6 1.0000 RPRACT7 1.0000 1.0000 RPRACT8 1.0000 1.0000 1.0000

RPRACT9	1.0000	1.0000	1.0000	1.0000		
RPRACT12	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT14	-1.0000	-1.0000	-1.0000	-1.0000	-1.0000	
RPRACT15	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT16	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT18	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT19	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT20	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT21	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT22	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT23	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT25	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT26	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT27	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT28	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT29	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT30	1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT31	1.0000	1.0000	1.0000	1.0000	1.0000	
KI KI KI CI 31	1.0000	1.0000	1.0000	1.0000	1.0000	
מממ	ACT14 R	RPRACT15	RPRAC	TT16 DDD	RACT18	RPRACT19
KPK	ACII4 K	RPRACTIS	KPKAC	IIO KPK	CAC118	RPRACT19
RPRACT14	1.0000					
RPRACT15	-1.0000	1.0000				
RPRACT16	-1.0000	1.0000	1.0000			
RPRACT18	-1.0000	1.0000	1.0000	1.0000		
RPRACT19	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT20	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT21	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT21	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT23	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT25	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT26	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT27	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT28	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT29	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT30	-1.0000	1.0000	1.0000	1.0000	1.0000	
RPRACT31	-1.0000	1.0000	1.0000	1.0000	1.0000	
222	A CITIA O	DD 4 CTA1	DDD 4 6	TO DE		DDD 4 CE25
RPR	ACT20 R	RPRACT21	RPRAC	122 KPR	KAC123	RPRACT25
	1 0000					
RPRACT20	1.0000	1 0000				
RPRACT20 RPRACT21 RPRACT22	1.0000 1.0000 1.0000	1.0000 1.0000	1.0000			

RPRACT23

1.0000

1.0000

1.0000

1.0000

RPRACT25	1.0000	1.0000	1.0000	1.0000	1.0000
RPRACT26	1.0000	1.0000	1.0000	1.0000	1.0000
RPRACT27	1.0000	1.0000	1.0000	1.0000	1.0000
RPRACT28	1.0000	1.0000	1.0000	1.0000	1.0000
RPRACT29	1.0000	1.0000	1.0000	1.0000	1.0000
RPRACT30	1.0000	1.0000	1.0000	1.0000	1.0000
RPRACT31	1.0000	1.0000	1.0000	1.0000	1.0000

RPRACT26 RPRACT27 RPRACT28 RPRACT29 RPRACT30

RPRACT26	1.0000				
RPRACT27	1.0000	1.0000			
RPRACT28	1.0000	1.0000	1.0000		
RPRACT29	1.0000	1.0000	1.0000	1.0000	
RPRACT30	1.0000	1.0000	1.0000	1.0000	1.0000
RPRACT31	1.0000	1.0000	1.0000	1.0000	1.0000

RPRACT31

RPRACT31 1.0000

N of Cases = 2.0

Item Means Mean Minimum Maximum Range Max/Min Variance 2.8654 1.5000 3.5000 2.0000 2.3333 .1512

Item Variances Mean Minimum Maximum Range Max/Min Variance
1.4808 .5000 2.0000 1.5000 4.0000 .5296
Intraclass Correlation Coefficients
Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .8332 .4586 .9998 130.9190 .0000 Average of Raters* .9924 .9566 1.0000 130.9190 .0000

Degrees of freedom for F-tests are 1 and 25. Test Value = 0.

* Assumes absence of People*Rater interaction. Reliability Coefficients 26 items

Alpha = .9924 Standardized item alpha = .9931

RELIABILITY ANALYSIS - SCALE (ALPHA)

* * * RGAME1 has zero variance * * * RGAME2 has zero variance * * * RGAME3 has zero variance * * * RGAME4 has zero variance * * * RGAME7 has zero variance * * * RGAME8 has zero variance * * * RGAME10 has zero variance * * * RGAME11 has zero variance * * * RGAME21 has zero variance * * * RGAME23 has zero variance * * * RGAME26 has zero variance * * * RGAME27 has zero variance * * * RGAME28 has zero variance

Correlation Matrix

	RGAME5	RGAME6	RGAME9	RGA	ME12	RGAME13
RGAME	5 1.000	00				
RGAME	6 -1.000	00 1.0000				
RGAME	9 1.000	00 -1.0000	1.0000			
RGAME	-1.00	000 1.0000	-1.0000	1.0000		
RGAME	-1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	-1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	-1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	-1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	1.00	00 -1.0000	1.0000	-1.0000	-1.000	00
RGAME	1.00	00 -1.0000	1.0000	-1.0000	-1.000	00
RGAME	1.00	00 -1.0000	1.0000	-1.0000	-1.000	00
RGAME	20 1.00	00 -1.0000	1.0000	-1.0000	-1.000	00
RGAME	1.00	00 -1.0000	1.0000	-1.0000	-1.000	00
RGAME	24 -1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	25 -1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	29 -1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	30 -1.00	000 1.0000	-1.0000	1.0000	1.000	00
RGAME	31 1.00	00 -1.0000	1.0000	-1.0000	-1.000	00

RGAME14 RGAME15 RGAME16 RGAME17 RGAME18

RGAME14 1.0000

RGAME15 1.0000 1.0000

RGAME16	1.0000	1.0000	1.0000		
RGAME17	-1.0000	-1.0000	-1.0000	1.0000	
RGAME18	-1.0000	-1.0000	-1.0000	1.0000	1.0000
RGAME19	-1.0000	-1.0000	-1.0000	1.0000	1.0000
RGAME20	-1.0000	-1.0000	-1.0000	1.0000	1.0000
RGAME22	-1.0000	-1.0000	-1.0000	1.0000	1.0000
RGAME24	1.0000	1.0000	1.0000	-1.0000	-1.0000
RGAME25	1.0000	1.0000	1.0000	-1.0000	-1.0000
RGAME29	1.0000	1.0000	1.0000	-1.0000	-1.0000
RGAME30	1.0000	1.0000	1.0000	-1.0000	-1.0000
RGAME31	-1.0000	-1.0000	-1.0000	1.0000	1.0000

RGAME19 RGAME20 RGAME22 RGAME24 RGAME25

RGAME19	1.0000				
RGAME20	1.0000	1.0000			
RGAME22	1.0000	1.0000	1.0000		
RGAME24	-1.0000	-1.0000	-1.0000	1.0000	
RGAME25	-1.0000	-1.0000	-1.0000	1.0000	1.0000
RGAME29	-1.0000	-1.0000	-1.0000	1.0000	1.0000
RGAME30	-1.0000	-1.0000	-1.0000	1.0000	1.0000
RGAME31	1.0000	1.0000	1.0000	-1.0000	-1.0000

RGAME29 RGAME30 RGAME31

RGAME29 1.0000

RGAME30 1.0000 1.0000

RGAME31 -1.0000 -1.0000 1.0000

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 2.0

Item Means Mean Minimum Maximum Range Max/Min Variance 2.6111 2.0000 3.5000 1.5000 1.7500 .4575

Item Variances Mean Minimum Maximum Range Max/Min Variance 1.1667 .5000 2.0000 1.5000 4.0000 .5882 Intraclass Correlation Coefficients

Two-Way Mixed Effects Model (Consistency Definition)

ICC 95% Confidence Interval

Measure Value Lower Bound Upper Bound F-Value Sig.

Single Rater .0308 -.0429 .9885 1.5723 .2268 Average of Raters* .3640 -2.843 .9994 1.5723 .2268

Degrees of freedom for F-tests are 1 and 17. Test Value = 0.

* Assumes absence of People*Rater interaction.

Reliability Coefficients 18 items

Alpha = .3640 Standardized item alpha = -3.7059

APPENDIX H

INSTITUTIONAL REVIEW BOARD APPROVAL

THE UNIVERSITY OF NORTH CAROLINA

11/8/2004

NOV 1 1 2004 IRB File NUM:

CREENSBORO

045108

TITLE: Entry level athletic trainers perceptions about the role of clinical experiences on development in the

PI: Stevens, Susan	DEPT: ESS
CO_PIS:	
FACULTY SPONSOR: Perrin, David	Park Ton
Action Taken:	Disposition of Application:
eXempt from Full Review	Approved
Expedited Review	Disapproved
Full IRB Review	
MODIFICATIONS AND COMMENTS:	
	IRB Chair/Désignee
	APPROVAL DATE*: 11/10/04 EXPIRATION DATE*: 11/10/05
·	EXPIRATION DATE*: 1/10/05
	·

^{*}Approval of Research is for up to **ONE** year only. If your research extends beyond one year, the project must be reviewed before the expiration date prior to continuation.

APPENDIX I

COVER LETTER FOR FINAL DATA COLLECTION

Dear Entry Level Athletic Trainer,

You have been invited to participate in a research study entitled, Entry-level athletic trainers' perceptions about the role of clinical experience in the development of the affective domain. This survey is will be considered as part of my doctoral dissertation. The purpose of the study is to determine the importance of various common clinical experiences on the development of competence in the affective domain of the educational competencies which are required in all CAAHEP accredited athletic training education programs. These data are important as the Education Council is currently examining and revising the education competencies.

You will be asked to complete the web based survey by following the enclosed URL.

You must be currently employed as an athletic trainer in one of the recognized practice areas to participate in this study.

The survey consists of demographic questions and others relating to the importance of structured clinical education and unstructured field experience on the development of selected affective domain competencies. The survey should take you no longer than approximately 25 minutes to complete.

To participate you need access to the internet. You will access the link provided below, answer all questions honestly and submit your responses. You are being asked for your email address to be removed from the reminder list only. Your address will be removed from your results by the primary researcher before any data is analyzed. These addresses will be kept in a separate and secure location. All of your responses will be confidential and you will not be identified by name as a subject in this study. Filling out the survey and submitting your responses serves as your informed consent for participation. Your participation is entirely voluntary and you may withdraw at any time by discontinuing the survey without submitting the data. This survey and consent letter have been approved by the University of North Carolina at Greensboro Institutional Review Board, which insures that research involving human subjects follows federal regulations. If you have any questions about your rights as a participant in this project please call Mr. Eric Allen at (336) 256-1482. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

I intend to submit the results of this study for publication in an aggregate form only. The raw data will be kept in a locked office and destroyed three years after publication of the results. If you would like a copy of the project results please email me with your request

for information. Also if you have any questions regarding this project feel free to contact me either by email or at 336-278-5883.

Thank you for your time and consideration,

Sue Stevens

<u>Sstevens2@elon.edu</u> 336-278-5883

Click this link to be taken to the survey

http://www.elon.edu/irweb/Athletics/athletics_ss.html

APPENDIX J

SURVEY INSTRUMENT FOR PILOT TWO AND FINAL DATA COLLECTION

Entry level athletic trainers' perceptions about the role of clinical experience in the development of the affective domain

Directions

- 1. As you complete the survey please keep in mind that this survey is measuring how important different clinical experiences were in your learning of specific learning objectives during your entry-level education program. Even though each of these activities were defined by the education council, clearly some are more important than others in your learning of specific educational competencies. Each bold statement below is taken directly from the NATA Educational Competencies and Clinical Proficiencies.*
- 2. Reflect back to your athletic training education as you read each bold statement and consider how important each of the activities listed below was in your learning of that bold statement.
- a. Practicing clinical proficiencies with peers in an AT lab/ clinical course
- b. Individual instruction/ assessment of clinical proficiencies with an approved clinical instructor
- c. Practice coverage under the supervision of a clinical instructor
- d. Game coverage under the supervision of a clinical instructor
- 3. Rate each activity according to that activity's importance in your mastery of each bold statement. (1=least important, 6= extremely important). For example in the first table, how important was practicing clinical proficiencies with your classmates in ensuring your learning of how to accept the moral, professional and legal responsibility to conduct safe programs to minimize injury...
- 4. After rating each activity's importance in your learning also rank order each activity in the area below each table. Remember that your ranking of each activity is based on your learning of the specific bold statement in the table above the ranking box.

Next >



Accepts the moral, professional, and legal responsibilities to conduct safe programs to minimize injury and illness risk factors for individuals involved in physical activity

	1=Not important	2	3	4	5	6=Extremely important				
Practicing clinical proficiencies with peers in an AT lab/ clinical course	ncies with peers									
ndividual instruction/ assessment of clinical proficiencies with C C C C C C C C C C C C C C C C C C C										
Practice coverage Inder supervision of a Instructor Ins										
Game coverage under supervision of a Clinical C C C C C										
Rank each activity according to its importance in your learning of the above bold statement. 1=most important, 4=least important) Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor										

Understands the need for cooperation among administrators, athletic personnel, certified athletic trainers, parents/guardians, other health care professionals, and athletes and others engaged in physical activity in the implementation of effective injury and illness prevention programs

	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	С	C	C

Individual instruction/ assessment of clinical proficiencies with C C C C C C C C C C C C C C C C C C C										
Practice coverage under supervision of a Clinical C C C C C Instructor										
Game coverage under supervision of a Clinical Instructor										
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)										
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor										
Game coverage under supervision of a Clinical Instructor										
Recognizes that physician consultation is a moral and ethical necessity in the										

Recognizes that physician consultation is a moral and ethical necessity in the diagnosis and treatment of pathologic conditions.

	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	С	C	C	C	С	C
Practice coverage under supervision of a Clinical Instructor	С	C	С	C	C	С
Game coverage under supervision of a Clinical Instructor	6	0	С	С	С	C

Rank each activity according (1=most important, 4=least in		e in you	r learnin	g of the	above b	old statement.	
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor							
Accepts the moral and ethical responsibility of maintaining current knowledge of the pathologic conditions of athletes and others involved in physical activity							
	1=Not important	2	3	4	5	6=Extremely important	
Practicing clinical proficiencies with peers in an AT lab/ clinical course							
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor							
Practice coverage under supervision of a Clinical Instructor	supervision of a Clinical						
Game coverage under supervision of a Clinical Instructor	supervision of a Clinical						
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)							
Practicing clinical pro Individual instruction/ Practice coverage un	assessment of o	clinical p	roficiend	cies with		ed Clinical Instructor	
Game coverage unde	•						

Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the use of therapeutic agents to treat, rehabilitate, and recondition athletes and others involved in physical activity

(1=most important, 4=least important) Practicing clinical proficiencies with peers Individual instruction/ assessment of clinic	3 C	4 C	5 C	6=Extremely important								
proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor Rank each activity according to its importance in (1=most important, 4=least important) Practicing clinical proficiencies with peers Individual instruction/ assessment of clinic	C	C	C	C								
assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor Rank each activity according to its importance in (1=most important, 4=least important) Practicing clinical proficiencies with peers Individual instruction/ assessment of clinic	С	С	C	С								
under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor Rank each activity according to its importance in (1=most important, 4=least important) Practicing clinical proficiencies with peers Individual instruction/ assessment of clinic												
under supervision of a Clinical Instructor Rank each activity according to its importance in (1=most important, 4=least important) Practicing clinical proficiencies with peers Individual instruction/ assessment of clinic	C	C		p-1								
(1=most important, 4=least important) Practicing clinical proficiencies with peers Individual instruction/ assessment of clinic				under supervision of a C C C								
Individual instruction/ assessment of clinic	Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)											
Game coverage under supervision of a Cli	Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor											
Respects the role of attending physicians and other medical and allied health personnel in the use of therapeutic agents to treat, rehabilitate, and recondition athletes and others involved in physical activity												

	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C			С	С	C

ndividual instruction/ assessment of clinical broficiencies with Approved Clinical Instructor											
Practice coverage under supervision of a Clinical C C C C Instructor											
Game coverage under supervision of a Clinical C C C C Instructor											
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)											
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor											
Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor											

Advocates the accepted medical protocol regarding the confidentiality of medical information relative to therapeutic modality treatments

	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	С	С	C	С	С
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	С	C	C	C	C
Practice coverage under supervision of a Clinical Instructor	C	С	C	C	C	С
Game coverage under supervision of a Clinical Instructor	C	С	C	С	C	С

Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)

Practicing clinical proficiencies with peers in an AT lab/ clinical course									
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor									
Practice coverage under supervision of a Clinical Instructor									
Game coverage under supervision of a Clinical Instructor									
Appreciates the importance of a systematic assessment process in the management of injuries and illness									
	1=Not important	2	3	4	5	6=Extremely important			
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C			
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C			
Practice coverage under supervision of a Clinical Instructor	E	C		C	C	C			
Game coverage under supervision of a Clinical Instructor	С	C		C	C	C			
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)									
Practicing clinical proficiencies with peers in an AT lab/ clinical course									
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor									
Practice coverage under supervision of a Clinical Instructor									
Game coverage under supervision of a Clinical Instructor									

Accepts the role of the certified athletic trainer as a primary provider of assessment to the injuries and illnesses of athletes and others involved in physical activity

	1=Not important	2	3	4	5	6=Extremely important			
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	0	C			C			
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C			
Practice coverage under supervision of a Clinical Instructor	C	C	C	C		C			
Game coverage under supervision of a Clinical Instructor	C	C	C	С	C	C			
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)									
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor									
Appreciates the legal, moral, and ethical parameters that define the scope of first aid and emergency care, and values the proper role of the certified athletic trainer in providing this care									
	1=Not important	2	3	4	5	6=Extremely important			
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C			
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	С	С	C	C	C	C			

Practice coverage under supervision of a Clinical Instructor	C	C	C			C				
Game coverage under supervision of a Clinical Instructor	C	C	C		C C					
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)										
	Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor									
Practice coverage under supervision of a Clinical Instructor										
Game coverage under supervision of a Clinical Instructor										

Appreciates the role and function of various medical/paramedical specialties, and values their respective areas of expertise in the definitive treatment of acute injuries and illnesses

	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	C
Game coverage under supervision of a Clinical Instructor	C		C	C	C	C

Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)

Practicing clinical proficiencies with peers in an AT lab/ clinical course									
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor									
Practice coverage under supervision of a Clinical Instructor									
Game coverage under supervision of a Clinical Instructor									
Appreciates the systematic approach to acute injury or illness of the secondary survey components of obtaining a history, inspection/observation, palpation, and using special tests									
	1=Not important	2	3	4	5	6=Extremely important			
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C			
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor									
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	C			
Game coverage under supervision of a Clinical Instructor	E	C	C	C	C	C			
Rank each activity according to (1=most important, 4=least important)		in your l	earning	of the abo	ve bold sta	atement.			
Practicing clinical proficiencies with peers in an AT lab/ clinical course									
Individual instruction/ as	sessment of clir	nical pro	ficiencie	s with App	oroved Clir	nical Instructor			
Practice coverage under	supervision of	a Clinica	al Instrud	ctor					
Game coverage under s	upervision of a	Clinical	Instructo	or					

Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the treatment, rehabilitation, or reconditioning of athletes and others involved in physical activity

	1=Not important	2	3		4	5	6=Extremel important	
Practicing clinical proficiencies with peers in an AT lab/ clinical course	E	0	C		C		C	
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	С	C	C		C		C	
Practice coverage under supervision of a Clinical Instructor	C	C	C		С		C	
Game coverage under supervision of a Clinical Instructor	C	C			С		C	
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor Accepts the moral and ethical obligation to provide rehabilitation or reconditioning to								
	1=Not important	2	3	4		5	6=Extremely important	
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	E	3	C	
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C		G	E	3	C	

Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	C			
Game coverage under supervision of a Clinical Instructor	С	C	C	C	C	С			
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)									
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor									
Respects the proper role of attending physicians and other medical and paramedical personnel in the treatment and rehabilitation or reconditioning of athletes and others involved in physical activity									
	1=Not important	2	3	4	5	6=Extremely important			
Practicing clinical proficiencies with peers in an	С		C						

Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)

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AT lab/ clinical course

Individual instruction/ assessment of clinical

proficiencies with Approved Clinical Instructor

Practice coverage under

supervision of a Clinical

Game coverage under

supervision of a Clinical

Instructor

Instructor

Practicing clinical proficient Individual instruction/ as Practice coverage under Game coverage under s	sessment of clir	nical pro	ficiencie al Instruc	s with App		ical Instructor		
Supports the moral and ethic diseases of athletics and phy		athletic	trainers	in issues	s dealing v	with		
	1=Not important	2	3	4	5	6=Extremely important		
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C		C	C		
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	С	С	C		
Practice coverage under supervision of a Clinical Instructor	C	C	C	С	C	C		
Game coverage under supervision of a Clinical Instructor	C	C	C	С	C	C		
	Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)							
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor								
Game coverage under s	upervision of a	Clinical	Instructo	r				

Recognizes the moral and ethical responsibility of taking situational control in the containment of common contagious viral and infectious diseases

	1=Not important	2	3	4	5	6=Extremely important		
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	С		
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C		
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	С		
Game coverage under supervision of a Clinical Instructor	C	C	C	C	C	С		
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)								
Practicing clinical proficies Individual instruction/ ass Practice coverage under Game coverage under su	sessment of clin	ical profic a Clinical	ciencies w	vith Appro		ical Instructor		
Accepts the roles of medical and allied health personnel in the referral, management, and treatment of athletes and others involved in physical activity suffering from general medical conditions								
	1=Not important	2	3	4	5	6=Extremely important		
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	С		
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C		

Practice coverage under supervision of a Clinical Instructor	C	С	C	C	C	0			
Game coverage under supervision of a Clinical Instructor	C	С	C	C	C	C			
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)									
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor									
Appreciates the role of proper nutrition in the health care of athletes and others involved in physical activity									
	1=Not important	2	3	4	5	6=Extremely important			
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C			
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	С	С	С	С	С			
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	C			
Game coverage under supervision of a Clinical Instructor	me coverage under pervision of a Clinical								
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)									
Practicing clinical proficie	encies with peer	s in an A	Γ lab/ cli	nical cour	se				

Individual instruction/ asse	essment of clin	ical profi	ciencies	with Appr	oved Cli	nical Instructor
Practice coverage under s	•					
Appreciates the long term effect menorrhea on the skeletal hea	ts of disorder	red eatii	ng, bone		loss, an	d secondary
	1=Not important	2	3	4	5	6=Extremel y important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C		C	C	C	C
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	G	С	С	С	C
Practice coverage under supervision of a Clinical Instructor	C		C	C	C	C
Game coverage under supervision of a Clinical Instructor	C		C	C	C	C
Rank each activity according to its 1=most important, 4=least impor		n your le	arning of	the above	e bold st	atement.
Practicing clinical proficier Individual instruction/ assertion Practice coverage under suppose the co	essment of clin	ical profi a Clinical	ciencies Instruct	with Appr		nical Instructor
Recognizes the need for and in					sorders	
	1=Not important	2	3	4	5	6=Extremely important

Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C			
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C		C	C	С	C			
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	С	C			
Game coverage under supervision of a Clinical Instructor	C	C	C	C	C	C			
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important) Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor									
Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in providing health care information, intervention, and referral									
	1=Not important	2	3	4	5	6=Extremely important			

	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C		6	C	C	C
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C
Practice coverage under supervision of a Clinical Instructor	C		C	C	C	C

Game coverage under supervision of a Clinical Instructor		C		C	C	C			
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)									
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor									
Practice coverage under Game coverage under su				r					
Accepts the responsibility to provide health care information, intervention, and referral consistent with the certified athletic trainer's professional training									
	1=Not important	2	3	4	5	6=Extremely important			
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C		C	C	С			
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	С			
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	С			
Game coverage under supervision of a Clinical Instructor	C	C	С	C	C	C			
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)									
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor									
Practice coverage under	supervision o	f a Clinical	Instructo	r					

Game coverage under su	pervision of a	Clinical	Instructor	•		
Recognizes the certified athle ctive, athletic personnel, hea						
	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	С	С	G	C	C	C
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	С
Game coverage under supervision of a Clinical Instructor	C	C	C	C	C	C
Practicing clinical proficient Individual instruction/ assumed Practice coverage under Game coverage under su	encies with persessment of class	ers in an inical pro	AT lab/ cl	linical co with App	urse	
appreciates the roles and fun- vell as their respective areas thletes and others involved in	of expertise i	n the ac				

Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C		C	
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	С	C	C	
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	C	
Game coverage under supervision of a Clinical Instructor	C	C	C	C		C	
Rank each activity according to (1=most important, 4=least important)		n your l	earning	of the abo	ove bold s	statement.	
Practicing clinical proficient Individual instruction/ assume Practice coverage under Summer	sessment of clir	nical pro	ficiencie al Instruc	s with Ap		linical Instructor	
Appreciates the importance of an emergency action plan that is tailored for a specific venue or setting							
	1=Not important	2	3	4	5	6=Extremely important	
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	С	C	
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	E	C	C	C	C	C	
Practice coverage under supervision of a Clinical Instructor	С	C	C	C	C	C	

Game coverage under supervision of a Clinical Instructor		C	С		C	C
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)						
Practicing clinical proficie Individual instruction/ ass Practice coverage under Game coverage under si	sessment of clin	iical pro	ficiencie al Instruc	s with A		Clinical Instructor
Accepts the professional, ethi the certified athletic trainer in delivery systems						
					6=Extremely important	
Practicing clinical proficiencies with peers in an AT lab/ clinical course			С	С		
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	С	С
Game coverage under supervision of a Clinical Instructor	С	C	C	C	С	C
Rank each activity according to (1=most important, 4=least important)		n your l	earning	of the at	oove bold	statement.
Practicing clinical proficie	•					Clinical Instructor

Practice coverage under	supervision of	a Clinica	al Instructo	or			
Game coverage under su	pervision of a	Clinical	Instructor				
Appreciates the need for and registration, licensure, certification.		ıd bene	fits of ath	letic train	ing regu	ulatory acts	
	1=Not a mportant 2 3 4 5 6=Extr						
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C		C	C	C	С	
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	С	C	C	
Practice coverage under supervision of a Clinical Instructor							
Game coverage under supervision of a Clinical Instructor							
Rank each activity according to 1 (1 = most important, 4 = least important)		n your l	earning of	the above	bold sta	atement.	
Practicing clinical proficie	encies with peer	s in an	AT lab/ cli	nical cours	6e		
Individual instruction/ ass	sessment of clin	ical pro	ficiencies	with Appro	ved Clin	nical Instructor	
Practice coverage under	supervision of	a Clinica	al Instructo	or			
Game coverage under su	pervision of a	Clinical	Instructor				

Accepts the professional, historical, ethical, and organizational structures that define the proper roles and responsibilities of the certified athletic trainer in providing health care to athletes and others involved in physical activity

	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	C	C	C
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	C	C	C	C	C
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	C	C
Game coverage under supervision of a Clinical Instructor	C	C	C	C	C	C
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)						
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor						
	1=Not important	2	3	4	5	6=Extremely important
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C		C	C		C
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	C	С	C	C		C
Practice coverage under supervision of a Clinical Instructor	E		C	C	0	C

Game coverage under supervision of a Clinical Instructor	С			C	G 0	C	
Rank each activity according to its importance in your learning of the above bold statement. (1=most important, 4=least important)							
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor Practice coverage under supervision of a Clinical Instructor Game coverage under supervision of a Clinical Instructor							
Defends the responsibili	ty to interpret	and pr	omote a	thletic tra			
	1=Not important	2	3	4	5	6=Extremely important	
Practicing clinical proficiencies with peers in an AT lab/ clinical course	C	C	C	E	С	C	
Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor	С	C	С	C	D	C	
Practice coverage under supervision of a Clinical Instructor	C	C	C	C	0	C	
Game coverage under supervision of a Clinical Instructor	C	C	C	C	C	C	
Rank each activity accordi (1=most important, 4=leas		tance in	your lea	rning of th	e above b	old statement.	
Practicing clinical proficiencies with peers in an AT lab/ clinical course Individual instruction/ assessment of clinical proficiencies with Approved Clinical Instructor							

Practice coverage under supervision of a Clinical Instructor					
Game coverage under supervision of a Clinical Instructor					
1. Using the following definitions, how much time did you spend in clinical education and field experience?					
Clinical Education is when you are learning, practicing, or being assessed on a clinical proficiency by an Approved Clinical Instructor.**					
Field Experience is unstructured learning or practice of athletic training skills in a real world setting under the supervision of a clinical instructor.** The field experience is the time that you are actively working with a sports team covering practices and competitions or pre and post practice treatments. This is an exposure to the daily activities of certified athletic trainers and other medical providers					
100% clinical education					
75% clinical education 25% field experience					
50% clinical education 50% field experience					
25% clinical education 75% field experience					
100% field experience					
2. Considering your complete education program, how would you rate your clinical instructors' supervisory competence?3. When did you begin your clinical education/ field experience?(count from when you entered school not the athletic training program)					
First year (freshman)					
Second year (sophomore)					
Third year (junior)					
Fourth year (Senior)					
Thank you for your time and effort in completing this survey. References					

*National Athletic Trainers' Association Education Council. Educational Competencies and Clinical Proficiencies. 2001.

 ** National Athletic Trainers' Association Education Council Clinical Education Definitions. http://www.cewl.com/. Accessed February 22,2003.



