



**University of South Carolina**

**Doctoral Dissertation Abstracts**

**1989 - Present**

DEPARTMENT OF  
PHYSICAL EDUCATION

South Carolina

# Table of Contents

**Note:** Dissertation authors are listed in alphabetical order in this table, and abstracts appear chronologically in the document.

Ayers, Suzan. (2001). <i>“Development of instruments to assess the subdisciplinary concept knowledge of physical education students”</i> Advisor: Dr. Judith Rink.....	19
Barton, Regina. (1999). <i>“Differences in process characteristics between high- and low-skilled youth baseball players,”</i> Advisor: Dr. Karen French.....	16
Bott, Timothy. (2006). <i>“A descriptive study of physically active adults in three team sports,”</i> Advisor: Dr. Judith Rink.....	30
Brown, Sharon. (1994). <i>“The effects of limited and repeated demonstrations on the development of fielding and throwing in children,”</i> Advisor, Dr. Judith Rink.....	7
Castelli, Darla. (2002). <i>“A comparison of high and low performing secondary physical education programs in South Carolina,”</i> Advisor: Dr. Judith Rink.....	21
Coleman, Margaret. (1997). <i>“A comparison of selected supervisory skills of cooperating teachers and Clinical Model Teachers,”</i> Advisor: Dr. Murray Mitchell.....	10
DaMatta, Gylton. (2004). <i>“The influence of deliberate practice and social support systems on the development of expert and intermediate women volleyball players in Brazil,”</i> Advisor: Dr. Karen French.....	25
Dodge, Thomas. (2006). <i>“Student retention in athletic training education programs,”</i> Advisor: Dr. Murray Mitchell.....	31
Ellis, Sally Dee. (1997). <i>“Student problem behavior and teacher responses in physical education,”</i> Advisor: Dr. Judith Rink.....	11
Fleming, David. (1998). <i>“The impact of state-mandated change and a systemic inservice training project on high school physical education curriculum,”</i> Advisor: Dr. Judith Rink.....	13
Fox, Bryan D. (2007). <i>“A new direction in athletic imagery interventions: The relationship between imagery direction, anxiety, and motor performance,”</i> Advisor: Dr. Eva V. Monsma.....	34
Gabbei, Ritchie. (2001). <i>“The behaviors and perceptions of teachers and students in middle school physical education as mediated by gender,”</i> Advisor: Dr. Murray Mitchell.....	20

## Table of contents (continued)

Gardin, Frederick. (2009). <i>“Knowledge representation and self-regulatory experiences of certified expert and novice athletic trainers in college and university settings,”</i> Co-Advisors: Dr. Jim Mensch & Dr. Karen French. ....	43
Gardiner, Alison. (2006). <i>“Attractors to and facilitators for athletic training and the high school setting,”</i> Advisor: Dr. Murray Mitchell. ....	32
Goodman, Ashley. (2007). <i>“Retention and attrition factors of female certified athletic trainers in the national collegiate athletic association division-I football bowl subdivision setting,”</i> Advisor: Dr. Jim Mensch. ....	36
Gorecki, Jennifer. (2000). <i>“Knowledge representation of volleyball players,”</i> Advisor: Dr. Karen French. ....	18
Heidorn, Brent. (2007). <i>“The effectiveness of an outside of school physical activity requirement for high school students,”</i> Advisor: Dr. Judith Rink. ....	37
Hussey, Kevin. (1993). <i>“The effects of massed and distributed practice on the development of overhand throwing in children,”</i> Advisor, Dr. Judith Rink. ....	5
Jones, Laura. (2005). <i>“The effects of contextual interference on the acquisition and retention of three volleyball skills,”</i> Advisor: Dr. Karen French. ....	27
Kirby, Kym. (2005). <i>“High school principal's perceptions and support for a state physical education assessment program,”</i> Advisor: Dr. Judith Rink. ....	28
Krist, Kyrstin. (2006). <i>“Socialization of black and white high school football players in the southeastern United States,”</i> Advisor: Dr. Karen French. ....	33
Kwak, Eun Chang. (1993). <i>“The initial effects of various task presentation conditions on students' performance of the lacrosse throw.”</i> Advisor, Dr. Kathy Graham. ....	6
Lynn, Susan. (1989). <i>“The relation of content knowledge to instructional performance in physical education,”</i> Advisor: Dr. Judith Rink. ....	1
Ma, Man Sze, (2007). <i>“A cross-cultural study: The effects of goal orientations and perceived motivational climates in college physical activity classes,”</i> Advisor: Dr. Eva V. Monsma. ....	35
Mays, Amelia. (1989). <i>“Case studies of physical education teachers from a research-based preparation program,”</i> Advisor: Dr. Neal Earls. ....	2

## Table of contents (continued)

Nevett, Michael. (1996). <i>“Knowledge content, sport-specific strategies and other self-talk accessed by shortstops of different ages during defensive game performance,”</i> Advisor: Dr. Karen French. ....	9
Pebworth, Katherine. (2006). <i>“High school physical education curriculum in the state of South Carolina,”</i> Advisor: Dr. Judith Rink. ....	29
Phillips, Amber (2007). <i>“Learning to teach: Changes in teaching skills and decision making processes related to the content development of preservice teachers across two methods courses and field experiences,”</i> Advisor: Dr. Judith Rink. ....	39
Shearin, Patrice. (2008). <i>“A feminist investigation of perceived confidence and competence of sixth grade girls as they move from a gender integrated to a gender-segregated physical education class,”</i> Advisor: Dr. Lynda Nilges-Charles.....	41
Sperry, Kevin. (1997). <i>“The effects of differing sources of information on the immediate responses of second grade students to a soccer receiving and passing task,”</i> Advisor: Dr. Karen French. ....	12
Stanne, Kathryn. (1999). <i>“The effect of a varied and choice curriculum on the participation, perceptions and attitudes of females in physical education,”</i> Advisor, Dr. Judith Rink.....	17
Stewart, Susan. (2002). <i>“Instructional variables and high school students’ knowledge and conceptions of health related fitness,”</i> Advisor: Dr. Judith Rink. ....	22
Strainer, James A. (Skip). (2009). <i>“Teacher education faculty perceptions and support of a state assessment program,”</i> Advisor: Dr. Murray Mitchell.....	42
Sweeting, Terry. (1992). <i>“The effects of direct instruction and environmental design on learning the standing broad jump for five and seven year-olds,”</i> Advisor: Dr. Judith Rink.....	3
Taylor, John Kevin. (1994). <i>“Developing observational abilities in preservice physical education teachers,”</i> Advisor: Dr. Judith Rink.....	8
Thompson, Lula. (2002). <i>“Racial and regional physical activity patterns of high school girls enrolled in required physical education in South Carolina,”</i> Advisor: Dr. Murray Mitchell.....	23
Tjeerdsma, Bonnie. (1993). <i>“An exploration of the causal relationships among achievement motivation variables in physical education,”</i> Advisor: Dr. Judith Rink. ....	4

## Table of contents (continued)

Vall, Emily. (2007). <i>“Relationships between teacher expectations of student ability and best practice teaching,”</i> Advisor: Dr. Judith Rink. ....	38
Wang, Jianyu. (2004). <i>“Developmental trends for badminton game play across skill levels: An exploratory study,”</i> Advisor: Dr. Judith Rink. ....	26
Welch, Mindy. (2008). <i>“A Phenomenological study of flow in postsecondary students participating in two racquet sports,”</i> Advisor: Dr. Lynda Nilges-Charles. ....	40
Williams, Cynthia. (1998). <i>“The relationship between teachers' race and student race and gender and teacher-student interactions,”</i> Advisor: Dr. Judith Rink. ....	14
Williams, Lori. (2002). <i>“Teacher competency using observational scoring rubrics,”</i> Advisor: Dr. Judith Rink. ....	24
Wirszyla, John Christopher. (1998). <i>“Case studies of state-mandated curriculum change in three high school physical education programs,”</i> Advisor: Dr. Judith Rink. ....	15

Lynn, Susan. (1989). "*The relation of content knowledge to instructional performance in physical education,*" Advisor: Dr. Judith Rink.

Research on teaching and teacher education has largely avoided the content issue when assessing teaching skills. Content knowledge and content pedagogical knowledge are in fact important components of the knowledge base in teaching (Shulman, 1986a). The purpose of this study was to investigate the effects of content knowledge and content pedagogical knowledge on the use of general pedagogical skills for the beginning teacher. Subjects of the study were 16 physical education preservice teachers in their junior year. Subjects taught a total six lessons, two lessons in three different content areas. A variety of instruments were used to assess content knowledge, pedagogical content knowledge and general pedagogical skills.

The results of the study seem to suggest that pedagogical content knowledge and knowledge of the content itself does impact the use of general pedagogical skills of the beginning teacher. Most general pedagogical skills were significantly effected by the content taught. The dance lessons encouraged a different set of teaching behaviors characterized by command teaching which caused increased instruction time, increased use of extension and repeating tasks, a lower rate of feedback and the use of walk through demonstrations and summary cues, particularly during activity time. The manipulative skills were characterized by the use of a direct instruction approach with independent practice which caused an increase in activity time, an increased use of application tasks and the use of full demonstrations and summary cues before independent practice. The preservice teachers appropriately selected these profiles of general pedagogical skills. A lower level of activity time, clarity and accuracy of task presentation, specific feedback, refining tasks, qualitative information, full demonstration and summary cues and structuring and reinforcing behavior would seem to indicate that content knowledge itself also played an important role in the effectiveness of the teacher. The use of activity time, the clarity and accuracy of task presentation, the use of refining tasks and the use of summary cues were lower in the dance lessons which should not have been effected by the nature of the content itself.

Mays, Amelia. (1989). "*Case studies of physical education teachers from a research-based preparation program.*" Advisor: Dr. Neal Earls.

A case study approach was utilized in the investigation of the beliefs and teaching practices of selected physical education teachers who were recent graduates of the professional preparation program of the University of South Carolina. These teachers' beliefs and practices were examined in relation to the professional preparation program and the viewpoint of the physical education teacher educators at the University.

Participants studied were six physical education teachers who were in their second to fourth year of teaching. On-site observations, videotaping, psychometric inventories, questionnaires and two audiotaped interviews were used to obtain data. The primary research tool was an in-depth semi-structured interview guide. A videotaped lesson was analyzed using a modification of the Qualitative Measures of Teaching Performance Scale and a system to determine the percentage of time devoted to instruction, management, and student activity. The psychometric inventories yielded data on the teachers' sense of efficacy and pupil control ideology.

A synopsis of the six individual case reports was presented. Findings were synthesized and interpreted by the investigator.

The following conclusions were drawn: (1) The teacher educators had expected that all teachers would be professionally committed and effective teachers. The teacher educators indicated that all teachers demonstrated competence in teaching skills during their preservice preparation. (2) The teachers' professional beliefs were clearly established during their preservice work and the current professional beliefs of the participants were mostly consistent, although not identical in range and degree of emphasis, with those of their teacher educators. Factors in the teaching environment have influenced many of the teachers to make alterations in professional beliefs. (3) The current teaching practices of the teachers are similar to the practices advocated by the teacher preparation program. Most teachers have made minimal changes in teaching practices because of alterations in their beliefs and priorities. (4) The teachers indicated that they felt that their preparation was exceptionally good.

Sweeting, Terry. (1992). "*The effects of direct instruction and environmental design on learning the standing broad jump for five and seven year-olds,*" Advisor: Dr. Judith Rink.

How to organize and present movement experiences for children a manner that facilitates the acquisition of motor skills is a major issue for physical education. The literature relating to the role of the teacher in organizing and presenting movement experiences is conflicting. Specifically, information processing theory supports direct instruction (i.e. breaking content into smaller components and presenting the material hierarchically, from simple to more complex progression). In contrast, the dynamical systems theory eludes to the role of the teacher as one of structuring or establishing tasks/conditions within the environment that elicit the desired response. However, little research has been conducted to investigate the effects of the two conditions on learning motor skills in an ecologically valid environment. Most studies in this area have investigated immediate performance effects only and have used only product measures (i.e. final results/outcome). The purpose of this study, therefore, was to compare the effects of direct instruction versus environmental design on a commonly taught fundamental skill, the standing broad jump, for five and seven year-olds.

Subjects included 56, five year-olds and 60, seven year-olds from an elementary school in the Columbia, S.C. area. The children were randomly assigned to one of three groups: an environmental design group, a direct instruction group, and a control group. All groups were pretested on both the flat mat and an environmental mat condition (videotaped). The environmental group practiced the standing broad jump at centers/stations in which certain environmental conditions were manipulated (i.e. jumping over low hurdles). The direct instruction group practiced the standing broad jump in a specified sequence as presented and structured by the teacher. Practice trials and teacher effects were controlled. A posttest and a retention test were given to determine immediate and long term learning effects (videotaped). A 2 (age) x 2 (condition) x 3 (group) x 3 (time--pre, post, retention) univariate analysis of variance with repeated measures on the last two factors was used to analyze both product and process data. Results revealed that both instructional strategies contributed positively toward increasing the distance jumped. However, each instructional strategy had a different effect on the development of process characteristics of the standing broad jump. The environmental mat testing condition had an initial positive effect on performance but lost its advantage over the flat mat with practice.

Tjeerdsma, Bonnie. (1993). "*An exploration of the causal relationships among achievement motivation variables in physical education*," Advisor: Dr. Judith Rink.

The purpose of this study was to investigate the ability of a model based on achievement motivation theory to explain the motivation/performance process in a natural physical education setting. The subjects were 49 sixth grade children participating in a 14-lesson volleyball unit in an actual middle school. Subjects completed four questionnaires which assessed their goal orientations and intrinsic motivation in physical education as well as their motor skill and volleyball perceived competence. Lessons were videotaped and coded to determine each student's consistent engagement (persistence/effort) and performance (success) rate during the unit. Results showed that the proposed model did not do an acceptable job of describing the motivation/performance process in this physical education setting. However, several significant relationships among the variables in the model were identified. Volleyball performance was positively related to consistent engagement rate and motor skill perceived competence. Motor skill perceived competence was positively related to volleyball perceived competence, while perceived competence overall (motor skill and volleyball) was positively related to intrinsic motivation. The only significant relationship found between the goal orientations and the remaining variables was the positive association between task orientation and the challenge dimension of intrinsic motivation. The effect of the context, including the content, characteristics of physical education settings in general, the climate produced by the teacher (types of tasks, management, and feedback), and the role of student perceptions of success are discussed.

Hussey, Kevin. (1993). "*The effects of massed and distributed practice on the development of overhand throwing in children,*" Advisor, Dr. Judith Rink.

The purpose of this study was to investigate the effect of massed and distributed practice on the development of overhand throwing in children. First grade students (N = 71) were assigned to one of two treatment groups (massed and distributed). An additional group of first graders (N = 37) was used as a control group to check for a testing or maturation effect. Subjects in the massed group (N = 36) received 20 practice throws twice a week during a three week period for a total of 120 practice throws. Subjects in the distributed group (N = 35) received 10 practice throws twice a week during a 6 week period for a total of 120 practice throws. Subjects in the control group (N = 36) did not practice during the 6 week experimental period. All subjects participated in a pretest, a posttest, and a retention test. Both treatment groups significantly improved overhand throwing distance scores over time. No significant improvements occurred in the control group. Analysis of process characteristics revealed significant differences between the treatment groups for the backswing and forearm components, and gender differences for the stepping and trunk action components. The study reaffirmed the need for instruction and practice to improve overhand throwing distance and process characteristics of children.

Kwak, Eun Chang. (1993). *“The initial effects of various task presentation conditions on students' performance of the lacrosse throw.”* Advisor, Dr. Kathy Graham.

Investigations of teachers' verbal presentations in the classroom and in physical education have provided a beginning though limited understanding of what constitutes effective teacher presentations in settings involving motor skill instruction. The purpose of this study was to determine the effects of five different conditions of task presentation upon students' initial attempts to perform the overarm lacrosse throw. The five task presentation conditions were control group--no task presentation, verbal explanation with partial demonstrations, full demonstrations only, overload verbal explanation with partial demonstrations, and verbal explanation with full demonstrations, summary cues, and verbal/visual rehearsal. The dependent variables were students' scores on measures of (1) accuracy in throwing the lacrosse ball and (2) use of appropriate movement process characteristics (i.e., form or technique). A secondary purpose was to determine information subjects remembered about the lacrosse throw from the task presentations. Subjects were one hundred twenty-seventh (n = 60, 30 males and 30 females) and eighth (n = 60, 30 males and 30 females) grade students who were randomly assigned to one of five experimental conditions (n = 24 subjects per treatment group with equal numbers of males and females, seventh and eighth graders). Separate videotapes were made of a teacher delivering each of the five experimental conditions of task presentation. The videotape was the method used for administering the designated treatment to each subject. After watching the assigned tape, each subject was videotaped making 20 throws to a target, and was interviewed afterwards. Results from analysis of students' throwing accuracy and movement process characteristics, as well as interviews, indicated that the experimental condition of a verbal explanation with full demonstrations, summary cues, and verbal/visual rehearsal resulted in the best student performance on each of the three dependent measures. The results have implications for research and practice in physical education.

Brown, Sharon. (1994). *“The effects of limited and repeated demonstrations on the development of fielding and throwing in children,”* Advisor, Dr. Judith Rink.

The purpose of this study was to investigate the effect of limited and repeated demonstration of tasks on the development of fielding and throwing skills in children. Third grade students (N = 39) were assigned to one of two treatment groups (limited and repeated). An additional group of third graders (N = 20) was used as a control group to determine the presence of a testing effect. Subjects in the limited group (N = 20) received one demonstration for each task delivered by the teacher and subjects in the repeated group (N = 19) received five demonstrations for each fielding and throwing task presented by the teacher. Both treatment groups received four 50 minute lessons over a two week period. Subjects in the control group did not participate in fielding and throwing during the experimental period. All subjects were pretested and posttested. A retention test was given to the experimental group four weeks after the posttest. Both treatment groups significantly improved fielding accuracy and throwing accuracy scores over time. Analysis of the product and process characteristics revealed no significant differences between the experimental groups. No significant improvements occurred in the control group. Both experimental groups received a significant number of demonstrations beyond what is normally provided by most teachers during skill instruction (Werner & Rink, 1989). This factor may account for findings of no difference between the groups. Changes or lack of changes in process characteristics were directly attributable to the instructional focus.

Taylor, John Kevin. (1994). *“Developing observational abilities in preservice physical education teachers,”* Advisor: Dr. Judith Rink.

Skillful observation is critically important to effective instruction in physical education (Barrett, 1983). Despite its importance the development of observation as a teaching skill has received relatively little attention from the research community (Stroot, in press; Radford, 1989; Pinheiro & Simon, 1992). Recent attempts have been made to describe how observational ability develops within physical education teacher education (PETE) programs (Barrett, Allison & Bell, 1987; Bell, Barrett & Allison, 1985; Belka, 1988; Graham, French & Woods, 1993). A need has emerged for intervention studies that examine the effectiveness of different methods of developing observational ability within preservice PETE programs (Belka, 1988). The purpose of this study was to compare two approaches to the development of observational ability in 38 preservice physical education teachers. One approach trained subjects to use a series of established observational systems (OS; N = 17) and frameworks for the analysis and description of human movement. An alternative orientation addressed observation holistically as a Context-Based (CB; N = 21) decision making process. A secondary intent was to examine the issue of appropriate placement within the PETE curriculum to develop observational ability. A control group was formed (N = 9) of students with a demonstrated interest in physical activity and the development of motor skills. Pre and post test procedures examined the ability of subjects to describe and evaluate videotapes of two 10 minute physical education lesson segments and 12 individually performed movement tasks. Results were consistent with previous research in terms of the target of preservice teachers observations about instruction. The way that subjects observed instruction did not appear to change although a need for further research was established. An apparent treatment effect was observed in the ability of subjects from the CB treatment group to make contextually appropriate observations of individual movement tasks. Subjects with previous instructional experience were found to report more contextually appropriate observations than those without such experience. This study represents a first attempt to develop observational ability through intervention into an established PETE program, there is a need for more such research.

Nevett, Michael. (1996). *“Knowledge content, sport-specific strategies and other self-talk accessed by shortstops of different ages during defensive game performance,”* Advisor: Dr. Karen French.

The purpose of this study was to describe the developmental changes in knowledge content, sport-specific strategies and other self-talk accessed during game performance of youth baseball shortstops. Participants were 32 male shortstops (seven 8-year-olds, eight 10-year-olds, nine 12-year-olds, and 8 high school age youths) who were trained to perform a concurrent talk-aloud procedure before and between pitches to the opposing batter. Subjects' transcripts were coded using several developed coding systems. Subjects also completed a 40 question multiple choice baseball test. Players' age was highly correlated with their baseball knowledge ( $r = .88$ ) and any subsequent age differences generally reflect differences in players' knowledge. During game play, high school players accessed more total concepts, a greater variety of concepts and had more baseball knowledge than the younger shortstops. Player's baseball knowledge was developing across age based on a hierarchical goal structure with the high school shortstops accessing larger, more integrated chunks of action sequences related to advanced goals. Younger shortstops (12-year-olds and under) produced the following sport-specific strategies: (i) monitoring the environment; and (ii) prediction of future game events. However, the quality of these strategies was poor. The younger shortstops frequently did not produce these sport-specific strategies: (i) specialized search and retrieval of long-term memory; (ii) planning in advance; (iii) rehearsal of plans; (iv) modifications or updating of plans; and (v) acting as external memory aid for teammates. When they did produce these sport-specific strategies, the quality was generally poor. High school shortstops produced all of these sport-specific strategies more often than the younger shortstops with advanced quality. Overall, the results of this study suggest that highly organized content knowledge is required for the development of sport-specific strategies, which may mediate game response selection performance.

Coleman, Margaret. (1997). *“A comparison of selected supervisory skills of cooperating teachers and Clinical Model Teachers,”* Advisor: Dr. Murray Mitchell.

The supervisory behaviors, skills and perceptions of two groups of cooperating teachers were compared. One group of cooperating teachers (Clinical Model Teachers--CMTs), represented a group selected for their teaching skills and trained through graduate coursework in supervision and effective teaching practices. A second group of experienced supervisors (Other Cooperating Teachers--OCTs) had not undergone formal training associated with any specific teacher education program. It was hypothesized that the two groups would be different in their supervisory approaches with the CMT group demonstrating a higher level of supervisory expertise.

Participants viewed a video tape of a lesson taught by a student teacher, then prepared a written critique. Participants were interviewed twice with regard to their supervisory practices, strategies, and conferencing techniques.

Results showed clear differences between the two groups of cooperating teachers particularly with regard to the explicitness of their feedback and their use of prescriptive conference strategies. CMTs were found to be similar as a group in the way they viewed lessons, their written critiques, the language used to discuss teaching performance and observational instruments used to assess teaching.

Both groups stressed the importance of feedback during student teacher conferences. Furthermore, the training background of CMTs was evident in their conference strategies, expectations for the student teacher and demonstration of a shared technical culture (Lawson, 1983). Also notable was the finding that while CMTs exhibited group similarity, the OCTs were dissimilar as a group.

Several implications appear warranted as a result of this study. First, teacher education programs can benefit by training cooperating teachers through partnership in their programs. Second, an initial definition of supervisory expertise has been developed. Third, a protocol for further study of cooperating teachers has been tested.

Ellis, Sally Dee. (1997). *“Student problem behavior and teacher responses in physical education,”* Advisor: Dr. Judith Rink.

Student problem behavior (SPB) is defined as chronic patterns of inappropriate, distracting or disruptive behavior. Both inexperienced and experienced physical educators find SPB frustrating and stressful (Bain & Wendt, 1983; Fernandez-Balboa, 1991; Templin, 1989) and yet little is known about how teachers should deal with problem behavior. The purpose of this study was to describe SPB and teacher responses (TR) to SPB in the physical education classes of competent teachers. More specifically the study describes: (a) the types of SPB exhibited in middle school PE; (b) the context under which SPBs most frequently occurred; (c) TRs to various categories of SPBs; (d) teacher perceptions of coping strategies for types of SPB. An average of three target SPB students were identified in each of the classes of 10 experienced PE teachers from four middle schools. Data on SPB categorized as manipulative, manipulative-task-oriented, passive-aggressive, hostile-aggressive and hyperactive and TRs were collected in 61 live observations. Data on teacher perceptions of the strategies they would use to deal with SPB was collected through vignette interviews. SPB occurred in 70% of the total intervals (986) observed and teachers responded to it only 24% of the time. Passive-aggressive behavior elicited the highest frequency of TRs to SPB, while hostile-aggressive behavior received a TR less frequently. SPB occurred in all physical education contexts but there was a particularly high percentage of SPB that occurred during warm-up contexts (61%). Through constant comparison analysis, the vignette data revealed seven themes of TRs (i.e., alter environment, address class, reinforce, private talk, desist/warn, ignore, punishment).

Sperry, Kevin. (1997). *“The effects of differing sources of information on the immediate responses of second grade students to a soccer receiving and passing task,”* Advisor: Dr. Karen French.

There are a variety of theories (Schmidt, 1975; Bandura, 1984; Gibson, 1966; Turvey, 1977, Newell, 1991) that suggest the type of information used to produce a motor pattern. This research examined the influences of differing sources of information on students motor skill acquisition. Sources of information were identified as teacher (task presentation, demonstration, feedback), environmental, task, organismic, and outcome redundant with vision (success rate). Sixty-seven second grade students were randomly assigned to one of five treatment groups receiving varying amounts of teacher information. Participants acquisition trials were analyzed and patterns used to perform the motor skill were recorded. Students unsolicited verbal comments were also recorded. Data was analyzed using constant comparison. Four categories (consistent, incremental, changer, & explorer) of students emerged from this analysis. Results suggest that there are individual differences as to what information is being used to mediate performance. All sources of information were used to mediate performance and in some instances one source of information would replace another as the mediating factor for motor skill execution. Theoretical and instructional implications are discussed as well as the need for future research.

Fleming, David. (1998). *“The impact of state-mandated change and a systemic inservice training project on high school physical education curriculum,”* Advisor, Dr. Judith Rink.

Effective curricular change in secondary physical education is necessary if programs are to meet contemporary objectives such as those found in the proposed National Standards for Physical Education (NASPE, 1995). The knowledge base on how to produce that change is not extensive, particularly in physical education.

The purpose of this study was to describe the change efforts of forty-one schools as a result of completing a year long in-service program to implement the mandated South Carolina High School Criteria for the required physical education unit. The in-service program was conducted by The High School Physical Education Institute of South Carolina. The program provided the impetus for schools to develop their own implementation plans and adjust their curriculum and scheduling procedures to enable their students to meet the four performance standards described in the criteria.

The change efforts studied included the changes made or proposed to be made to curriculum within the programs. Specific attention was concentrated on those factors which facilitated or inhibited change both within and outside the school. Data collected was analyzed primarily through qualitative methods. Twenty-five schools were randomly selected for in-depth study. These schools were studied through a series of document analyses, interviews, and observations. Site visits were conducted to collect this data. Follow-up phone interviews emphasized the teacher perceptions of what worked, what did not work, and why. The remaining sixteen schools were studied through an analysis of documents and surveys.

This research analyzed a top-down, systemic change process as it occurred at a macro level. Factors leading to successful and unsuccessful adoption and implementation were identified including the importance of institutional, administrative, and departmental commitment. Orchestration of various aspects of change initiatives was most effectively accomplished through frequent meetings and collaboration among teachers, guidance departments, administrators, and staff development personnel. Mandated criteria, student activity choices, and longer units of instruction facilitated change. Hindrances included the wide ranging initial student skill and fitness levels, large class sizes, and the difficulty in procuring support for change in a low stakes curricular area such as physical education.

Williams, Cynthia. (1998). *“The relationship between teachers' race and student race and gender and teacher-student interactions,”* Advisor: Dr. Judith Rink.

The purpose of this study was to examine the relationships among the race of the teacher and student, and the gender of the students in teacher-student interactions in secondary physical education. It was also the purpose of this study to examine the relationship between teachers' and students' perceptions of teacher interactive behavior, and researcher observed behavior. The classes of ten female secondary physical education teachers from nine high schools in integrated school settings were observed three times. All lessons were videotaped and coded for teacher-student interactions using a modified version of the Observational System for Content Development in Physical Education - (OSCD-PE) (Rink, 1979). Teacher-student interaction data were analyzed with an analysis of variance for each of the dependent variables. Black males received most of the teachers attention, followed by White males, Black females and White females. Results also revealed that there were no differences between White and Black teachers in their interactions with students. To assess teachers' and students' perceptions of the teachers' differential treatment, an 11-item questionnaire was used. Results revealed that there were few differences between students in their perceptions of their teachers' differential treatment. Consistent with the literature, for the most part, students reported that their teacher treated everyone the same (Weinstein, 1989). Comparison of the perception data with the observational data revealed several findings; (1) overall, there was little relationship between students' and teachers' perceptions; (2) only White females and their teachers agreed in their perceptions; (3) high-interaction students and their teachers agreed that these students received more interactions; (4) and the perceptions of low-interaction students were accurate, while their teachers perceived that they treated these students the same as other classmates. To gain further understanding into the reasons for teachers' differential treatment, semi-formal interviews were conducted with each of the teachers. Teachers' reasons for differential treatment included a myriad of responses including recognition of gender differences in treatment of students, teacher and student personality, individual student need, and student behavior that demands more or less attention.

Wirszyla, John Christopher. (1998). *“Case studies of state-mandated curriculum change in three high school physical education programs,”* Advisor: Dr. Judith Rink.

High school physical education has been identified as inadequate in meeting student needs. Recently high school physical education programs in South Carolina have undergone a major reform effort initiated by legislation and implemented through an extensive cooperative three year in-service effort by the State Department of Education, the SCAHPERD professional group, and university physical education faculty of the state.

A critical strategy of this reform effort was to establish demonstration schools in the third year of the program. The strategy of using demonstration schools to model reform efforts is an accepted approach to disseminating new ideas and making educational change. The demonstration schools should be the most advanced and "best case" scenarios for the change effort.

The purpose of this study was to examine the extent to which three selected programs of physical education in demonstration schools were able to achieve the goals of the reform effort, and to identify factors that facilitated and hindered implementation. Data were collected on the extent of curricular implementation, student achievement, and facilitators and hindrances to change. Interviews, observation, and document analysis were primary data sources reported as case studies of reform.

Results showed similarities and differences between the three schools concerning intended curriculum, actual instruction, grading procedures, facilitators and hindrances to implementation, and strategies used to overcome hindrances. Teachers were at different levels of implementing the criteria. Grading varied within and between schools. Facilitators to implementation included: a "driving force" at each school; supportive administration; collaboration among teachers; community resources; and, student choice. Hindrances included: apathetic students, lack of space and equipment; coaching duties; and, a lack of community resources.

Several implications appear warranted from this study. First, the teachers within the department must collaborate so they share a unified vision. The Physical Education Institute can benefit from this collaboration by designing in-service training to address the concerns of the teachers. Second, the teachers need to be held accountable for teaching toward the criteria. Third, the administration needs to become more involved as a facilitator for staff collaboration and accountability. Finally, students need to be held accountable for their learning.

Barton, Regina. (1999). *“Differences in process characteristics between high- and low-skilled youth baseball players,”* Advisor: Dr. Karen French.

The purpose of the first study was to investigate the movement patterns for throwing and the combination skill of fielding and throwing of high and low skilled baseball players. Participants were 79 male Little League players (twenty-three 7-year olds, twenty-one 8-year olds, twenty 9-year olds and fifteen 10-year olds). Process characteristics of players throwing for distance and fielding and throwing were observed. Significant differences were observed between high and low skilled players for the preparatory arm-backswing, humerus, and forearm components of the overarm throw. High skilled players were more advanced, and these differences were consistent at each age. Significant differences were observed between high and low skilled players for the approach and control components of fielding. High skilled 7- and 8-year olds charged the ball more timidly than high skilled 9- and 10-year olds. The 7- and 10-year old high skilled players used a one-handed scoop successfully to field the ball whereas their low skilled peers fielded the ball with two hands. This study suggests that the potential causes of those differences in skill execution may be occurring at younger ages than previously believed. The purpose of the second study was to describe the throwing profiles of 108 Little League baseball players 7- to 10-years old. Five different profiles out of 27 possible combinations of the trunk humerus and forearm emerged. The Little League baseball players demonstrated a 2-3-3 profile most frequently whereas a 2-2-2 profile was the least advanced profile exhibited. Out of the possible 432 combinations of the preparatory arm-backswing, foot action, trunk humerus and forearm components, only 17 profiles were observed. Ninety-five of the 108 players were modal in one of the 17 profiles. The most frequently observed profile at each age was 4-4-2-3-3. These findings suggest that certain movement patterns are more likely to occur than others. The amount of practice and experience accumulated by these players may increase the likelihood of a using advance forearm action.

Stanne, Kathryn. (1999). *“The effect of a varied and choice curriculum on the participation, perceptions and attitudes of females in physical education,”*  
Advisor, Dr. Judith Rink.

Gender equity in physical education has been a concern of physical educators. A decline in participation of females in physical activity as they move through adolescence, the fact that females receive less attention in classes than males, and ability grouping based on gender not skill are concerns cited in the research (Browne, 1992; DeVoe, 1991; Griffin, 1985a, Orme, 1991 1985a; Vertinsky, 1983). The purpose of this study was to investigate two curriculum strategies recommended for enhancing equity within the classroom to see how they would influence the engagement of females in their physical education classes. These strategies were expanding course offerings to include activities other than team sports and providing students with the opportunity to choose among those courses. Twenty-three ninth grade girls from two large urban high schools across four classes implementing these recommendations in their physical education programs were studied over two different units of instruction. Data was collected on students' level of engagement, perceptions and attitudes about physical education in general and perceptions and attitudes about their participation in the classes they were taking. Sources of data included surveys, systematic observation, interviews, informal interviews, field notes, and journal entries. Results from this study indicate that choice was received enthusiastically by females. Participants in this study were highly engaged in all classes observed. Factors that influenced student engagement were a desire to learn, their own skill level (perceived or real), how much they liked or enjoyed the activity, their mood, and interactions with peers. Class context was the most important factor mediating student levels of engagement. Participants chose activities they were familiar with that included a predominance of team sports. The majority of participants positively received the individual activities in each pair suggesting that offering a variety of activities is worthwhile. Findings from this study have implications for how activities may be chosen for the curriculum, how information about courses is provided to students, and how instruction is delivered within the classroom.

Gorecki, Jennifer. (2000). *“Knowledge representation of volleyball players,”* Advisor: Dr. Karen French.

Research in knowledge representation using verbal protocols has shown that in tennis, baseball, and volleyball, experts have more sophisticated response selection during competition. This study was designed to further describe the knowledge representation of volleyball players. Ten members of the University of South Carolina Varsity Volleyball Team and ten physical education majors enrolled in a volleyball class at the University of South Carolina participated in an interview session to elicit problem representation and solutions to five volleyball game situations. Interviews were transcribed verbatim and coded using a model of protocol analysis. Quantitative analysis of verbal data revealed no significant differences in the number of major concepts (conditions, actions, and goals) generated by participants. Although non significant, experts generated slightly more conditions and actions whereas novices generated slightly more goals. The differences in the knowledge representation of experts and novices was greatest in the quality of the representation and the content accessed by experts and novices. Experts accessed more tactical content (to locate, identify, and read opponent) and more of their opponent's tendencies than novices. Novices accessed few player tendencies, and few conditions to locate, identify, and read the opponent. Novices were primarily concerned with their positioning on the court and the location of the ball. The experts paid attention to and accessed concepts that were part of the offensive and defensive context (i.e. alignments, formations, systems). Experts attended to visual processing of offensive and defensive attack options and patterns. Findings indicate that a sophisticated knowledge structure and representation is at work as these experts attend to opponents' options and patterns rather than merely detecting the ball or watching it's flight. There is evidence that they use current and past event information to plan future actions and predict future events in the game.

Ayers, Suzan. (2001). *“Development of instruments to assess the subdisciplinary concept knowledge of physical education students”* Advisor: Dr. Judith Rink.

The value of conceptual physical education knowledge has long been acknowledged (AAHPER, 1969; Dodds, 1987; Kneer, 1981; Mohnsen, 1998; NASPE, 1992, 1995) yet has not been formally measured or assessed. The most recent attempt to define the body of knowledge important for physical education students has been outlined in the text, *Concepts of Physical Education: What Every Student Needs to Know* (Mohnsen, 1998). Based on this text, a seven-test battery was designed to assess the subdisciplinary areas identified as physical education critical knowledge.

Multiple-choice and interpretive exercise tests were created to assess high school students' conceptual physical education knowledge. Items were categorized by cognitive demands and by the critical concepts outlined in each chapter of the *Concepts* text. Two pilot tests were administered (n = 413) to high school students, content area experts reviewed all items, and judgmental item bias review procedures were completed on all tests.

Content and construct validity were investigated and found to support the quality of the items and the constructs being assessed. The reading characteristics of the ASKPE battery were investigated and reported as equivalent to an average sixth grade reading level. The final tests, completed by 3,263 students in 16 states, had difficulty levels ranging from 0.48-0.61 and reliability values between 0.70-0.94. The ASK-PE battery of tests provided a valid and reliable measure of conceptual physical education knowledge, as identified in the *Concepts* text (Mohnsen, 1998).

Student performance in the present sample differed significantly by gender, race, and levels of physical education and physical activity. On all seven tests, the average score of females was higher than males and Caucasians' average score was higher than all other racial groups.

Gabbei, Ritchie. (2001). *“The behaviors and perceptions of teachers and students in middle school physical education as mediated by gender,”* Advisor: Dr. Murray Mitchell

Title IX was designed to address gender equality concerns in schools; so how well is it working? Research has revealed that female students prefer all female classes (Lirgg, 1994), and male students dominate interactions and lessons to the detriment of females (Bischoff, 1983). Behaviors and perceptions of teachers are pivotal in determining the impact of class groupings. The purpose of this study was to contrast teacher and student behaviors and perceptions in same gender and coed classes taught by one male and one female physical education teacher who taught invasion games in three conditions, all male, all female, and coed. Students were skill tested to determine skill improvement. Three male and female students were randomly selected for interviews after each unit to determine student perceptions. Teachers were interviewed before and after instruction to determine changes in perceptions. All classes were videotaped for later coding of type and game stage (Rink, 1998) of task, task explicitness, and task accountability (Silverman, Subramaniam, & Woods, 1995). Student responses were coded for task congruence and success. Incongruent tasks were coded as modified up, down or off-task. All interviews were analyzed using inductive analysis (Patton, 1990). Results indicated that the male teacher primarily chose game stage four (61%) extensions (40%) while the female teacher primarily chose game stage one (47%) extensions (74%) across all conditions. Teachers were more explicit with same gender classes. Both teachers held students accountable by monitoring and giving feedback. They perceived that students enjoyed single gender classes more than coed, due to lack of distraction from opposite gender students. Skill test and student response data indicated more improvement and more congruent successful practice trials occurred when students were taught by same gender teacher. These results are discussed in the context of reconsidering decisions regarding best practice for achieving both movement competence and gender equity. Student behaviors and perceptions can be used to reconsider grouping by gender in physical education. If skill performance is a primary goal, then this study suggests that teachers may be best suited to teach single gender classes that match their gender.

Castelli, Darla. (2002). *“A comparison of high and low performing secondary physical education programs in South Carolina,”* Advisor: Dr. Judith Rink.

Despite calls for reform in physical education (Rink, 1993) few large scale attempts to make comprehensive and systemic change have included physical education and even fewer attempts have documented that change. The purpose of this study was to compare high and low performing schools in a state secondary physical education, high stakes assessment and accountability program.

The South Carolina Physical Education Assessment Program (SCPEAP) required teachers to assess samples of students to evidence competency across four state mandated performance indicators. The state mandated criteria required students to be competent in two movement forms, take a written test on health-related fitness, participate in physical activity outside of physical education and meet the age and gender requirements on a fitness test. This study examined the performance of all 62 schools quantitatively and four high, two medium, and four low performing, high compliant schools qualitatively.

Quantitative data were submitted by teachers and analyzed using descriptive statistics to identify the performance levels of schools, teachers, and students. Qualitative data sources included teacher surveys, teacher interviews, and documents. These data were analyzed using descriptive statistics and a constant comparative analysis. A matrix was used to synthesize all data sources.

The findings of this study revealed that the SCPEAP was able to discriminate between high and low performing schools, teachers, and students. Student performance was best on the cognitive test of health-related fitness knowledge and lowest on meeting the age and gender requirements of the Fitnessgram. Dance activities produced the most competent students, while the activities of bowling, softball, and racket sports had the lowest level of competency.

High and low performing schools differed primarily by the characteristics of teachers, department cohesion, and school climate. There were also notable differences in curriculum, instruction, strategies related to assessment, teacher perceptions, roles and relationships. All schools participating in this study made change to their programs; the amount and timing of that change was different across performance levels. Despite some data collection issues this physical education reform in South Carolina produced some substantial positive change.

Stewart, Susan. (2002). *“Instructional variables and high school students’ knowledge and conceptions of health related fitness,”* Advisor: Dr. Judith Rink.

The purpose of this study was to describe high school students' knowledge and conceptions of health-related fitness and provide recommendations for improving health-related fitness instruction and assessment in high school physical education. Primary data sources included a self-report survey designed to measure variables relating to the instruction of personal fitness and a written test used to assess students' knowledge of health-related fitness concepts.

Analyses revealed significant findings relating to both instruction and learning. Instructional issues that may impact student knowledge and conceptions of fitness included limited space and textbooks, emphasis on participation as a tool to assess knowledge of fitness concepts, and teachers' inaccurate conceptions of several FITT principles. Student knowledge and conceptions of health-related fitness were found to be narrow, vague, and often incorrect. Problem areas included the concept of specificity, goal setting, and application of FITT principles, particularly the concept of intensity. The majority of students had problems applying basic principles to a real-life situation.

Practical applications to physical education include a shift from low-order objectives such as memorization of terms and concepts, to higher-order objectives such as problem-solving and transfer to real-life situations. With the ultimate goal of increasing lifetime physical activity among our students, findings such as these may provide the framework necessary to create new and creative ways of teaching for learning and transfer to the real world.

Thompson, Lula. (2002). *“Racial and regional physical activity patterns of high school girls enrolled in required physical education in South Carolina,”* Advisor: Dr. Murray Mitchell.

The purpose of this study was to examine why high school girls enrolled in required physical education would choose to take or avoid elective physical education in South Carolina. Secondary purposes of this study involved the search for racial and regional patterns. Three elements of the Kenyon and McPherson Model (1973) (personal attributes; socializing agents; and social situations) were used to frame this investigation. Five hundred and forty (540) high school girls from 28 high schools in South Carolina volunteered to complete a 6-page, self-report, 116-item questionnaire that was administered by the regular physical education teacher. The analysis of results was done using Windows 98 SPSS software and scantron machine. Both quantitative and qualitative data were generated. Descriptive statistics (frequencies, percentages, means, and some standard deviations using cross-tabulation) were acquired. Responses to one open-ended question were sorted into categories following a constant comparison protocol. Results revealed that patterns of girls overall, girls who would elect physical education and girls who would not elect physical education were similar with only slight differences (non-significant) overall and regionally in personal attributes, socializing agents and social situations. However, there was a significant difference in some patterns by race in social situations between black girls and white girls. Almost twice as many black girls (60.9%) would elect physical education than white girls (33.9%). Some girls responding no or yes to question #1 gave reasons for electing or not electing physical education. By region, more respondents in the southern region (48.7%) than respondents in the northern region (43.8%) would choose elective physical education. However, these differences were not significant. In responding to whether or not significant others would have any influence on their decision to participate in elective physical education or not, there were differences in the order of influence, but, no other significant differences. Some girls responding no or yes to the open-ended question #1 gave reasons for choosing or avoiding physical education. Top choices on each side refer to enjoyment of physical activity. Those who would choose to take an elective physical education course enjoy being active while those who would not make this choice do not enjoy physical activity.

Williams, Lori. (2002). *“Teacher competency using observational scoring rubrics,”*  
Advisor: Dr. Judith Rink.

The current standards, assessment and accountability movement relies heavily on the production of both valid and reliable data as evidence of student progress and the quality of educational programs. Statewide assessments provide the public, administrators, state governments, and accrediting groups with assessment data as a means to evaluate students and programs. It is important that the data provided be an accurate reflection of student achievement of standards.

In South Carolina, high school physical education teachers are required to collect and submit student assessment data on the four state mandated performance indicators as part of a state level assessment program. Assessment material is available for twenty-one movement forms for the assessment of performance indicator one, competency in movement forms. Teachers follow testing protocols to videotape student performance and then assess the performance using a scoring rubric. Teachers submit videotapes, student scores, and class roles to SCPEAP. A monitoring committee samples the teacher data and checks for compliance with testing protocols and data accuracy.

The purpose of this study was to investigate the accuracy of teachers using scoring rubrics to assess student competency in movement forms and teacher compliance with the testing protocols of a state assessment program. Factors related to teachers' ability to use scoring rubrics accurately, data compliance, and differences between teacher scores and monitoring committee scores were also investigated. Data sources included teacher assessment data submitted to SCPEAP, assessment material generated by the monitoring committee, and SCPEAP records. Data analyses included descriptive analysis, analysis of variance, and Pearson correlation.

Results revealed that teachers can use scoring rubrics to accurately assess student motor performance when making a judgement about competent and not competent student performance. Student skill level was significantly related to teacher accuracy. The majority of the data sets were accepted by the monitoring committee, however minor protocol violations were common. Teachers who received training and female teachers submitted compliant data more often. The activity assessed was also related to compliance and accuracy.

This is the first study to document reliable teacher use of rubrics as an assessment of students' abilities and progress towards achieving content standards.

DaMatta, Gylton. (2004). *“The influence of deliberate practice and social support systems on the development of expert and intermediate women volleyball players in Brazil,”* Advisor: Dr. Karen French.

This study examines the role of deliberate practice of ten experts (world-class) and 10 intermediate (collegiate/recreational) women volleyball players in Brazil. Multiple data source (in depth retrospective interviews, time line chart, event map and field notes) are analyzed, transcribed and coded adopting major theoretical themes. Findings from qualitative analysis reveal a distinct model of expertise associated with high-level social clubs system and the national talent development program in Brazil. Experts experienced more practice time per week and more overall amount of competition than intermediate peers. The Brazilian volleyball school presents a unique model of expertise development. Findings, breakthroughs, new watersheds and new miles stones add important tenets to Ericsson's Deliberate Practice theory, Côté's Deliberate Play theory as well as all previous studies in expertise development (Ericsson et al. 1993; Côté, 1999a), both in Brazil, soccer, swimming and rhythmic gymnastic (Moraes & Salmella, 2003), as well as other cultural contexts' individual and team sports (Helsen et al, 1998; Starkes, 2001).

Wang, Jianyu. (2004). *“Developmental trends for badminton game play across skill levels: An exploratory study,”* Advisor: Dr. Judith Rink.

The purpose of this study was to describe developmental trends for badminton game play across skill levels. Eighty students (40 boys and 40 girls) from 16 high schools in South Carolina were randomly selected to participate in the study. The performances of the students were part of the data base of the South Carolina Physical Education Assessment Program (SCPEAP). The teachers from the 16 high schools videotaped student performance in badminton, scored the performance of the students on a 0-3 scale with the rubric developed by SCPEAP, and submitted the videotapes to SCPEAP as evidence of student competence in badminton. An attempt was made to obtain ten boys and girls for each of the four skill levels. An observational instrument was designed to analyze skill performance across the four skill levels. Both content validity and objectivity of the instrument were examined. Developmental trends in both skill execution and tactics application were identified. Results revealed that students at Level 1 had difficulty making contact with the shuttle and placing a shuttle into the legal service area. Students at this level largely used less effective strokes. Tactically, students were able to place a shuttle two or three steps away from their opponents and rarely returned to homebase. Students at Level 2 started to use the short serve and increased the use of the clear. A return to homebase was most evident at this level. Students at Level 3 increased to use the long serve, clear, and drive. Students at Level 3 continued to increase the level at which they returned to homebase. Students at Level 4 increased the use of drive serve, but primarily used the developmental serve. Level 4 students continued their progress in the use of all types of effective strokes. Slow but steady progress toward a return to homebase, the use of forceful strokes, and placing the shuttle away from opponents occurred.

Jones, Laura. (2005). *“The effects of contextual interference on the acquisition and retention of three volleyball skills,”* Advisor: Dr. Karen French.

Contextual interference has been studied for many years examining a variety of tasks, a variety of individuals (both in age and skill level), and a variety of environmental contexts (Brady, 1998; Magill & Hall, 1990). Low contextual interference designs (blocked) initially have been found to enhance acquisition performance as compared to high contextual interference (random). However, during retention and transfer testing the random group demonstrates superior retention and transfer performance.

Magill & Hall (1990) hypothesized when variations of different motor programs (intertask variations) are manipulated, contextual interference will be found. A majority of the research in this field has manipulated tasks with intratask variations. In an effort to determine which manipulation of task variation demonstrates this effect, the purpose of this study was to examine contextual interference among three volleyball skills without intratask variations. Fifty-one high school students were randomly assigned to one of three experimental groups (blocked, random-blocked, and random) from three intact volleyball classes. All participants practiced the AAHPERD volleyball skills test (Strand & Wilson, 1993) for the underhand serve, forearm pass, and overhead set. Acquisition consisted of 90 practice trials of each skill and was administered over nine days. Retention was conducted 48 hours after acquisition.

The acquisition data for the forearm pass, set, and the serve were analyzed in separate 3 x 9 (Group x Trial Block) ANOVAs with repeated measure on the last factor. Retention data and the last block of acquisition were analyzed in separate 3 x 2 x 3 (Group x Retention Order x Trial Block) ANOVAs for the forearm pass and overhead set. A 3 x 2 x 2 (Group x Retention Order x Trial Block) ANOVA was used to analyze retention data for the serve.

It was hypothesized that the random group would perform better at retention than the blocked group for all three skills; while the blocked group would perform better by the end of acquisition. Neither hypothesis was supported. Future research is needed to determine the type of task (same or different motor programs), the characteristics of the learner and the environment in which contextual interference effects are found.

Kirby, Kym. (2005). *“High school principal's perceptions and support for a state physical education assessment program,”* Advisor: Dr. Judith Rink.

While the need for systemic change in physical education has been well documented in the literature (Rink, 2002; Rink & Williams, 2003; Siedentop, 1987; Stroot, 1994), physical education has largely not been successful at systemic reform and has for the most part been excluded from large-scale efforts to reform education (Ward & Doutis, 1999). In 2001, South Carolina chose to be a part of a state reform effort by establishing a physical education assessment program based on student achievement.

Although it has been difficult to identify generic indicators contributing to overall school effectiveness and successful educational reform, studies in school effectiveness (Cuban, 1984; Dow & Oakley, 1992; Edmonds, 1982) and in school reform (Fullan, 2001) have consistently identified the role of the principal as a critical contributing factor to school effectiveness and to reform implementation success. The school principal would be expected to be a major player in physical education reform efforts as well.

The purpose of this study was to describe the perceptions and support of South Carolina high school principals concerning the South Carolina Physical Education Assessment Program (SCPEAP). Seventy-seven high school principals completed an on-line survey describing their awareness, perceptions and support of the assessment program. Eight principals representing different levels of support were interviewed to gain a deeper understanding of information and eight teachers were randomly selected to participate in a follow-up interview in an effort to verify principals' responses. Quantitative data from the survey were analyzed using frequencies and descriptive statistics. Qualitative data from open-ended responses and interviews were also analyzed.

The results revealed that principals were generally positive and supportive of the SCPEAP although support levels varied. The majority believed the assessment program has had a positive impact on physical education programs in their schools. Although principals reported a high level of awareness of the program in general, they lacked a comprehensive understanding of program procedures and the different components of the initiative. By and large, principals did not take more active roles in the assessment program but indicated they would become highly involved if the program became a mandate and was publicly reported.

Pebworth, Katherine. (2006). *“High school physical education curriculum in the state of South Carolina,”* Advisor: Dr. Judith Rink.

In spite of the importance of curriculum and curriculum planning to the educational process, research on curriculum and curriculum planning is limited (Jewett, Bain, & Ennis, 1995). This is particularly true in physical education. We know little about how teachers organize physical education curriculum or the effectiveness of different curriculums.

In South Carolina, high school physical education teachers collected and submitted assessment data on the four state mandated performance indicators as part of a state level assessment program. This study focused on the intended/written curriculum (school assessment plans) and the learned curriculum (school score) of 112 high schools in South Carolina. While it is assumed that teachers intend more than what is designated and described in their assessment plans and that students learn more than what is measured by assessments of performance indicators, this study can begin to establish relationships between what is intended and what is learned.

The purpose of this study was to describe the high school physical education program in South Carolina and relationships between program characteristics, program effectiveness and other teacher and school characteristics. Issues including the Sport/Activity Competency Score, the written curriculum, differences between cycles and Physical Education Institute and teacher development sessions were investigated. Data sources included school assessment plans and data for Performance Indicator One that were submitted to SCPEAP, school score on the physical education report card, and attendance at the Physical Education Institute (PEI) and assessment training sessions (1996-2003).

Results revealed that team sports/activities was taught more often than any other category, however weight training (fitness) was the most taught sport/activity. Even though the schools were still using a multi-activity curriculum model the majority of schools were going to longer units of instruction. A Sports/Activity Competency Score was created from the scores of accepted data from each Performance Indicator One class submitted. While there was not much difference in the over all sport categories being taught from Cycle One to Cycle Two there was a slight shift in a reduction of individual sports to an increase in fitness and dance. No real difference in curriculum offerings between small (1A) and large (4A) schools was found. Curriculum characteristics and teacher attendance at Physical Education Institute and teacher assessment training sessions identified that the Low Teacher Development (LTD) spent more time on team and individual sports/activities than did the High Teacher Development (HTD).

This study will serve as a baseline for curricular change over time.

Bott, Timothy S.. (2006). “*A descriptive study of physically active adults in three team sports,*” Advisor: Dr. Judith Rink.

In the United States 60% of the adult population is considered overweight or obese and in South Carolina only 46% of the population meets the recommended requirements for physical activity (USSDHHS, 1996). Lack of physical activity has been identified as a major cause of obesity in an overweight population (USSDHHS, 1996). Physical education programs in schools have been targeted as a preventive measure against obesity and other health related problems of both adults and the current population of youth. The purpose of this study was to describe the relationship between skill level, self efficacy, and previous experience of 102 adults active in recreational team sports. More specifically this study assessed adult skill level in a recreational team sport setting, collected data regarding the participant’s previous experience in sport and physical activity, gauged the level of sport specific self efficacy, and determined the relationship between skill level, previous experience, and self efficacy. Data sources included systematic observation of skill, survey, and interview. Data analyses included descriptive analysis, univariate analysis of variance, and Spearman rank order correlation. The results indicated that 94.1% of the individuals in this sample were rated as competent or higher in terms of their demonstrated level of skillfulness. The participants were found to be highly confident in their ability to engage in their chosen team sport. The participants had prior experience in team sports as follows: 78.4% engaged in youth sports; 83.3% engaged in high school sports; and 100% reported previous engagement in multiple recreational sport leagues. Skillfulness was positively correlated with self efficacy and previous experience. Participants with more previous sport experience tended to be more confident in their ability and tended to be more skilled. This study suggests that the development of skill may be an important factor that could influence one’s choice to engage in recreational sports as an adult.

Dodge, Thomas. (2006). "*Student retention in athletic training education programs,*"  
Advisor: Dr. Murray Mitchell.

The purpose of this study was to understand why some students leave athletic training education programs (ATEPs) prematurely while others persist. Data were collected through a survey to assess levels of integration (academic, clinical, and social) achieved by students in addition to quantifying anticipatory experiences and motivation. Participants included 94 senior-level athletic training students (seniors), and 31 students who left ATEPs prematurely (major changers). Pearson correlations identified moderate relationships among motivation and clinical integration and motivation and academic integration. Univariate analysis of variance (ANOVA), and discriminant analysis showed that motivation was the strongest predictor of persistence in athletic training education. ANOVAs indicated that clinical integration and academic integration also discriminated between student persistence and attrition. A strong peer-support group surrounded many of the senior-level students. In order to increase student retention, athletic training educators must strive to keep students motivated. This can be accomplished by helping students to gain confidence both in the clinical site and in the classroom. The formation of learning communities among athletic training students should also be stressed to help enhance integration into the ATEP. Future research should extend to larger samples of both seniors and major changers, and might utilize more objective measurements of learning, achievement, and/or clinical experiences. Interventions that aim to enhance student motivation and integration should also be tested.

Gardiner, Alison. (2006). *“Attractors to and facilitators for athletic training and the high school setting,”* Advisor: Dr. Murray Mitchell.

The purpose of this study was to determine 1) the most influential attractors to and facilitators for the athletic training profession, and 2) if attractors to and facilitators for athletic training are the same or different from attractors to and facilitators for the high school setting. Participants included 92 high school ATCs in South Carolina who completed a 33-item survey. Results revealed that participants were attracted to both the athletic training profession and the high school setting to provide a health care service to society, work with others, and be a part of a team. The same individuals were influential for participants' decisions to enter the athletic training profession and the high school setting - college ATC, program director, mother, and father. Irrelevant to becoming an ATC or to working in high schools were female high school ATCs, other relatives, and female/male guardians.

Krist, Kyrstin. (2006). *“Socialization of black and white high school football players in the southeastern United States,”* Advisor: Dr. Karen French

Over one million high school boys participate in high school football. More research is needed to understand the socialization of high school football players and their academic and athletic aspirations after high school. The current study examined 201 Black and 43 White high school football players from 5 Southeastern states.

All participants completed a survey designed to elicit information regarding motives to participate in football, graduate from high school, attend college, and confidence to play at the college and professional levels. Questions were designed to determine the degree of influence of specific socializing agents. Two different data analyses were conducted for the current study. Descriptive statistics were calculated on the demographic background questions, participation rates, and all other questions. Separate 2 (race) x 2 (SES) MANOVA's were conducted to determine differences in motives to participate in football, graduate from high school, attend college, and confidence in ability to play football at the collegiate or professional level. The alpha level was set conservatively at  $p < .01$  due to the number of tests conducted. Univariate ANOVA's were conducted to follow up significant results.

Many of the motives for participation were similar to motives commonly reported in the literature. There were several racial differences that emerged. For Black football players, the mother was the most important person influencing player's decisions to participate, graduate from high school, and aspire to attend college. Black athletes differed from White athletes regarding motives to participate in football, including pleasing their parents, gaining upward mobility through sport, and staying out of trouble. Black high school players participated at almost double the rate of the White players both community leagues and at the school level prior to high school. The confidence of the Black athletes to participate in football at the various levels (NAIA, Junior College, D3, D2, D1, NFL) only decreased slightly as the level of competition increased; whereas, the confidence of the White athletes decrease as the level of competition increased. The confidence reported by the Black football players to play in the NFL was significantly higher than reported by the White athletes.

Fox, Bryan D. (2007). “ *A new direction in athletic imagery interventions: The relationship between imagery direction, anxiety, and motor performance,*”  
Advisor: Dr. Eva V. Monsma.

Mental imagery is one of the most common psychological skills employed by athletes. With the development of the Sport Imagery Questionnaire (SIQ, Hall, Mack, Paivio, & Hausenblas, 1998) and the proposal of the applied model of imagery use in sport (Martin, Moritz, & Hall, 1999) a large body of literature has been accumulated. However, the results have been inconsistent. This is particularly true with regard to the relationship between imagery use and psychological constructs such as anxiety and confidence. Imagery direction is one possible explanation for these inconsistencies. Initially, imagery direction focused on the positive or negative outcomes contained in the content of an image (Powell, 1979, Woolfolk, Parrish, & Murphy, 1985). More recently, Short et al. (2002) proposed the notion of conceptualizing imagery direction in terms of facilitation and debilitation of performance similar to that found in the anxiety literature. The difference being that the content was not the key element, but the interpreted meaning of an image by an individual.

The current research was conceptualized as a two-part study. Experiment one involved the assessment of the validity of the directional extension of the SIQ. This was accomplished through a comparison with the similarly extended construct of anxiety. In experiment 2 the measurement and conceptual extensions developed in study 1 was applied to test the effectiveness of an imagery intervention aimed at regulating arousal levels and enhancing performance of a motor task.

Results of experiment 1 found support for previous studies that showed that each of the imagery types contained in the SIQ were used for multiple functions. Relationships between imagery frequency and symptoms of anxiety were found to be opposite of those proposed in the applied model of imagery use (Martin et al., 1999). However, when paired with imagery direction, facilitative MGA resulted in the lowest reported somatic anxiety, while debilitating MGA imagery resulted in the highest reported somatic anxiety.

Results of experiment 2 were non-significant, but visual inspection of the performance trend supported the hypothesized predictions. Those screened into the facilitative group had higher mean performance scores on two of three intervention trial blocks than the control condition, while those screened into the debilitating group had lower mean performance scores across all three trial blocks than the control group. Recommendations for the development of effective imagery interventions are presented.

Ma, Man Sze, (2007). “*A cross-cultural study: The effects of goal orientations and perceived motivational climates in college physical activity classes,*”  
Advisor: Dr. Eva V. Monsma.

The purpose of the present study was to evaluate the generalizability of achievement goal theory in a non-western population. First, the existence of achievement-related antecedents and outcomes in a sample of American and Chinese college students was assessed through the confirmatory factor analysis (CFA). Second, a hypothesized model was proposed and tested in voluntary physical activity classes. Data from the American and Hong Kong Chinese samples were compared in how well they would fit the proposed model. Lastly, cultural variation in participants' background and motives for taking the activity class were compared post hoc.

A total of 627 college students (318 Americans and 309 Chinese) participated in this study. All model constructs were confirmed with slight modifications to mastery and performance climates. Results showed that the task constructs (task-orientation and mastery climate) had positive influences on enjoyment and perceived competence, but were negatively related to boredom across cultural groups. Cultural variations were shown in the role of affective outcomes and perceived competence in affecting students' motivational process and exercise intentions. The motives for taking these voluntary activity classes also differed in across samples. The present study reveals the role of culture that underlies the motivation mechanisms in voluntary physical activity contexts. Also, this study extends the prediction of physical activity intention from goal orientation and motivational climate to college students in both American and Chinese populations.

Goodman, Ashley. (2007). *“Retention and attrition factors of female certified athletic trainers in the national collegiate athletic association division-I football bowl subdivision setting,”* Advisor: Dr. Jim Mensch.

The purpose of this study was to gain insight and understanding into the factors and circumstances affecting a female certified athletic trainer's (AT's) decision to persist at, or leave the National Collegiate Athletic Association Division-I Football Bowl Subdivision (NCAA D-I FBS) setting. Data for this qualitative study were collected via semi-structured interviews and analyzed via a grounded theory approach. Participants included 23 females who were current full-time ATs (n=12), or former full-time ATs (n=11) at institutions within the Southeastern Conference. Results revealed the decision to persist involved four main factors: 1) enjoyment of job aspects/fitting the NCAA D-I mold, 2) kinship responsibility, 3) social support, and 4) increased autonomy. The decision to leave the setting included three main factors: 1) life-balance issues, 2) role conflict/role overload, and 3) kinship responsibility. The participants' experiences also reflected well on a Causal Model of Turnover which depicts determinants of voluntary turnover. When addressing retention/attrition of female AT's from the NCAA D-I FBS setting, the following characteristics should be considered: 1) an understanding of certain aspects of the athletic training profession, 2) the social support paradigm relative to the AT's position, and 3) attributes of the individual.

Heidorn, Brent. (2007). *“The effectiveness of an outside of school physical activity requirement for high school students,”* Advisor: Dr. Judith Rink.

The purpose of this study was to describe the effectiveness of an outside of school physical activity requirement for high school students (PI-3). More specifically the purpose was to 1) describe what strategies effective teachers in PI-3 implement to obtain high rates of student compliance; 2) describe perceived facilitators and inhibitors (barriers) for participation in outside physical activity for PI-3; 3) describe the nature of student participation and the level of student compliance; and 3) examine teacher and student perspectives for a requirement for participation in outside physical activity. Data were obtained from the following sources: 1) a survey provided to physical education teachers who submitted data on PI-3; 2) the South Carolina Physical Education Assessment Program (SCPEAP) database of Performance Indicator Three; 3) paperwork submitted by students and teachers supporting the outside activity requirements; 4) interviews conducted among physical education teachers with high levels of student compliance; and 5) interviews conducted among high school students taught by teachers with high compliant students.

Conclusions from the student perceptions indicted that: 1) students mostly enjoyed the requirement; 2) most students were honest and participated in the activities they said they did; 3) the majority of students chose fitness activities to complete the requirement; and 4) students confirmed the strategies used by their teachers to promote physical activity. Conclusions from the teacher perceptions indicated that: 1) teachers perceived that PI-3 was having an impact on students; 2) PI-3 is necessary for students in physical education; and 3) most students were honest when completing PI-3 forms. This study also demonstrated that effective teachers held students accountable for the requirement, gave students a choice regarding the activities they could use for their outside activity, and addressed the requirements in a unit that would best work for their program. In addition, teachers were enthusiastic when promoting physical activity, emphasized health and the five health-related fitness components, maintained consistent contact with parents, and assisted students in finding time to be physically active.

Physical education teachers who recognize the strategies, barriers, and perceptions of effective teachers in a student requirement to participate in physical activity outside of physical education class may assist other teachers in becoming more successful at promoting physical activity.

Vall, Emily. (2007). *“Relationships between teacher expectations of student ability and best practice teaching,”* Advisor: Dr. Judith Rink.

Teacher perceptions and expectations can greatly affect the way teachers teach and treat students. This study measures the level of expectations Title I elementary physical education teachers have for their students in three learning domains. The Class Expectancy/Ability Questionnaire was administered to 22 participants. The teachers with the highest and lowest scores were then placed in either a high expectation group or low expectation group. Participants then taught two classes while the researcher videotaped their teaching in order to systematically measure interaction patterns, levels of direct and indirect teaching, levels of student choice in content and managerial tasks, and the level of personal attention and cultural relevance throughout lesson(s). A modified version of the Cheffers Adaptation of Flanders Interaction Analysis system and a modified version of Rink’s (1969) choice instrument (renamed to the Choice Level Observation Tool) were used. Most teachers actually had high expectations for their students (above the “average” rating). Affective domain expectation results were rated lowest among both high and low expectation teachers. Although most of the teachers taught in a direct manner, there were differences in choice levels given to students, and in the amount of personal attention high and low expectation groups gave to their students. High expectation teachers offered more choice among tasks, and also communicated more managerial based tasks than low expectation teachers did. Personal attention was seen more with high expectation teachers, and cultural relevance was seen more with high expectation teachers, and cultural relevance was seen very little in both groups. High and low expectation groups had very similar levels of direct and indirect teaching.

Phillips, Amber (2007). *“Learning to teach: Changes in teaching skills and decision making processes related to the content development of preservice teachers across two methods courses and field experiences,”* Advisor: Dr. Judith Rink

This study described the changes in planning and instructional skills including decision-making processes of preservice teachers across two methods courses and field experiences. The study used the following quantitative and qualitative data collection techniques and sources: (1) evaluation of lesson plans using standardized scoring criteria, (2) systematic observation of teaching lessons using videotape, and (3) stimulated recall interviews with participants using audio and videotape. Repeated Measures ANOVAs were used to analyze changes across time in the lesson plan and teaching evaluations. The dependent variables were the total and individual item scores for the lesson plan, teaching evaluations, and Qualitative Measures of Teaching Performance Scale (QMTPS). Time was the independent variable. Descriptive statistics were also calculated. Data were analyzed five times across the two methods courses and field experiences. An alpha level of .05 was used for all inferential statistics. Qualitative data were analyzed using constant comparison and analytic induction. Group analyses by attrition, degree, placement, and content area being taught were conducted to describe any variation in scores. The results of the analyses revealed a steady increase in overall lesson plan, QMTPS, and teaching evaluation scores across time. Different patterns of development were discovered for specific planning and teaching skills. Participants' task presentations were characterized as effective by the end of the experience (Gusthart, Kelly, & Graham, 1997). Qualitative shifts in decision-making and thought processes from less to more sophisticated patterns were also observed and were characteristic of experienced teachers by the end of the experience. Group differences were also discovered by attrition, degree, placement, and content area taught. These differences were mostly in favor of participants who (a) continued in the program versus those who did not, (b) were seeking a Master's of Arts in Teaching versus a Bachelor of Science degree, (c) were placed at a site with an extra university supervisor, and (d) taught educational gymnastics at later times in the semester. Participants' scores seemed to be influenced by what they were held accountable for on their evaluations, changes in context during the field experiences, and gaining experience (among other things).

Welch, Mindy. (2008). *“A Phenomenological study of flow in postsecondary students participating in two racquet sports,”* Advisor: Dr. Lynda Nilges-Charles

This study investigates participants' subjective knowledge of physical activity using phenomenology and Flow Theory as theoretical frameworks. Participants were college students (N=159) who voluntarily played racquetball or tennis in the university setting. Participants completed the Event Experience Scale (FSS-2), a post-event measurement of a flow state (Jackson & Eklund, 2004). Quantitative analysis (mean, standard deviation, percentages, ANOVA) of a flow state conceptualized by ten flow dimensions (Csikszentmihayli, 1990) was conducted across gender, skill, and sport.

Shearin, Patrice. (2008). *“A feminist investigation of perceived confidence and competence of sixth grade girls as they move from a gender integrated to a gender-segregated physical education class,”* Advisor: Dr. Lynda Nilges-Charles.

The purpose of this study was to investigate sixth grade girls' perceptions of confidence and competence as they moved from a gender-integrated to a gender-segregated physical education class. This study utilized liberal and radical feminist theory as dual frameworks to study the influence of a gender-segregated physical education class on sixth grade girls' perceived confidence and competence. The first research question asked, “What influence does a gender-segregated physical education class have on sixth grade females' perceived competence and confidence as they move from gender-integrated physical education to gender-segregated sixth grade physical education?” Interviews, a questionnaire, non-participant observation, and field notes were used to collect data in two sixth grade gender-segregated classes (n= 30 students) and one sixth grade gender-integrated class (n=12 students) in a middle school physical education program in the South. Data were analyzed using an inductive process. Data analysis resulted in three themes which encompass the personal, social, and physical impact of girl's participation in gender-segregated physical education and (2) girls' confidence and competence in a gender-segregated environment. A second purpose of this study was to determine how the physical education specialist planned for and carried out instruction in a gender-segregated environment. Results suggest that the initial curriculum planning of the physical education specialist was not different for the gender-segregated class when compared to the gender-integrated class. It is speculated that this is due to the lack of training the physical education specialist received relative to teaching gender-segregated physical education. It is concluded that (1) a gender-segregated learning environment has a positive impact on how sixth grade girls perceive their confidence and competence, and (2) middle school girls recognize the patriarchal influence of males in the physical education environment.

Strainer, James A. (Skip). (2009). *“Teacher education faculty perceptions and support of a state assessment program,”* Advisor: Dr. Murray Mitchell.

Since 1989 the State of South Carolina has been engaged in standards-based curriculum reform in physical education (South Carolina State Department of Education, 1989, 2000). *ACT 102, The Students Health and Fitness Act of 2005* (South Carolina General Assembly, 2005) mandated assessment of physical education standards in public schools. The purpose of this study was to describe the awareness and perceptions of physical education teacher education (PETE) faculty towards South Carolina Physical Education Assessment Program (SCPEAP). In particular, attention was directed to PETE faculty who instruct teaching methods classes and the extent to which SCPEAP content and supporting experiences are included in teaching methods classes.

The study was framed by theories of occupational socialization (Lawson, 1983; Lortie, 1975) and simultaneous renewal (Goodlad, 1984, 1994). The primary data source was comprised of semi-structured formal interviews of PETE faculty who teach physical education methods classes. The secondary data sources were document analysis of PETE program class syllabi, instructional and program materials, and validation interviews of PETE students in their last year of a teacher education program.

Participants' interviews and program materials were coded using constant comparison then sorted by category (Spradley, 1980). This data were organized using an Excel file and unique categories were reported as either negative or positive attributes, high/low awareness, and favorable/unfavorable perceptions. Carnegie Classification, number of teachers produced, and institutional demographics were variables analyzed by awareness, perceptions, and attribution categories. A second researcher read the transcripts of the coded interviews to facilitate peer debriefing of the initial coding, resulting in final categories used in the analysis (Thomas, Nelson & Silverman 2005). Most of PETE programs studied made changes due to SCPEAP (67%) which provides some evidence of support for SCPEAP specifically, and assessment in general. There are four conclusions that appear warranted, based on the findings of this study. First, the degree of PETE methods instructor support for SCPEAP varied by level of experience, awareness, and job demands. Second, faculty across the state had uneven understanding of the reform effort. Third, perceptions of the SCPEAP initiative appeared to be favorable—whether informed about the particulars of the reform effort or not. Exactly why this might be true is unclear. Fourth, institutions with high liberal arts requirements on degree programs appear to have a negative correlation with methods of teaching requirements.

Gardin, Frederick. (2009). *“Knowledge representation and self-regulatory experiences of certified expert and novice athletic trainers in college and university settings,”* Co-Advisors: Dr. Jim Mensch & Dr. Karen French.

The purpose of this study was to describe how male, collegiate, certified athletic trainers (AT's) represent knowledge during 5 injury evaluation scenarios. A second purpose of the study was to identify what self-regulatory behaviors participants engaged in to improve or maintain their skills. Knowledge representation was studied as cue selection and knowledge organization while completing the 5 evaluation scenarios during a situational interview. Demographic and self-regulatory behavior data was collected via a questionnaire. During the situational interview, participants responded to 5 injury scenarios via a think-aloud technique. Interviews were audio-recorded, transcribed, and member-checked for accuracy. Participants were expert AT's (n = 10) with jobs titles of Director of AT, Head AT, Assistant/Associate AT with a mean age of 41.9,  $\sigma = 9.78$  years and 17.9,  $\sigma = 10.24$  years of experience. The novice AT participants (n = 10) had titles of Graduate Assistant, Intern AT, and Assistant AT with a mean age of 24,  $\sigma = 1.94$  years and 1.3,  $\sigma = .48$  years of experience. Differences in groups included strengths with specific injuries and situations. Differences existed in the environmental focus, self-regulatory experiences and goals, and sources of feedback during the acquisition of evaluation domain knowledge. Significant differences (alpha = .05) in cue selection were present for only situation 2 (i.e. upper extremity injury) for critical cue selection  $F = (1,18) = 4.88$ ,  $p = .04$ , and non-relevant cue selection  $F = (1,18) = 8.19$ ,  $p = .01$ . Qualitative analysis of knowledge organization yielded Expert and novice AT's both used production rules to guide their protocols. Additional analysis determined that expert and novice AT's both used causal and conditional relationships to link propositions in their protocols. Analysis of non-repetitions statements revealed experts represented knowledge contains fewer situation appraisal concepts, more history concepts, and more prediction concepts. The conclusions of this study may inform the study of expertise in healthcare and how experience in a domain may shape ones knowledgebase. Subsequently these findings may contribute to interventions used to improve novice AT's evaluation domain knowledge.