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University graduation requirements for physical education courses termed Basic Instruction Courses (BIC) are at an all-time low. This is contradictory to university research support for the importance of lifetime physical activity (PA). BICs should be examined to identify best instructional practices to influence future PA. The purpose of this study was to examine instructional best practices BIC instructors used to increase students' intentions for future PA.

Four Future Practice categories were generated from a pilot study (Social interactions, community, enjoyment, persuasion/role modeling). This study examined the use of these practices in a beginner level soccer course. A beginning volleyball BIC, in which students did not receive the Future Practices program, served as a comparison condition. Data sources for this research were The Physical Activity Intention Adherence Questionnaire (PAIAQ), the Basic Instruction Course Self-Survey (BICSS), student interviews, lesson observations, and instructor journals and checklists. The PAIAQ and BICSS were analyzed descriptively, while the qualitative data was analyzed using open and axial coding to identify themes across data sources.

Results displayed no statistically significant changes between classes from pre-tests (Wilks λ=.85, F=1.58, p=.20 with equal variance assumed: Box's M=9.50, p=59). However, the BICs showed more significant change in the PAIAQ and relatedness measures. The Future Practice categories' effectiveness was described from qualitative analysis. The themes of gameplay, health/fitness, and feeling comfortable emerged as

characteristics of instruction that led to students' future PA intentions. The most influential instructional Future Practices were the Social Interaction and Outside Class Involvement practices as they catered to student comfort in future PA. The instructor's expertise in sequencing instructional tasks to develop students' sport skills and confidence also appeared to influence students' future PA intentions. Based on the findings of this research, instructional practices addressing game situations, health benefits, and community resources appear to be influential in university students' future exercise intentions.

INFLUENCING A PHYSICALLY ACTIVE LIFESTYLE THROUGH INSTRUCTIONAL PRACTICES IN UNIVERSITY BASIC INSTRUCTION COURSES

by

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CHAPTER I

INTRODUCTION

The importance of engaging in a physically active lifestyle has never been more important than it is today. Obesity is one of the more pressing issues in American society as nearly two-thirds of the population can be categorized as overweight or obese (Brownell, 2012). In 2006, 66% of adults were overweight or obese and 16% of children and adolescents were overweight. An additional 34% of youth were at risk or overweight (Wang & Beydoun, 2007). Along with this trend, young people are showing high rates of obesity. Because of the alarming rate of annual obesity increases over the previous three decades, it has been estimated that by 2015, 75% of adults over age 20 will be overweight or obese, and 41% will be obese (Wang & Beydoun, 2007). More recent national data on obesity prevalence among U.S. adults, adolescents, and children show that almost 36% of adults (age 20 or older) and almost 17% of children and adolescents were obese in 2009–2010 (Ogden, Carroll, Kit & Flegal, 2012). Of adults aged 20-39, 32.6% were obese. Adults 40-59 had 36.6% obesity and adults 60 and older were 39.7% obese (Ogden et al., 2012). These statistics display the obesity issues in the United States and specifically with adults aged 20 or older. Because the percentages of overweight and obese individuals increase as adults get older, the importance of achieving or maintaining a healthy body can be a life-long process.

One of the most accepted ways to battle obesity may be to eat a healthy diet and be physically active. A physically active lifestyle has been shown not only to help reduce or maintain weight but also to have other benefits, such as stress relief, improved cognition, decreased disease risk, and promotion of social skills (Berger, 1996; Warburton, Nicol, & Bredin, 2006).

Structured physical education is a possible contributor to the overall "solution" to America's obesity epidemic. K-12 Physical education (PE) is an environment where students can learn and develop while being physically active in an educational setting. High quality PE in schools can help reduce childhood and youth obesity through teaching skill competence, fitness, and health related concepts that students learn and then are able to effectively apply into their own life outside of school or in their lives after their educational experience (Xu, Chepyator-Thomson, & Culp, 2010). Unlike K-12 students, adults usually do not have a structure or obligation to attend physical activity classes.

College or post-secondary education is a tool that many young adults use to propel themselves into their intended career path (Conley, 2007). General education classes, that may include physical activity-oriented courses in the Basic Instruction Program, often are required for students to enhance their overall education. BICs usually are 1-3 credits and require smaller time commitments and more choices of content than degree-required courses offered by the college/university. Most BICs focus on a single sport or fitness activity such as basketball, soccer, weight training, and conditioning (Strand, Egeberg, & Mozumdar, 2010) and often differentiate by ability level. For

example, a college can offer a beginner level volleyball course and an advanced level volleyball course in which students can enroll based on their previous experiences or interests.

Purpose

The purpose of this study was to examine the extent to which university sport BICs increase students' likelihood and intention to be physically active after graduation. The study focused on two sport BICs at a large public university in the southeastern United States. More specifically, the instructor of these BICs implemented specific instructional practices developed by the researcher representing four categories of "Future Practices." These practices were developed as a result of a pilot study conducted in BICs. Data were collected to determine the effectiveness of these instructional practices to influence students' future intentions to exercise.

Significance

This study contributed useful information to the field of Kinesiology in general and to the implementation of future-oriented instructional strategies in BICs. The primary goals of public health in the U.S. are to increase individuals' lifespan and the quality of those added years by encouraging the development of healthier lifestyles (Corbin, Welk, Corbin, & Welk, 2006). Kim and Lee (2010) stress that more research is needed examining university BICs to determine how they impact lifelong physical activity. There seems to be an absence of research exploring university BICs and what occurs after students graduate. The current study examined specific instructional practices that a BIC

instructor implemented in a sport-oriented BIC to enhance students' intentions to be physically active after graduation. The ability to prepare BIC instructors to teach using proven instructional practices that increase future physical activity intention will strengthen BIC instruction and enhance wellness benefits for students. This study also included an instructor training manual to enhance BIC instructors' understanding of the "Future Practices" program and to increase their ability to implement the practices effectively.

The timeframe for this study also displayed potential effectiveness and power of the proposed practices. The Future Practices is a brief, flexible program that BIC instructors can implement. With students' physical activity declining from high school to college (Nelson, Gortmaker, Subramanian, & Wechsler, 2007) and current obesity trends, any program or course design that influences lifelong physical activity has great value for students' well-being. Green (2004) emphasizes the relevance of lifelong physical activity and the emphasis on individual or community sports to young adults. This research promoted sport as a viable option and resource for future physical activity in addition to individual/fitness BICs and other exercise interventions. The results of this study provide the field of kinesiology with insight on BICs and how instructors can tailor their planning and instruction toward lifelong physical activity for their students.

Assumptions

This research examined instructional practices and the extent to which they impacted students' intentions for future physical activity after graduation. An assumption

of this research was that the instructor used effective pedagogy instruction. In other words, the instructor's class management, feedback, transitions, etc. were effective in enhancing student engagement and learning in each BIC. I also assumed that the BIC instructor had adequate course content knowledge and an effective topic schedule. Another assumption was that the instructor did not emphasize the importance, opportunities, or benefits of physical activity after graduation as part of course instruction. Additionally, I assumed that students initially enrolled in the BICs with little or no intentions for future exercise post graduation. Students may have lacked a set future exercise plan or awareness of the role of activity later in life.

Limitations

There are several limitations for this thesis project. The researcher used all available resources, but had to adhere to university course times and facilities. Additionally, there were a number of limitations to this type of research, including student motivation and lesson availability. For example, students may have been required to enroll in the sport BICs instead of choice which may influence their motivation if they have to complete the course. Also, increasing the number of lessons where instruction was implemented may have affected the impact of teaching methods on future intentions. Students may be motivated by factors other than instructional practices implemented during BICs, influencing their future intentions of physical activity. Student behaviors outside of class time may affect the degree to which their own perception and future intentions could change. It is important to note that college students tend to choose

classes they already feel competent in based on prior experiences (Shekitka, 2002). Some students may feel they are competent in soccer/volleyball regardless of their actual performance level. This may have influenced the students' opinion of class value as it relates to lifelong physical activity. Therefore, to influence students' future intentions, instructional practices must address perceived competence in addition to students' actual skill competence and game understanding/ performance.

Availability of lessons in which the Future Practices Program (FPP) was taught is a possible limitation of this study. There was value in determining if utilizing Future Practices in just a few lessons could be effective in influencing students' future physical activity interventions. Because the majority of students enrolled in most BICs at the university were kinesiology majors, the findings of this research may be limited to this population. However, simply being a kinesiology major does not guarantee future physical activity intentions. Universities across the country may or may not have the same BIC enrollment tendencies and have fewer kinesiology related majors. Both kinesiology and non-kinesiology majors participated in this study.

Another study limitation was that the BIC instructor was one of the instructors used in the researcher's pilot study. She taught volleyball in the pilot study. The fact that she was included in the pilot study may affect the validity of this study in that this was her second time working with the researcher. There were very few BICs available during the timeslots in which the researcher was available to observe and collect data. These included the instructor's volleyball and soccer BICs. Although she was part of the pilot

study, she taught different BICs for the FPP. The pilot study indicated that she did not teach students using the Future Practices in her volleyball course, and students did not report future intentions to exercise. The volleyball course in this research was taught in the same manner in the pilot study. The researcher felt this instructor was trustworthy and representative of BIC instructors across America based on her background as a graduate student without formal training as a physical educator.

Definition of Terms

Adherence: Maintaining an exercise related regimen or intervention for a prolonged period of time following the initial adoption phase (Dishman, 1991). Adherence addresses an individual's strength of commitment to performing exercise.

Basic Instruction Program: A series of 1-2 credit hour physical activity or sport related courses offered by a university, department, or college (Sage, 1984).

Outside Course Involvement: Typically off-campus physical activity programs and facilities offered by the local government within close proximity of the university. The local governments' size and tax base can influence the range of, access to, and technology availability within exercise facilities and parks that in turn can influence physical activity behaviors (Buckworth, 2001). This is a Future Practice category where students utilize resources in the community to engage in physical activity.

Enjoyment: A positive perception of a physical activity experience as result of instructional activities, tasks, or games. Perceptions of enjoyment often increase students'

motivation for continued participation (Carroll & Loumidis, 2001). This is a Future Practice Category examined in this thesis project.

Future Practices: The proposed instructional practices designed to increase students' awareness of and interest in physical activity opportunities after graduation. The four instructional categories were derived from a pilot study conducted in two university BICs. The four future practice categories examined in this research are social interaction, outside class involvement, enjoyment, and persuasion/role modeling.

Future Practices Checklist: Instrument created by the researcher for university BIC instructors to plan and record which future practices they use in their lessons.

Future Practices Training Manual: A training guide designed to familiarize the intervention group BIC instructors with the Future Practices Program.

Instructor Journal: A data source used to examine intervention group BIC instructors' perceptions and opinions of the Future Practices program

Instructional Practices: Teaching strategies implemented by the instructor as part of university basic instruction or K-12 physical education courses.

Intentions: Individual's mental planning to attempt behaviors in the future. They control and predict actions (Ajzen, 1985).

PAIAQ: Physical Activity Intention Adherence Questionnaire. Developed from items in the Physical Activity Adherence Questionnaire (PAAQ) (Corbin, Welk, Lindsey, & Corbin, 2003). This 16-item questionnaire uses a 5-point Likert scale to measure students' future intentions to exercise and likelihood of exercise adherence.

Persuasion/Role Modeling: The process used to convince individuals to view a concept(s) differently or in more detail (Alexander, Fives, Buehl, & Mulhern, 2002). Persuasion can be positive or negative; the extent of impact depends on the issue at hand and the credibility of the arguments, evidence or examples. This category of the Future Practices program focuses on swaying student perceptions, intentions, and beliefs that they can plan and adhere to exercise in the future.

Physical Activity: Any bodily movement produced by skeletal muscle contractions that increases energy expenditure above a basal level. Generally refers to movement that enhances health (Centers for Disease Control and Prevention [CDC], 2011)

Physical Education: Academic subject in schools for grades K-12 where students receive formal exercise, fitness, health, and sport related instruction while being physically active (Sallis, McKenzie, Kolody, Lewis, Simon, & Rosengaurd, 1995).

Social Interaction: The support or collaboration among peers in various settings (Deci & Ryan, 2000). This is a Future Practice category for this thesis project. Attention will be given to physical activity settings currently and in the future where relationships and support of others can be achieved

CHAPTER II

REVIEW OF LITERATURE

This chapter will review literature on topics related to university BICs and their influence on students' future intentions for exercise. I begin with a review of motivation theories that can explain students' exercise intentions after graduation followed by a review of the literature associated with physical education BIC perceptions. The chapter concludes with a discussion of questionnaires used to gather data on future intentions and instructional practices in BIC settings that have proven effective for encouraging future physical activity. This chapter provides the framework and basis for the practices and measurements used in this study.

Motivational Theories

This section will describe two motivational theories utilized in this study. Self-Determination Theory (SDT) will be highlighted along with the Theory of Planned Behavior (TPB). Each theory will be described in detail with reference to previous studies, most notably studies that apply to exercise and PE/BIC environments. SDT and TPB are related through the influence of future intentions for exercise. The theories help provide support for proposed instructional practices in BICs that may motivate students' physically active lifestyles.

Self-Determination Theory

Motivation, defined as rationale or drive for behaviors (Deci & Ryan, 1985), is of central concern to humans. Many parents, teachers, coaches, and managers struggle to find effective strategies to motivate those they mentor. Likewise, individuals struggle to find energy, mobilize effort, and persist at the tasks of life and work (Deci & Ryan, 1985). One theory of motivation, Self-Determination Theory (SDT), highlights a continuum of motivation influences ranging from extrinsic to intrinsic. The theory assumes that motivation is optimal when three psychosocial needs are met: *autonomy, competence,* and *relatedness*. Autonomy can be defined as one's ownership or choice of actions. Competence can be considered as one's belief they can execute or perform something well. The development of one's social relationships and support can be defined as relatedness.

Deci and Ryan (1985) state that SDT theory focuses on motivation rather than cognition because it addresses the initiation and direction of behavior while organizing cognitive, affective, and behavioral variables. Deci and Ryan (1985) explained:

> Because it has been influenced by the perceived locus of causality construct, our theory also differs from cognitive theories in its assertion that only some, rather than all, intentional behaviors (those with an internal perceived locus of causality) are truly chosen (p. 7).

Perceived locus of causality addresses the reason(s) why individuals behave in a certain manner. SDT allows for some intentional behaviors to be explained in ways other than through choice. Some behaviors could be automated by several factors. An example of

this could be a high school basketball player who attends practice for reasons of earning playing time, enjoyment, collaboration with teammates, familiarity, desire to improve, and fear of consequences from the coaching staff or family. External and internal forces drive decision making.

SDT is a formal theory that defines intrinsic and varied extrinsic sources of motivation. It also includes descriptions of the respective roles of intrinsic and types of extrinsic motivation in cognitive and social development and in individual differences. People often are moved by external factors such as reward systems, grades, evaluations, or other's opinions. This can be termed extrinsic motivation. Yet just as frequently, people are motivated from within by interests, curiosity, care, or abiding values. Although these intrinsic motivations are not necessarily externally rewarded or supported, nonetheless they can sustain passions, creativity, and efforts (Deci & Ryan, 1985). The interplay between the extrinsic forces acting on persons and the intrinsic motives and needs inherent in human nature is the territory of SDT.

Another crucial factor central to SDT is how social and cultural factors facilitate or undermine people's sense of initiative and volition (Ryan & Deci, 2000). These are in addition to a person's well-being and quality of life. Conditions supporting the individual's experience of the three needs (autonomy, competence, and relatedness) foster the highest quality forms of motivation and engagement for activities, including enhanced performance, persistence, and creativity (Deci & Ryan, 2000). SDT proposes that the degree to which any of these three psychological needs is unsupported will hinder

motivation. The social and cultural factors impacting an individual must be considered when addressing their intrinsic or extrinsic motives. The SDT framework thus has both broad and behavior-specific implications for understanding practices and structures that enhance versus diminish need satisfaction and the full functioning that follows from it.

SDT Related to PE/BICs and Physical Activity

SDT provides theoretically sound insight into the many reasons why individuals adopt and maintain consistent exercise patterns and other health behaviors (Carron et al., 1996). Because individuals need to stay or become physically active, SDT is valuable in that it explains the adherence or adoption of a physically active lifestyle. The SDT model is categorized by circumstances of internal factors (feeling of accomplishment, physique, etc.) and those of external factors (recognition from a peer, trophy, money, etc.). The dynamic environment within a physical education class often includes some of these internal and external factors. For example an instructor could stress "reaching a personal best" to their students to help them feel a sense of accomplishment. It is crucial to identify intrinsic or extrinsic motives and their influence when addressing intentions for future physical activity.

SDT can explain student motivation in K-12 educational settings. For example, Goudas, Biddle, and Fox (1994) studied students in PE aged 12-14 years. They measured relationships of perceived autonomy, perceived competence, and goal orientations with intrinsic interest across two PE activities. They measured SDT using the Self-Regulation Questionnaire (Ryan & Connell, 1989), post-course interviews, and the Task and Ego

Orientation in Sport Questionnaire (TEOSQ) (Duda, Fox, Biddle, & Armstrong, 1992) for two PE activities. Direct effects on intrinsic interest for both the activities were found for perceived autonomy and task orientation. Perceived competence, however, was positively associated with intrinsic interest for only one of the activities. Given the findings, perceived competence may not be the most predictive indicator of exercise adherence, and more attention should be given to autonomy and task orientation. These relate to SDT in the autonomy of doing something out of regularity and how tasks can be presented with relatedness or perceived value of the task. Instructors can support habitual physical activity through framing tasks catered to student self-regulation. This can possibly influence future physical activity more than improving student's perceived competence.

This study provides insight into how autonomy is likely of most importance, although perceived competence and relatedness still should not be ignored. Autonomy-supportive climates, and to a lesser extent perceptions of competence, positively impact variables that foster self-determined motivation, which positively predicts leisure-time physical activity intentions (Standage, Duda, & Ntoumanis, 2003). Finding the correct degree of each factor will help us understand what it takes for students to self-regulate their exercise behaviors. Understanding the ideal amount of autonomy, relatedness, and competence factors influence on future physical activity can help students regulate their habits in the future because their intentions are affected in multiple ways with an adequate dosage of each factor.

Self-regulation can help people adhere to exercise by regulating themselves to continually exercise. Sniehotta, Scholz, Schwarzer, Fuhrmann, Kiwus, and Voller (2005) concluded that interventions targeting self-regulatory skills such as planning and action control can facilitate intended lifestyle patterns and exercise adherence. SDT also allows for a meaningful analysis of the motivational processes involved in behavioral self-regulation (Silva et al., 2008). It appears that more information is needed from interventions in BICs to fully understand what practices instructors can implement to increase self-regulation along with autonomy and relatedness.

There is a particular need to examine student motivation in university level physical education BICs. Kilpatrick, Hebert, and Bartholomew (2010) examined motives for exercise and sport participation among male and female college students. They highlighted that most research designed to enhance motivation for and adherence to physical activity focuses on exercise behavior and ignores sport participation. They surveyed undergraduate students across seven health and kinesiology courses such as personal health, drugs and society, human sexuality, and personal fitness. The motivation measure indicated that intrinsic motives, such as enjoyment and challenge, were more predicative for sport engagement, whereas exercise engagement was influenced more by extrinsic factors (appearances, weight, stress level, etc.). The researchers concluded that motives for sport participation are more desirable. Hence, improved exercise adherence may be more easily influenced from a sport-based college intervention utilizing intrinsic motives. It is interesting to note that, although courses examined in the Kilpatrick et al.

(2010) study were not sport BICs, students still reported more intrinsic influence for sport participation. While extrinsic motivational factors can improve one's intention for future physical activity, a sport BIC at the university level focusing primarily on intrinsic motives and practices can provide further insight into the role university BICs have on future physical activity. There also may be factors that occur outside of class time, such as the motivation for students enrolling in a course.

Theory of Planned Behavior

The Theory of Planned Behavior (Ajzen, 1985) proposes that one's intentions are the strongest predictor of one's actions. Motivation to act can be related to one's intentions. The Theory of Planned Behavior (TPB) was proposed by Ajzen in 1985 as a means to connect intentions and actions. According to Ajzen (1985), "Actions are controlled by intentions (p. 11)." However, not all intentions are carried out and some are modified to fit certain circumstances. Ajzen examined the relationship between intentions and actions, such as ways in which plans and goals guide behavior and factors that influence changes to intentions. Every action has an underlying reason. Humans take into account the implications of their actions. He deduces that a person's intention to perform or not to perform an action is the immediate determinant of the action. People are expected to act in correlation with their intentions unless unforeseen events or circumstances occur. The focus of this theory is on understanding human behavior, not simply predicting it. Two determinants of intentions are the personal nature of and social influences on the individual. The personal factor addresses one's positive or negative

attitudes toward the behavior. The second determinant of intention considers the perceived social pressures on the individual to perform the action(s). People intend to perform behaviors they view positively and perceive as acceptable or expected from others.

Even when perceptions of an intention are positive, an intention may not be fully completed as action (Ajzen, 1991). This is more likely when individuals predict long-term behaviors, because there is more opportunity for unexpected circumstances to arise. People's intentions can only be expected to predict a person's *attempt* and not necessarily their actual performance. This means that if a measure of intention of behavior fails to predict behavior, then it can be assumed that something caused intention to change after it was assessed. Ajzen (1985) also explained that if the intention is predicted correctly and the behavior is not attained, then it is likely that factors necessary for them to carry out the intention were out of the individual's control.

Intentionality is important when considering exercise adherence (Marshall & Biddle, 2001). If an individual's intention is measured accurately, then the assumption is that they will complete their intention unless something outside their control arises and acts as a barrier for their exercise plan. An example of this could be when a person intends to play golf on the upcoming weekend but there is severe inclement weather and all golf courses and driving ranges are closed. Unless the individual could play indoors, the weather is out of his/her control and it hindered his/her action to play golf even though their intentions were strong. Ajzen (1985) states:

> Behavioral intentions will often be better predictors of attempted behavior. To ensure accurate predictions, we would not only have to assess intentions but also some estimate of the extent to which individuals are apt to exercise control over the behavior in question. (p. 30)

Ajzen (1985) devised an equation that states that the strength of an attempt to perform a behavior interacts with the amount of control the person has to determine the likelihood of the action being carried out. This depends on the amount of perceived control he/she has versus the actual control. Referring to the golfer example, maybe the person does not realize that there are indoor golf facilities available and feels powerless if the weather is poor. Educating that person about the resources available to them to golf or exercise would increase perceived control. However, confidence can play a role in generating a strong intention. With the golfer, they may be aware of an array of resources available and have great weather but if they do not golf much or are not familiar with the new course or protocols they may not carry out the action because they have not had much experience or success yet. The predictors of intention, such as confidence and social influences must also be considered when connecting intention to action (Ajzen, 1985).

When devising an exercise adherence intervention it is important to anticipate and communicate possible future barriers and provide resources or information to overcome those barriers. Ultimately, people will attempt to perform a behavior if they perceive the outcome success of the behavior outweighs the outcome failure implications. The perceived outcome success is affected by the belief he/she could actually achieve success

and the same is true with failure (Ajzen, 1985). Thus, although the intended behavior of future exercise must be viewed as having positive outcomes with the achievement of the behavior, it also must be perceived as feasible. For example, running a marathon in a few weeks could be possible to achieve. However, if a person has not run in a long time, she or he is unlikely to perceive the behavior as possible. Conversely, an individual can plan to run a marathon in a year and start training for the race. The individual can be educated on quality training principles and the barriers that may arise. Although the subjective probabilities of success and control are not perfect; the TPB should be considered (Ajzen, 1985). Follow-up or future measures of actions are not always feasible to obtain. The TPB supports the notion that one's intentions are the strongest predictor of one's actions from the theory's understanding of future behavior influences.

Integrating Self-Determination Theory and the Theory of Planned Behavior

Motivation and intention interact to impact actual behavior. Proposed intention summarizes a person's general attitudes toward not only the behavior, but also peer pressure and their competence in carrying out the behavior. This comes from the perceived resources and facilities available to the individual. If the outcome effect of the behavior is perceived positively, the intention is stronger (Hagger, Chatzisarantis, Culverhouse, & Biddle, 2003). Intentions may become stronger if a student in PE feels their classmates support and value a behavior outcome which relates to the SDT need of relatedness. The motivation associated with social gains can be very influential, such as a student engaging in exercise outside of class to meet new people. Similarly, a student

may be more aware of resources available at their school to exercise from a tour or PE class and their intention to exercise may increase because they feel they are capable of utilizing those resources.

Clearly, many aspects of SDT and TPB are related. A person's self-evaluation of their capability to perform the behavior depends on his/her support and perceived competence in the behavior. Perceived autonomy support affects leisure-time physical activity directly and indirectly through a motivational sequence involving internal perceived locus of causality, attitudes, perceived behavioral control, and intentions (Hagger et al., 2003). Perceived autonomy support is the quality of social constructs in influencing and maintaining a behavior from friends, family, peers, etc. Autonomy support has been proven to increase leisure time physical activity from several factors. When measuring intentions of college-aged students the main format of their exercise will arise from leisure time physical activity. Marshall and Biddle's (2001) meta-analysis of behavior change found that behavior change is dynamic and incremental in that it is not "all or nothing." The stages are characterized by a temporal dimension of "readiness" to change (Marshall & Biddle, 2001). Individuals need to believe they can change a behavior before they can actually do it by adopting exercise as part of their lifestyle (adherence).

Hagger and Chatzisarantis (2009) conducted a meta-analysis of studies integrating SDT and TPB in health contexts. They found significant correlations among perceived autonomy support and self-determined motives from SDT and attitude, subjective norms,

behavioral control, intention, and health-behavior constructs from TPB. They concluded that self-determined motivation has a strong influence on proximal predictors of intention and attitudes. “Theoretically, this lends support to SDT in that self-determined motives towards health behavior are related to individuals reporting attitudes and perceptions of control that are consistent with those self-determined motives” (Hagger & Chatzisarantis, 2009, p. 295). It appears that self-determined motivation proceeds or comes into play at a similar time as intentions are being created by an individual. Autonomy support must be considered along with behavioral control and attitudes when analyzing behavior change or increasing intentions.

Theory of Planned Behavior Related to BICs

Individuals develop many intended actions. Several studies (Netemeyer, Burton, Johnston 1990; Schifter & Ajzen 1985) have found that the TPB would best predict health-related behavioral intention (Ajzen, 1991). PE has the opportunity to educate students about the benefits of exercise or sport participation (increase outcome value), barriers to exercise (increased perceived control), resources for increased accessibility of exercise, and include social constructs. Intentions can change over time. The longer the time period between intention and action, the more likely unexpected events can arise and affect intentions (Ajzen, 1985).

It is important to encourage college students to consider complications and changes that could arise to impact their physical activity choices and opportunities in the future. If students can proactively think about and anticipate events that may occur after

graduation, they may be able to adapt future exercise plans to anticipate future changes. If they initiate future thoughts while in college, students' may develop more resilient attitudes against certain events post-graduation that may hinder physical activity. According to SDT and TPB, their perceived control will increase the likelihood of actual exercise from intention in the future.

Individuals' overt statements of intention are the strongest predictor of behavior (Ajzen, 1991). One way to increase students' resilience and commitment to future exercise is to talk with them within the context of the BIC and encourage them to consider and predict future exercise opportunities and anticipated barriers. Interviews with students can provide opportunities for them to envision and express future intentions to exercise and participate in sport behavior. Their statements of future physical activity intention may predict their future behaviors and intentions.

Perceptions of Physical Education and Activity

Although many people agree that PE has value in K-12 public schools, it is not widely recognized as being as important as academic subjects like mathematics and reading. PE often is viewed by public school administrators as a reduction in instructional time for the "core" subjects (Sallis et al. 1995). The general perception of PE is that it is not as important to the long-term success of people in their career or daily activities as academic knowledge. This perception could be true for college students as well who usually have the viewpoint that they completed PE requirements in high school and, therefore, do not seek additional BIC experiences in college.

This reluctance to participate in BICs can also be extended to after graduation physical activity. Hildebrand and Johnson (2001) examined university students' likelihood to continue in physical activity after completion of college BICs. They categorized students based on whether they perceived their high school PE experience positively or negatively. They found that students who perceived their experience poorly were less likely to continue in physical activity. Reversing or limiting negative perceptions of PE can help increase students' likelihood in participating in physical activity.

In recent years public health officials have recognized the role of school PE in public health initiatives to promote child and adult health (Pate et al., 1995). Students' perceptions can be shaped by many different influences, including different classroom settings, teaching styles, personal experiences, diversity, course content, and environmental factors. Encouraging students to value PE/physical activity can aid in America's battle with obesity. PE/BIC programs can promote active lifestyles that lead to positive health changes among children, youth, and young adult populations (Xu et al., 2010).

College BICs provide opportunities for students to participate in moderate-to-vigorous physical activity and afford a structured time each week dedicated to exercise. These courses can be useful tools in helping university students engage in physical activity and increase their knowledge of healthy lifestyle practices that may help them improve or maintain their overall health. Tjeersma, Rink, and Graham (1996) examined

college students' perceptions, attitudes, and beliefs before, during, and after teaching a six week badminton unit. They found that students generally enjoyed playing badminton within the BIC format. Students reported that participating in sports, in general, was important to them. However, they noted that specifically playing badminton was *not* important to them. This suggests that, although students value physical activity, the actual activity or sport they engage in may not to be of interest to them. Creating an enjoyable learning environment in college BICs can increase the likelihood of students engaging in exercise later in life (Shekitka, 2002). Colleges also can use BICs as a way to increase students' activity and knowledge about sports and other activities that they can participate in for a lifetime.

University Basic Instruction Courses

Colleges/universities offer students a variety of team and individual sports and fitness activities in BICs. Opportunities to enroll in BICs vary by college. Green (2004) stated BICs should focus on lifetime leisure sports that have fewer barriers for community participation as opposed to competitive performance oriented sport opportunities that become more difficult to access once students graduate. For this reason, individual sports and fitness activities may hold more value because individuals can engage in them more easily after graduation.

Scholars such as Bailey (2005) argue that team sports add value both to university students and graduates. For example, the collegial and collaborative aspects of team sports are valuable for college students because they aid in social development (Bailey,

2005). Team sports support a dynamic environment that encourages individuals to rely on each other for the team's success. When structured appropriately, the social setting afforded by college BICs can influence students' positive perceptions and value of the course (Bennett & Hastie, 1997). Consistent with the demands of most professions, successfully interact skills can facilitate accomplishing group goals or tasks and is a valuable skill for individuals to learn.

The availability of BICs is important for the university environment to foster student interactions and affiliation. Strand, Egeberg, and Mozumdar (2010) examined the prevalence of health-related fitness BICs at 2 year and 4 year institutions in the United States. They found that since 2000, the prevalence of these courses has increased. They also reported that a large portion of health related BICs were offered via the Internet. This reflects the trend that web-based courses have become an important form for delivering instruction at universities using a formal class meeting times and days (Davidson-Shivers, 2009).

Conversely, Cardinal, Sorenson, and Cardinal's (2012) examination of the status of the BIC graduation requirements at American 4-year colleges and universities indicated the opposite. These authors found that, since the 1920s when almost every college student was required to fulfill a BIC requirement, more than half of four-year American colleges and universities have dropped PE requirements for students. Specifically, Cardinal et al. (2012) surveyed 354 randomly selected institutions and concluded that the state of required university basic instruction programs is at an all-time

low. Although there growing support for physical and mental benefits of physical activity, universities are not embracing their own research (Cardinal et al., 2012). This is alarming because research university scholars, themselves, endorse support for physical activity benefits and availability of BICs, yet university requirements and opportunities for students to enroll in BICs are decreasing.

The primary influences that impact students' decisions to enroll in particular BIC are to learn new activities, improve skills, and have fun (Nicole, Sherman, & Ward, 2003). Course factors that appeal to students include course descriptions that seem interesting or provide an opportunity to improve or enjoy oneself. Certainly, BIC enrollment increases when BICs are required for graduation. Bennett (2000) argues that university BICs are considered essentially a grade booster. Students may indeed enroll because they desire an easy course to increase their grade point average. SDT intrinsic and extrinsic motivational factors, such as those listed above, influence students' course selection. Although some students are interested or genuinely strive to improve skills in BICs, others are focused on an easy grade or meeting requirements.

Pearman et al. (1997) examined the effect of requiring completion of a PE and health course on college alumni. They found that alumni who completed one of the required courses were more likely to engage in exercise, viewed exercise more positively, and were less likely to start smoking. They argued that required college PE enhanced alumni's health-related knowledge, attitudes, and behaviors. This highlights the impact a PE course can have on graduates, influencing not only exercise behavior, but also their

knowledge and perception of exercise and health. Whether enrollment in a BIC is required or optional, the benefits of students completing the class are well documented (Bailey, 2005; Pearman et al., 1997).

Boyce, Lehr, and Baumgartner (1986) investigated university students' outcome values for BICs. They identified fitness, skill-performance, and artistic-creative goals as three BIC outcome areas holding value for university students. Students in 27 BICs completed 5-point Likert scale ratings of 15 items reflecting these outcome statements. Student perceptions were compared to the stated benefits and outcomes generated by a selected committee of experts. They concluded that students perceived these outcomes and benefits from BICs and many outcome statements aligned positively with those identified by the expert committee. Students may perceive that BIC outcomes pertain to all three outcome areas (Boyce et al., 1986). Students and pedagogy professionals agree on many outcomes, however, students may perceive more secondary benefits and have more varying viewpoints about potential outcomes than did the professionals.

Physical Activity Adherence Questionnaire

Questionnaires and surveys provide effective methods to measure students' current and future intentions to engage in physical activity. Because this study is measuring future intention, the focus is on students' intention to adhere to a regular exercise regimen. The Physical Activity Adherence Questionnaire (PAAQ) was developed by Corbin, Welk, Lindsey, and Corbin (2003). The aim of the PAAQ is to provide a score related to the respondent's likelihood of achieving exercise adherence.

Kim and Lee (2010) provided the only study evaluating students' physical activity intention as the result of participating in BICs. They examined 264 students' intentions for lifestyle adherence completing university BICs taught in South Korea. Students taking BICs as electives at the university were focused on improving basic skills in sport through practice. The courses met once a week for 100 minutes. Students completed the Physical Activity Adherence Questionnaire (PAAQ) at the beginning and end of the semester. Student responses on the PAAQ items were totaled to determine whether "Adherence is likely," "Adherence possible," or "Adherence unlikely." The mean total and sub-scores were entered into within-subjects analysis of covariance (ANCOVA) with the first tests' scores as the covariate ($p<.001$). Chi-squared tests of frequencies of score categories at pre- and post- course were examined as well. The authors found that "Adherence likely" subscale scores were more frequent in the post-test than the pre-test and "Adherence unlikely" scores were less frequent in the post-test. This change was statistically significant in the "Enabling subscale" but not for the other two subscales. These differences in the pre-and post-tests suggest that BICs can increase physical activity intention through acknowledging one's own exercise planning and sport ability. The authors recommended that future researchers collect data on the amount of time, frequency of meetings, and practices used in BIC courses to better understand the influence of BIC instruction on students' intentions to adhere to physical activity (Kim & Lee, 2010). This study demonstrated the impact that BICs can have on students' future physical activity intention. However, the researchers provided no information about the

content or teaching strategies used in the BICs that led to change in students' intention to exercise. Further research is needed to better understand the teaching practices most likely to increase students' future intentions of exercise.

The Kim & Lee (2010) study confirms the potential value and influence of BICs on students' physical activity intentions. They used the PAAQ as their primary instrument, measuring students' intentions pre and post instruction. The authors' aim was to determine if BIC courses could change intentions of physical activity adherence for South Korean students. The PAAQ was explained to students as a method to determine intention of physical activity participation in daily life.

The PAAQ consists of three sections or categories of "factors" predictive of exercise adherence. Respondents read each factor and respond either very true (3), somewhat true (2), or not true (1). At the end of each section, the researcher calculates a score for each section and then sums the three sections for a total score. The total score is the sum of each section's sub-score and represents a persons' likeliness for exercise adherence. The first section (subscale) includes items categorized as "predisposing factors." These are factors that address an individual's attitudes about current everyday life activity. The second section deals with "enabling" factors concerned with recognition of one's sport skills and exercise planning (Corbin et al., 2003). The final section termed, "reinforcing factors," centers on exercise engagement throughout life. In the Kim and Lee (2010) study, the Enabling category was the only statistically significant PAAQ category.

The PAAQ includes a scoring table classifying the total score as "Adherence likely (33-36)," "Adherence Possible (25-32)", and "Adherence unlikely (<25)." The PAAQ also includes score ranges for each of the above classifications based off each of the three section scores. The researcher calculates total survey score by summing the three category sub-scores. For each category sub-score, the researcher sums the four factors/statements corresponding to each category. The mean total and sub-scores are entered into within-subjects analysis of covariance (ANCOVA) with the first tests' scores as the covariate. Chi-squared tests of frequencies of score categories at pre- and post-course are examined as well.

The PAAQ appears to have both strengths and weaknesses for measuring students' intentions to participate in physical activity after graduation. Threats to validity may occur when "future" intentions must be interpreted from the "current physical activity" category. Students respond for their current physical activity behaviors and the PAAQ scores represent physical activity adherence based on current behaviors and beliefs. However, behaviors and thoughts may change over time. The PAAQ may benefit from having items addressing future intentions to reflect changes that may occur in students' lives. The "enabling factor" of the PAAQ generated statistically significant changes (Kim & Lee, 2010) which address current self-recognition of abilities. More significant changes may be seen with the total score of the PAAQ if an additional category with items specifically designed to measure students' future intentions based on self-perception. This may increase instrument validity to measure the research questions

in this study. A reliability issue may be the varying and changing intentions of students day to day.

However, Choi (2004) tested the validity and reliability of the PAAQ with 610 undergraduate students enrolled in university BICs. The purpose of the study was to validate the convergent and construct validity and inter-rater reliability between items on the PAAQ. Data collection lasted two weeks with pre and post administration of the questionnaire and physical activity data. The researcher modified the PAAQ slightly in creating another sub-category after the "reinforcing factors" and using a 5 point-Likert scale as opposed to a three point scale. The rationale was that the 12 original items from the PAAQ did not address intention or leisure satisfaction enough. The new category included two items associated with intention and two items associated with leisure satisfaction. The intention items (2 items; $\alpha = .85$) were found highly reliable and the leisure satisfaction items (2 items; $\alpha = .56$) were not as reliable using inter-rater reliability. Chronbach's α was used to measure the reliability of the 12 original items. The researcher performed explanatory factor analysis and confirmatory factor analysis in this study. The study's results confirmed that the PAAQ has item internal-consistency. Furthermore, Choi (2004) concluded the PAAQ has acceptable evidence of construct validity. The PAAQ has been supported as a valid measurement of physical activity adherence based on representative items. However, when measuring intentions of physical activity another category with items catering toward the future may better suit the present study. Choi (2004) referred to the five stages of change in the Transtheoretical

Model of Health Behavior Change (Prochaska & Velicer, 1997) and concluded that the new category and Reinforcing factor items accurately reflected the "precontemplation" and "contemplation" stages of change. These two stages are closely related to individuals' plans and future intentions (Prochaska & Velicer, 1997). A PAAQ with a future oriented category may increase the validity and reliability of the instrument in terms of assessing future intentions.

The PAAQ provides scores in several categories thought to impact physical activity adherence. A Predisposing score may classify as "Adherence likely" while their Enabling score may classify as "Adherence unlikely" yet the total score may predict that adherence is highly likely. In this example, Enabling factors (recognition of one's exercises skills/planning) may be the biggest threat to exercise adherence. The PAAQ also provides a conclusion or application for the student describing their likelihood of engaging in future physical activity, bridging the connection between intention and action.

The PAAQ has much strength, yet it also has weaknesses. Strengths of the PAAQ lie in feasibility and score interpretation. Factors are categorized and help stimulate a sense of self-awareness, barriers, and resources to represent future exercise occurrence. A total score and category sub-scores are calculated to display which area(s) a student may be at most risk for non-adherence. The fact that the PAAQ consists of three categories and 12 items may limit its coverage of the dynamic process of intention and exercise adherence because more items or categories can provide more insight on a person's

thoughts and intentions. Although it is a valid and reliable instrument (Choi, 2004) for assessing physical activity adherence, students may have their behaviors, attitudes, or moods change to affect reliability. So the PAAQ may not be able to account for changes in student thoughts in the current form. The PAAQ can be modified to evaluate future intentions with the use of another future oriented sub-category.

Instructors

Qualifications for instructors to teach BICs vary depending on the college (Soukup, Warhol, Lillis, & Hatten, 2005). Some institutions use full time instructors, professors, or part-time/adjunct instructors while other places assign graduate students to teach these courses (Hensley, 2000). Full-time instructors will typically have at least one degree or certification in PE or have experience teaching in sport or fitness settings. Large institutions are more likely to use graduate students or adjunct faculty to teach BICs while smaller private institutions use tenure-track faculty and coaches (Hensley, 2000). Using non-tenured instructors in BICs was reported as commonplace. Many graduate level institutions provide paid assistantship to graduate students in the department of Kinesiology or health/sport related fields to teach BICs. Faculty also views these teaching experiences as valuable for their graduate students. The relevance of this is that the proposed Future Practices program can possibly be effective in influencing students' future intentions of exercise regardless of the instructor's title and school size although it is examined with a large public university and graduate student instructors.

Suggested Instructor Characteristics Based on SDT

Students' levels of perceived competence in a sport or fitness activity relates directly to decisions to participate in that activity in a recreational setting (Carroll & Loumidis, 2001). Students may be more inclined to engage in an activity outside of school if they feel they are skilled or competent in that area. Although students who have higher perceived competence in an activity are more likely to engage in physical activity outside of class than students with lower perceived competence, both ability levels report similar levels of enjoyment (Carroll & Loumidis, 2001). This means that improving student's skillfulness and abilities through effective teaching is critical to influencing lifelong physical activity although all students may enjoy the activity similarly.

Further, students who recognize the purpose and relevance of PE programs in their current and future lives appreciate and are willing to engage in lifelong physical activity (Graham, 1995). BIC course instructors who can effectively teach relevant skills and tactics to their students and provide improvement opportunities fulfill a critical need in BIC instruction. Soukup et al. (2005) examined the benefits of hiring graduate students specializing in pedagogy to teach activity courses or athletic coaches who have sport expertise, but may not have a pedagogical background and experience teach BICs. The authors concluded that the most qualified and effective teachers should teach these courses. In this research the pedagogy background of graduate students outweighed the sport expertise athletic coaches bring to the BIC setting. However, when graduate students do not have sufficient pedagogy background, these researchers suggested having

these instructors participate in a sport/BIC teaching related seminar. Graduate students in the field of kinesiology are often the most prevalent form of BIC instructors and can be more effective in promoting life-long physical activity than athletic coaches as instructors (Soukup et al. 2005).

Role of BICs in Society

Can BICs influence college aged students' future decisions to engage in physical activity? Ennis (2010) discussed the importance of student physical activity behaviors once students have graduated and are on their own; focusing on lifetime physical activity. Although the article is tailored toward K-12 PE, the main points can be applied to university students because independent physical activity can be more of an issue in college (i.e. not living at home anymore). Students will be more likely to appreciate physical activity if they understand its usefulness, acquire relevant skills and knowledge, and enjoy the lessons (Ennis, 2010). Ennis (2010) condensed lifetime physical activity influences into the need for powerful early experiences, content selected to be valued for a lifetime, skillfulness, fitness knowledge, nurturing perceived competence, and fostering joy of movement. Each section focused on the opportunity and methods that instructors can use to enhance students' opportunities to be physically active. Accommodating student needs for skill proficiency, knowledge, competence, and self-worth while focusing on enjoyable long-term goals is crucial for lifetime activity. When students are faced with decisions or options to exercise in the future, they can reflect on their PE experiences. If the experience is perceived as fun, valuable, educational, and fulfilling,

they are more likely to engage in the activity. For students to be active for a lifetime requires a conscious change from traditional PE to educational, meaningful, and enjoyable experiences where reflection on PE can increase likelihood of life-long physical activity (Ennis, 2010). Often a negative K-12 PE experience can influence a student for a lifetime. It is equally important for university BICs to be agents of change in both behavior and perception to influence lifelong physical activity.

BICs can contribute to skill and sport development because most focus on one major sport or fitness activity allowing students many opportunities for practice within one activity. Sparling (2003) explained that college BICs are an "unrecognized agent of change" in combating sedentary behaviors. The author highlighted the potential impact of BICs on physical activity promotion as largely unrecognized by much of the American population. BICs can make important contributions in the primary prevention of inactivity-related chronic diseases. Increased awareness and effective implementation is needed to strengthen college BIC programs and their impact.

Three main types of physical activity-related interventions can lead to behavior change in adults aged 20-60, and these are: (a) information, advice, and counseling (b) an activity based program and (c) social networking and infrastructure (Biddle, Brehm, Verheijden & Hopman-Rock, 2012). A BIC has the opportunity to incorporate all three types of evidence-based interventions simultaneously. For instance, BICs can provide information on the sport topic as well as health or fitness benefits that can occur from participation in the sport. BICs require students to be active during a predetermined day

and time as part of the course thus contributing to an overall activity program. Additionally, the social aspects of BICs could be implemented to make the course a social networking and accountability experience for the students to encourage future physical activity.

Brunet and Sabiston (2011) conducted a study examining motivation for physical activity across three different age groups: young adults, adults, and middle-aged adults. They focused specifically on physical activity motivation as it relates to SDT. They found that the underlying concept of intrinsic motivation was a main correlate of physical activity in each age group. They concluded that individuals age 18-64 report being motivated to be physically active because it is congruent with their personal values, goals, or needs or they find it enjoyable. This finding appears consistent across all age groups. They also found that some people are less motivated by external rewards or to avoid punishment.

Nelson, Gortmaker, Subramanian, and Wechsler (2007) noted how physical activity declines from high school to college. They stated that although athletic participation was a determinant of physical activity, few college students actually participate in collegiate athletics compared with high school. College is an important setting for promoting physical activity and addressing health disparities (Nelson et al., 2007). BICs also can serve former high school athletes by replacing their competitive experiences with a similar one sport setting. Students may be able to experience sport in an intrinsic manner such as participating for health-related benefits and enjoyment rather

than extrinsic influences such as mandatory practices. The competiveness levels in high school athletics may be higher than in BICs but the BIC setting can allow different perspectives on sport to arise from athletes while still maintaining some aspect of competitiveness. This means intrinsic motivation is crucial for exercise adherence. Students may enjoy competitiveness but they must realize the course can personally benefit them through more ways than winning or having fun. BICs may aim to increase college students' physical activity levels based on their personal goals and values.

In summary, university BICs can provide an enjoyable student experience while also improving competence in one or many skill-based activities. Having fun, learning skills, and improving ability to play the game as part of a BIC can influence intrinsic motivation for students and increase their perceived value for the sport. Further, encouraging students to think more futuristically can increase the perceived value for physical activity. As students connect lifetime physical activity to improved quality of life, they are more likely to engage in social and recreational activities and find greater enjoyment.

Instructional Practices

This section will highlight instructional practices that appear to be effective in enhancing students' enjoyment and motivation to be physically activity. When combined strategically as part of BIC instruction they may promote students' future intentions to be physical activity. Because physical activity is influenced by a variety of psychological, social, cultural, and environmental factors, it is reasonable to assume that effective

interventions should alter those variables that appear to mediate the behavior (Sallis, Calfas, Nichols, & Sarkin, 1999). It is important to identify factors that appeared to drive students' behavior and intention both inside and outside the course. Manipulating these aspects of a team sport BIC in the context of instruction can help refine best practices to encourage students' to increase their intention for future physical activity.

Social Aspect

Students enter BICs with individual biases, perceptions, and expectations. Students may or may not realize the opportunity they have to build social relationships when taking a BIC. In addition to relationships, the simple act of communication can be assessed and emphasized in BIC settings. Enhanced social interactions and ownership of learning enhances student motivation and engagement in sport-based classes (Spittle & Byrne, 2009). Team sport–oriented BICs provide opportunities for students to experience social interaction and team affiliation within a cooperative class environment.

Social interaction. BIC instructors can encourage positive social interaction and engagement by encouraging a task-involved environment (Garn, Ware, & Soloman, 2011). Instructors nurture this setting by avoiding situations in which grades are based on competitive outcomes and that permit students to group themselves based on common outcomes and goals (Ayers & Martinez, 2007). Students with similar goals and points of views are more likely to interact frequently and successfully. Further, by varying the team and group organizational structures and rewarding cooperative vs. competitive environments, BICs can foster not just social goal involvement but behavior,

performance, and motivation (Stuntz & Garwood, 2012). Effective grouping strategies encourage diversity, encouraging students of different backgrounds and abilities to support and aid in each other's performance and development. This can provide an inviting, positive social environment in BICs and one which they can replicate after graduation as they seek physical activity opportunities in sport and leisure activities.

Within a BIC team sport environment, the team dynamic is very important in any sport for every player. This is especially true when fostering social interaction. BIC instructors can explore several options when deciding team size and composition. Carron, Spink, and Prapavessis (1997) examined the team building process and group cohesion in sport. They concluded that cohesion, group members' successful interactions in pursuit of team goals is the most important small group variable. Team members should identify goals and decide strategies to achieve success and handle possible setbacks. Instructors can take steps to ensure that all team members are in agreement regarding class activities and games. Students can increase their own value of team sports in seeing the group problem-solving and collaboration aspect of BICs. These may be important life skills in the eyes of students and can help increase their intentions of physical activity after graduation because they understand the value of participating in one or several team sports.

Team affiliation. The sport education model developed by Siedentop (1994) addresses the team environment emphasizing team affiliation, small-sided games, season-play, and individual roles each student can fulfill for his or her team. A PE instructor

using the sport education model often groups students into small teams where the students can choose or are given a team name and colors and participate against other teams in a season format across several lessons. Each student in each team will also be assigned a role within the team as a scorekeeper, coach, captain, or equipment manager. Jenkins and Alderman (2011) examined how utilizing sport education influenced group cohesion in university BICs. They found that team sport and lifetime skill courses reflected more group cohesion than exercise class participants. Team sport participants reported the highest social cohesion of any other type of BIC. They concluded that the sport education model increased group cohesion in BICs and especially in team sport courses. They propose that a modified sport education model be incorporated into the university BIC setting. The modified model includes team duties and roles, but eliminates more tedious and elaborate model characteristics that college students may view as meaningless.

A major factor of the sport education model that is especially apparent in a team sport content-based course is team affiliation (Siedentop, 1994). A student should feel a sense of belonging to their team during the season. The development of feelings of identity, the sense of belonging to a team, and the growth of social skills are experiences that sport can offer. MacPhail and Kirk (1995) studied the promotion of team affiliation through PE using the sport education model. They explained how extended sports education units cater to team affiliation and promote social development. Their findings emphasize the attractiveness of team affiliation to students encouraging them to persist in

their roles and team responsibilities. Sport education is an effective way to develop the team affiliation within a BIC. Team affiliation is a key social element that can be nurtured in a BIC. A sense of belonging and affiliation to a group or team identity may influence future exercise for students who wish to pursue a future team or small group exercise settings.

Cooperative Class Environment. A cooperative BIC program has the ability to enhance students' social skills (Goudos & Magotsoui, 2009). Cooperation can occur both during game play and as students assist the instructor and others with equipment, team management, and supportive team roles. Students and peers often report they notice the development of their own and/or others' cooperative skills as part of team sports activities. It is important to note that constructivist teaching and learning strategies (i.e. guided discovery) can be used to enhance student social skills while also encouraging students to learn and perform intended outcomes. As teachers give students responsibility for their learning within a given structure, they realize that students depend on their classmates to learn and achieve. Thus, teachers can use peer affect to influence student motivation and cooperation (Garn, Ware, & Solmon, 2011). Students may recognize the value of depending on others and influence their intentions for future physical activity.

The sport education model and constructivist teaching strategies can be implemented successfully to influence future intentions of physical activity in college students. The social aspect of team sports BIC plays a crucial role as players interact to communicate and reach team goals. Teachers can manipulate specific aspects of a BIC to

create a socially inviting environment, connecting social constructs associated with exercise to future life opportunities and obstacles. As students acquire a more futuristic perspective, their value for the BIC gains more importance. When students value social interaction in a dynamic BIC setting, they can increase their likelihood of future physical activity.

Community/Outside Class Involvement

The surrounding community environment also can affect students' likelihood of engaging in physical activity and increase their exercise adherence after graduation. The main predictors of physical activity after graduation are physical health and perceptions of well-being, exercise benefits, and recreational sports involvement (Forrester, Arterberry, & Barcelona, 2006). Some students may be oblivious to the physical activity resources available on and off campus. BIC instructors can assist students by encouraging them to explore opportunities for physical activity and positive health behaviors provided by campus programs (Forrester et al., 2006). Students can increase their intentions for exercise if they explore resources for activity.

Most colleges sponsor intramural sports programs that can result in the development of character and leadership among the participating students, leading to a commitment to a lifetime physical activity (Farrell & Thompson, 1999). Through these programs, participants can gain a commitment to future exercise. However, not every student takes advantage of campus facilities and resources. Additionally, off-campus, community sponsored programs available at community recreation centers and the

YMCA and YWCA can provide alternatives to campus-sponsored programs. If students are aware of programs offered by the university or community they may intend to utilize them in the future.

Buckworth (2001) found that the setting and environment post-graduation plays a major role in exercise adherence. Cardinal et al. (2012) emphasize that the healthiest students often utilize campus exercise facilities. Students who want to work out and are committed to exercise often are the most frequent visitors to gyms and fitness centers. A public university should provide opportunities for novice exercisers to learn about and utilize existing recreational and fitness facilities (Cardinal et al., 2012). BICs can play a role by providing opportunities to educate students about available resources and methods of exercise. There are numerous settings conductive to physical activity in the off-campus community. Bedimo-Rung, Mowen, and Cohen (2005) studied the effects of park-based physical activity on students' recreational opportunities and choices. They concluded that parks are a promising means to satisfy physical activity recommendations, although more research is needed on the influence of availability and design on physical activity behaviors. Parks, however, are not the only form of exercise environment off-campus. Bike paths, gyms, trails, pools, golf courses, tennis courts, etc. also may be available in the surrounding community. One possible solution for increasing physical activity in less active college students is to raise awareness of resources available in the community. BIC can assist students to learn how to locate and use community resources outside the university so they can use these strategies after graduation when they may not

live on or near a college campus. With the college environment stressing independence and future preparation, BICs provide an opportunity to introduce students to community physical activity resources. Incorporating community awareness as part of lectures, activities, or assignments in a team sport BIC may have a positive effect on students' future physical activity intentions.

Enjoyment

Creating a positive experience in a BIC environment is crucial for students' intention to pursue physical activity in the future. A positive experience in BICs can result from learning, improvement, or exposure to new activities. Enjoyment has been proven to be an important factor in determining student's intention for future exercise. Avery and Lumpkin (1987) studied a large university BIC program to identify which course objectives students considered most and least important. They found that the most important objectives for students were having fun, getting regular exercise, and maintaining good physical condition. The least important objectives were learning about kinetics/exercise science, developing emotional stability, and self-actualization. The authors' conclusion was that college PE administrators should have a clear understanding of student perceptions toward their BIC courses and cater to students' values as much as possible. They suggest that students' class experiences should incorporate fun, exercise, and physical health because that is what they most value. Although some faculty and administrators may favor skill development, cognitive understanding, and social outcomes, these aspects of instruction should not hinder students' perceived objectives.

Avery and Lumpkin (1987) highlighted how programs that increase the likelihood of future physical activity cater toward student desires. This is certainly the case when taking a diverse and broad approach to implementing drills, games, and tasks that meet the needs of BIC students (Avery & Lumpkin, 1987). The researchers argued that BICs must find a balance in the type and amount of drills and game-play tasks that are used in BIC instruction to increase student perceptions of value for the BIC. Another interesting conclusion was that in 1987, males valued physiological content taught in BICs more than females and underclassmen (i.e., freshmen, sophomores) who rated the social affiliation objectives higher than upperclassmen and older students. The socialization process in college is an important factor to consider. Underclassmen may seek interactions with peers more than upperclassmen who may already have a supporting social structure. Enjoyment may be a by-product of an inclusive and inviting social environment. The enjoyment factor may influence the social aspect of BICs that in turn may contribute to students' intentions to be physically active after graduation.

Autonomy. BIC Instructors may positively influence students' intentions by providing choices among physical activities, tasks, and peer groupings to foster increased autonomy (Hagger, Chatzisarantis, & Biddle, 2002). This may vary for different age levels in different content areas. Elementary physical educators, for example, can provide choices by offering different activities, games, or difficulty levels for movement skills while secondary PE teachers may allow more choice in the courses within PE that are targeted toward specific types of activities. University BIC instructors typically focus on

one sport or activity and can provide choices for students within the same sport through task or drill modifications, partner or team selection (self-grouping), motivational scoring, and more constructivist strategies that allow for student creativity. Promoting choices and class attendance can also increase students' motivational outcomes and enjoyment (Xiangli, Solman, Zhang, & Xiang, 2011). Choices are crucial for enjoyment since they allow some freedom for the student. Giving students responsibility for their learning can influence their value of BIC content and influence their intention for utilizing skills in the future.

Student perceived success. Many students view sport more as a source of fun, diversion, companionship, and relaxation and less as a tool to improve health or fitness (Green, 2004). Although university students may know that health benefits can result from sport participation, typically their main focus in sport participation is on fun, relaxation, and social collaboration often to alleviate stress. Therefore, the sport environment is a powerful tool for instructors to impact students' current and future physical activity choices. Although students desire to have fun in their sport-based classes, it is still important to teach valuable concepts while simultaneously promoting enjoyment. Higher levels of perceived success, companionship, and esteem positively influence students' experiences which in turn can improve enjoyment and future expectations for success in PE (Duncan, 1993). Instructors should let students experience success in the BIC sport to build their confidence and encourage them to feel they are improving or performing well. The sport environment is an ideal setting to increase

student enjoyment through friendship interactions, improvement, and game-like situations that enhance their future intentions of physical activity.

Persuasion/Role Modeling

University instructors also can serve as role models and advocates for physical activity in BICs. Instructors should know the health-related benefits of exercise and emphasize them in their courses (Ayers & Martinez, 2007). Additionally, they can stress their own knowledge and passion for exercise and its physical and mental benefits. Their personal examples of participation in physical activity both in and outside of class can serve to model exercise engagement. Higher levels of teacher support and modeling may contribute to improved student outcomes for sport BICs. (Lubans, Morgan, & McCormack, 2011). The more students observe their instructor participating in physical activity, the more they are likely to focus on these options for their own future recreation and health.

Instructors also can choose which activities to implement and the extent to which they advocate for current and future physical activity in their lessons. Alexander et al. (2002) examined sixth and seventh grade students' beliefs, interests, and knowledge in lessons designed to persuade students to increase their interest in science. They highlighted that consciously teaching to persuade students can focus on student attitude and knowledge restructuring to impact conceptual change (Alexander et al., 2002). They state that persuasion involves convincing individuals to look differently or more deeply at some concept or subject. Persuasion is neither inherently good nor bad, but the impact of

persuasion depends on the importance of the issue, and credibility of the arguments, evidence, or examples expressed. Some students may need to be persuaded to plan exercise for the future.

When people are persuaded, often there is some confirmation that change has occurred through changes in their actions, understandings, and their pre-existing beliefs (Murphy & Alexander, 2004). Murphy and Alexander (2004) examined instructional persuasion strategies by providing small group discussion activities in science classes emphasizing different viewpoints on Galileo's study of planetary movements. They concluded that even a one-day persuasive lesson can result in significant shifts in sixth and seventh graders' demonstrated knowledge, perceived knowledge, interests, and beliefs. Learners in both the teacher-led and student-led groups responded positively to discussions about scientific facts and principles embedded in texts with rich historical and philosophical context. The study included comparison classes in which students studied the same topics, but demonstrated smaller learning gains when the knowledge was not transmitted through persuasion. Persuasion strategies emphasize the articulation of arguments and evidence to support various views or positions on issues. The authors point out that teaching as persuasion seeks to arm students with the persuasive tools and evidence based knowledge, empowering them to persuade others. Instructors and other students both may help persuade future intentions for physical activity.

Persuasion as a Strategy in BICs. Numerous studies support the value of physical activity and can be used to persuade students that current and future exercise is

important now and in the future. They can do this by presenting new information (i.e. health benefits) tasks, games, environments/equipment, anticipate barriers or catering to the social dynamic of physical activity. However, not all students enter college with knowledge, experiences, and beliefs in valued academic or healthy behaviors. Alexander, Murphy, Buehl, and Sperl (1998) examined the extent to which adults were persuaded by reading about a topic. They found that readers with moderate stances, high interest in the topic, and medium levels of perceived or actual knowledge in the topic were more likely to be persuaded by reading than those who were uninterested and unknowledgeable. Thus, students enrolled in a BIC may be susceptible to persuasive arguments because they elected to take the course (interested) and wanted to learn or increase their learning of the BIC sport or exercise. Currently, however there is no evidence of the power of persuasion in BIC environments. This study may help us understand how to persuade those students that lack future intentions of physical activity.

BIC instructors have potential to influence students' perspectives through their enthusiasm for and engagement with the course physical activity (Sanderson, 1995). Instructors' personal interest in their students conveyed as caring about students' current and future well-being can persuade students to engage in the current course and may influence students' intentions to participate in future physical activity behaviors. Enthusiasm and energy combined with persuasive evidence and explanations leading toward outside-course physical activity can be an effective way to influence future intentions of physical activity. Student enthusiasm for exercise may rise with the

instructor's enthusiasm. Further persuasive strategies can be embedded in BIC lessons in which discussion of physical activity benefits, and current and future opportunities to participate may arise. Instructors can demonstrate or explain how concepts can benefit students in game-play and physical activity. It is likely that some students' prior experiences, interest, and knowledge prepare them to understand and value connections between physical activity concepts and their performance in and outside of class, perhaps also impacting their intentions to participate in future physical activity.

Summary

Although many concepts taught in university basic instruction courses are applicable to a wide range of physical activities and real world settings, it is still unclear the extent to which university students are aware of the value and usefulness of these concepts. It is important to examine the extent to which existing, structured basic instruction courses can increase students' intentions to be physically active, (Leslie, Sparling, & Owen, 2001). Increasing student's perceived value and connection to their present and future lives can promote life-long physical activity. It may be easy for students to perceive the relevance of individual sports, such as swimming, tennis, and golf, because these are more easily considered "life-long" or "leisure" activities with fewer barriers to exercise. It is more challenging to create a course culture in which student's value other sport courses, such as soccer and badminton.

CHAPTER III

RESEARCH METHODS

The purpose of this study was to examine instructional practices in BICs that influence students' intentions to participate in future physical activity. The research question that guided this study was, "What instructional methods can BIC instructors use to increase students' intentions to participate in physical activity after graduation." This research used both quantitative and qualitative methods in a mixed method with comparison group research design. Mixed methods research can increase the validity of the study through use of differing research techniques (Creswell, 2008). I compared responses of students who received the FPP with students in a BIC who did not receive the FPP. In this chapter, I discuss the pilot study I conducted to inform the research design for this thesis research. This section will be followed by a discussion of the thesis research design, including participants and setting, the Practices Implementation Checklist, data collection and analysis, and threats to reliability and validity of this research.

Pilot Study

I conducted an ethnographic pilot study as part of a qualitative research methods course to examine the extent to which team sport-oriented university BICs influenced students' future physical activity. The research questions guiding this study were, "To

what extent do BIC instructors encourage and students consider engaging in after graduation physical activity as a result of their participation in the team sport BIC?" and "What instructional practices do BIC instructors use to enhance students' intention to participate in future physical activity?"

Setting

The pilot research was conducted in two undergraduate BICs at a large public university in the southeastern United States. One BIC was a beginner level soccer course taught by a female graduate student instructor who was a certified physical educator, studying exercise physiology. The other BIC was a beginner level volleyball course taught by a different female graduate student studying exercise psychology, but who was not a certified PE teacher. Twenty-four students were enrolled in the volleyball course that met in the university's basketball practice facility. Eighteen students were enrolled in soccer taught outside on a large practice field and indoors in a gymnasium during inclement weather. The majority of students in each class were kinesiology majors.

Data Collection

I used three different methods to collect the data: field notes/observations, interviews, and focus groups. I observed five lessons in each course as a non-participant observer located in the gymnasium or on the field perimeter outside the playing areas but close enough to hear what was being said. I developed detailed field notes for each course observation based on what I saw and heard.

I also conducted individual semi-structured interviews with each course instructor and two volleyball and one soccer student in a secluded, private setting. These interviews were conversational, meaning they were less like asking a question and more of a natural interaction among the interviewer and interviewee.

I conducted a focus group with four student participants in each course. I collaborated with the course instructor to select one high-skilled, one lower-skilled, one highly-social, and one lower-social student in each group. I conducted the interviews and focus groups in the gymnasium after class using an electronic voice recorder and transcribed each shortly after the conversation ended. After I transcribed the interviews, I used member checking, returning the transcribed interviews to the interviewee to review and verify their responses. All student and instructor responses were kept confidential.

Data Analysis

I used open and axial coding to analyze the data. I reviewed observations, interviews and focus groups for categories and properties and triangulated these across data sources. As data were reviewed, categories emerged that reflected instructor and student perspectives' on events and opinions associated with future intention to participate in physical activity and the methods BIC instructors might use to encourage future intentions to participate.

Results

When examining these two team-sport courses, I found that instructors did not emphasize opportunities to participate in physical activity associated with these two team

sports after graduation. Likewise, students did not mention, and upon questioning had not considered, opportunities that might be available in the future to participate in these two team sports. However, it was evident from field notes and interviews/focus groups that instructors used three types of instructional practices, including class grouping structures, encouragement, and teacher feedback that might contribute to students' future intentions to participate. Three primary themes representing instructional practices emerged from data analysis: peer collaboration (teamwork, relationships), enjoyment, and community involvement.

Peer collaboration. Peer collaboration focused on how students interacted with one another during the lesson. Students, such as Jane, expressed that they enjoyed interacting with other students in the course. "…It's just fun, you have a chance to talk and socialize with other students and you get to see them regularly in a set place" (soccer). BICs appeared to provide an organized time and place for students to interact with one another. Thomas added during the focus group, "…It's harder to meet and have actual conversations with a large group of students in other classes on campus. It's exciting to come to class each time and know you have a chance to unwind a little bit and talk to other people" (Soccer).

Likewise, the instructors stressed social support as part of their teaching philosophy. Savannah described her volleyball class, "…I try to change up teams frequently so students get a chance to play and interact with everybody in the class. I

think they enjoy it because they get to experience everybody and they don't get bored." Olivia, the soccer instructor adds:

> It's interesting to see how students will support each other as the class goes on. I think they gradually get comfortable with each other and enjoy socializing during drills and games. I try to make the class as socially inviting as possible.

It was apparent that meeting and exercising with other people was motivating for students. Two subcategories were developed within the peer collaboration category: teamwork and relationships.

Within the theme of peer collaboration, the teamwork subcategory addressed student reports of opportunities to play as part of a team or group. When I asked Sonia to describe the social aspect of the course, she responded, "…in some drills when it's a small group of 3-4 you have a chance to talk. And then she puts us in teams for two weeks, those people are more social with each other because they feel that team spirit" (Volleyball). David commented, "…it's important to talk in here versus an individual sport where you may not have to, you get to know the personality of other students from playing as teammates and everyone is very encouraging" (Soccer). These students highlighted the importance of teamwork through communication in team sport activities. Students interacted with teammates because of the nature of the sport. They had multiple opportunities to socialize through teams because of the small group focus. This provided support for the incorporation of small-sided games and teams to foster team collaboration and affiliation for developing social interactions.

Within the theme of peer collaboration, students also developed relationships with others through social interactions. Students reported that team sports BICs were an important way to meet people and develop social skills. Sarah explained, **"**For me, it's a really good way to meet new people and I really enjoy that. I just enjoy playing the game overall" (Volleyball). When asked how the instructor organized the lesson, Justin replied, "…usually at the beginning we have to warm-up and we are encouraged to pick different people to warm-up with each class so in the first two weeks there is a rotation of about half the class" (Volleyball). Mitchell provided more information:

> I didn't know anybody in the class in the beginning. The first week you're having to play with a team you don't really know so it gets a little bit awkward…right now I know every single name of my classmates. I've seen them outside of school and sometimes you will see them and say "hey how was your day?" and it's not awkward. I guess we have become more than just classmates. (Soccer)

Enjoyment. Some students hinted that they liked having something to look forward to as a group. For example, Mario explained, "I think that we look forward to scrimmaging every Friday. We know that if we do well on Monday and Wednesday with the skills and agility practices, then on Friday we look forward to that" (volleyball). The instructor used scrimmages as an incentive, motivating students with game-play situations. Allison added, "…I also like how we get to scrimmage every Friday. Because that is kind of the idea of putting it all together from what you learned throughout the week, and you get to actually apply the skills." Scrimmaging also was enjoyable way to apply (transfer) previously learned concepts and drills to more complex game

environments. Students reported that they had a chance to put things into "action" in scrimmages/game-play. Volleyball instructor, Savannah, also acknowledged the value of enjoyment in her course:

> I would say that when they do something they enjoy, they actually try a little bit harder (laughs). If it's something they don't quite enjoy, you'll see them kind of walk around and just kind of take it easy... The attitude can change, it will be when we first start to do it they'll be like, "I don't want to do this." Then when they start playing in teams and moving you will see the intensity increase and just see they're a little more talkative and encouraging of everybody else.

These quotes display the importance of having fun for students and for instructors to strive for a quality balance between drills and scrimmage/gameplay. Gameplay can also increase effort and can create an overall better class climate from enjoyment.

Outside of Course Involvement. Students and instructors emphasized the value of using the university's intramural program or resources outside of the course as an extension of the BIC. BICs have the opportunity to help students build friendships with people in class and this positive experience may be motivating in the future as a way to meet people. David pointed out that this course, "… sparked my interest again in playing with, and being able to meet new groups of people through sports. I think using intramurals and the rec sand courts as a tool in [BIC] would also be a beneficial strategy to get students active outside of class" (volleyball). The intramural programs offered by the university provided a welcomed resource for students' physical activity. However, students and instructors failed to mention more off-campus or outside resources that could also benefit their exercise plans.

Trustworthiness

In my thesis study, I used several specific data collection methods I tested in the pilot study to increase the likelihood that participants will talk openly and honestly with me. I felt that students and instructors were comfortable giving their honest opinions. I think my most effective strategy with students was building pre-interview rapport. I asked them questions about their interests, other courses, and future intentions as I interacted with them before the interviews and focus groups to engage them in conversations to increase rapport and clarity before the voice recorder was turned on. I also explained my background and how I teach BICs too. I feel that after the students heard me speak before the interview or focus group, they genuinely felt their responses were safe, and that I was sincerely trying to gain a better understanding of BICs. When interviewing the instructors, I mentioned how I wanted to learn about their approach and what occurred in their classes. All students and teachers seemed happy and eager to let me interview them. I think that mentioning how nothing said would be graded or critiqued helped as well in eliciting honest responses.

Summary

Results from this pilot study indicated that neither the instructors nor the students were aware of a focus on future physical activity. Additionally, there appeared to be numerous opportunities within these team sports lessons to integrate an emphasis on future physical activity using peer collaboration, enjoyment, and community involvement. This pilot study provided a starting point for me to design a study that

examined the impact of instructor emphasis on future physical activity using these and other practices that may increase students' intentions to participate in physical activity after graduation.

Thesis Research Design

Participants and Setting

The participants in my thesis study were the instructor and students enrolled in beginning soccer and a volleyball BIC at a public university in the southeastern United States. The soccer course served as an experimental group (Future Practices) and the volleyball course acted as a comparison (Control) group. The female soccer and volleyball instructor was a second year graduate student studying sport psychology. Her undergraduate degree was in exercise and sport science and she had experience playing soccer and volleyball. She taught both of these BICs in the two previous semesters. The soccer BIC had an enrollment of 20 students. The volleyball course included 21 students.

The majority of students in each BIC were kinesiology majors. Specifically, 13 of 20 students in the soccer BIC majored in kinesiology. Twelve of 21 students in the volleyball BIC were kinesiology majors. This research was conducted in two BIC settings. The first setting was an approximately 30x60 yard outdoor soccer field on campus. The second setting was a large gymnasium comprised of two college length basketball courts with six basketball goals. The space accommodated two volleyball nets and college-sized courts.

Comparison Group

A crucial aspect of this study was the use of a comparison group. The comparison group was a beginning level volleyball course at the same university. The volleyball and soccer BICs were taught by the same instructor. All 21 volleyball students completed the PAIAQ twice on the same days as the students in the soccer course. The instructor did not implement the proposed FPP in her comparison course during the duration of the program. Therefore I was able to compare the effects of two BICs taught by the same instructor in which one class experienced the FPP while the other did not.

Rationale for Selection of these Courses

The purpose for selecting sport BICs was to examine how certain instructional practices can influence students' intentions to participate in future physical activity. I selected these two team sport BIC because the settings are authentic. The soccer and volleyball classes appeared to be representative of other BICs offered in other university institutions because they are common team sports played by many American adults and children. The instructor had a common background for most BIC instructors at this university. The instructional practices examined in this study were first identified in a pilot study I conducted in actual BIC courses and provided a solid foundation for the rationale behind the four practice categories I investigated. The beginning volleyball course served as a comparison group. The proposed instructional practices were absent from the volleyball course to investigate the impact of the FPP compared with a traditional sport BIC.

Future Practices Program Design

The aim of this intervention was to understand the effects of implementing future physical activity-oriented instructional practices in BICs. The FPP that I created consisted of four categories of practices, social aspect, enjoyment, outside class involvement, and persuasion/role modeling, derived from the pilot study. There are several specific practice options nested within each of the four categories. I trained the experienced instructor to implement these practice options using a one-hour training session. The instructor implemented the FPP in her course during three lessons taught during a one-week period (training protocols are described in a later section). As part of the training, the instructor learned to use the Future Practices Checklist (FPC, See Appendix A). This checklist served as both a reminder to the instructor of instructional practices the instructor could chose to implement in each lesson and as an instrument to collect data regarding specific practices that were used in each lesson. During the lessons, the instructor implemented at least one instructional practice from each of the future practices categories. The exception to this was within the enjoyment category, where there was one practice item. Which instructor was encouraged to implement once in each lesson. The selection of a particular practice and the selection of the specific lesson in which it was be implemented was at the teachers' discretion and every practice was used at least once. The instructor used the FPC to select the practice(s) used in each lesson. Additionally, she made comments in her journal entry to explain in detail how she attempted to use the practice options in the

soccer BIC. The instructor implemented the FPP in her BIC over a one week period. Specifically, the soccer course met three times a week at noon for fifty minutes.

The FPP was flexible because it lacked formal lesson plans. This permitted the experienced BIC instructor to select and embed the practices within her own course plan and topic structure. She also recorded when and how the practices were used in her lessons. There were three practices per category (except enjoyment) and the instructor used each practice at least once.

Social Interaction Practices. The three practices grouped within the social interaction category were meant to encourage students to interact in a variety of ways. In the first practice, team affiliation, the instructor organized students in small teams or groups. She aimed to maintain these same groupings for consecutive classes as might be used during a sport season (MacPhail & Kirk, 1995). The purpose of the team affiliation practice was to increase the students' sense of belonging by identifying themselves with a team. Students in a team setting were encouraged to set goals for the single class session or for multiple class periods. This was used to help students rely on each other to work toward a common goal. This practice was constructed to increase future intentions to be physically active by emphasizing the value and enjoyment of belonging to a team or group within an exercise setting. After completing the BIC, students may miss the team collaboration; they may choose to seek opportunities to belong to a recreational or intramural team.

Another practice in the social interaction category was peer teaching (Ward & Lee, 2005). Peers can be very influential in motivating and engaging students. Teacher and peer instruction may help improve students' skills, abilities, confidence, and value for physical activities. In the FPP, the instructor stressed ways in which peer teaching contributes to collaboration and peer helping when students help each other learn and perform specific skills or tactics.

The instructor stressed social collaboration inside and outside of class. Connecting with peers is a way students can construct meanings of physical activity within their lives and community (Azzarito & Ennis, 2003). Students who collaborate outside of class may be more likely to view exercise settings as opportunities to meet others and build relationships. They also may find exercise partners to hold them accountable and participate in physical activity with them in the future. They may utilize physical activity in the future with primary motivation for social gains.

Outside Class Involvement Practices. The outside class involvement practices category included three practices that encouraged active student involvement outside of the course. In the first Future Practice, Mentioning Facilities On and Off Campus, the instructor was trained to verbally mention an on- or off-campus exercise facility during instruction. This can raise students' awareness of possible resources available for students to be physically active either currently or in the future.

In the second Future Practice in this category, Life after College, the instructor discussed and encouraged students to reflect on how their lives might change as they

transition from college to work. The instructor reminded students that they may not always have a set time or place to play sports or find facilities such as those available through university recreation programs. The instructor encouraged students to begin mentally creating a plan to continue in soccer or possibly another physical activity after graduation. Based on the results of the pilot study, initiating future thoughts may help increase students' future intentions to be physically active.

In the third Future Practice in this category, Locating Opportunities for PA, the instructor assigned students to research and explore places to play soccer in the community and to report these in a written report. The instructor set a page requirement of one to one and a half pages, double-spaced. She titled this paper the Community Aspect Assignment (CAA), which she created on her own when the researcher mentioned the use of an assignment highlighting resources in the community. A tremendous opportunity for increasing our population's physical activity lies in raising community awareness of exercise resources (French, Story & Jeffery, 2001). Students can increase their likelihood of physical activity post-graduation if they are aware of exercise resources in their community settings. To supplement this Future Practice, the instructor made the assignment worth ten points toward the students' final grade. The instructor encouraged students to find websites and call or even visit facilities outside of the university's campus. This helped students learn access strategies to use in environments different than the BIC setting. This can raise students' awareness about community

programs and resources for students currently or in the future, providing useful technology strategies to locate physical activity settings after college.

Enjoyment practice. The practice in this category gave students choices, such as a choice of activity, groups, or partners. Choices reflect the "autonomy" SDT category and can make lessons more enjoyable for students, perhaps increasing future physical activity intentions (Hagger, Chatzisarantis, & Biddle, 2002). Choices can help students feel empowered and responsible for their own learning and performance. Stressing choices helps student increase outcome values and enjoyment (Xiangli, Solman, Zhang, & Xiang, 2011).If students can feel more responsible and independent in BICs, they may not only enjoy the course but also increase their intentions to make positive future decisions to exercise.

Students appear to enjoy participating in physical activity when they have high levels of self-confidence and positive perceptions of their abilities to perform tasks successfully (Green, 2004). Consistent with the SDT category of "competence", the instructor was encouraged to help students improve their skills, ideally leading to greater enjoyment. If students feel more competent in performing an activity, they may be more likely to engage in that activity in the future. Likewise, when they have opportunities to improve their skillfulness and game sense in the BIC, they may be more likely to enjoy participating now and in the future. This practice can increase their feelings of ownership of learning and participation.

Persuasion/role modeling practices. Students may respond positively to instructor's persuasive messages emphasizing the benefits of physical activity, Further, an instructor's willingness to model physical activity participation by joining in as a player in class activities may also increase students' future intentions to be physically active (Taymoori & Lubans, 2008). The practices under this category centered on the instructor acting as a role model and persuading students to consider the benefits of physical activities to health, social, and enjoyment goals. When instructors participate with students in BIC sport, it can be influential in increasing their enjoyment. This was the basis for the first practice, Instructor Participation. This form of role modeling emphasized that instructors "practice what they preach" and may influence students' future intentions (Lubans, Morgan, & McCormack, 2011).

In the second practice, Stressing Health Benefits, the instructor stressed the health-related benefits of exercise, such as improved cognition, mood, stress relief, and decreased risk for chronic diseases. Instructors can communicate psychological and physiological benefits of physical activity to students, emphasizing both current and future benefits (Ayers & Martinez, 2007). Students may realize the importance of physical activity as it relates to their future health and well-being, perhaps influencing their intentions for future exercise.

In the third practice, instructors are encouraged to communicate their own passions and physical activity approaches to students. Using examples of past experiences that show the instructor as an active member of the community may

influence students' beliefs in their own ability to engage in future physical activity (Sanderson, 1995). Further, instructors are encouraged to model energy and enthusiasm in an effort to encourage students to engage and "get excited" about physical activity within BIC lessons. This can increase students' future intentions to be physically active by helping them to realize that activities are more enjoyable or important than they think. This can influence their perception and positive experience in the class, which, in turn may lead to future physical activity.

Instructor Training

Before the instructor implemented the FPP, she met with the researcher to review the Future Practices Training Manual (FPTM) and discussed each instructional practice and the data collection protocols used in the study. The researcher provided copies of the Future Practices Checklist (FPC) and reviewed examples of each practice as applied in her soccer BIC. The instructor answered questions to ensure she felt comfortable with the program.

The Future Practices Training Manual. The FPTM is a training manual for BIC instructors to use to familiarize themselves with the FPP. The researcher reviewed the FPTM (see Appendix B) with the instructor to confirm that she could effectively plan and implement the FPP. The purpose of the FPTM was to teach the instructor how to accurately use the FPP for the experimental BIC in this thesis research.

The FPTM consisted of three parts that explain the Future Practices in detail and provided instructions for using the Future Practices Checklist (FPC) and Instructor

Journal. In Part I of the manual, I introduced the FPC and encouraged the instructor to generate examples of ways they can implement each FPC practice in their soccer BIC. The instructor then created an implementation plan to use each FPC practice. The implementation plan included a table projecting when each practice would be implemented (Lesson #) and the task or activity in which she planned to implement the Future Practice. The protocol encouraged the instructor to use her own ideas to plan and visualize when and how she would implement each FPC and encouraged her to use each FPC practice at least once over the three lessons.

Part II of the FPTM encompassed the creation of the Community Aspect Assignment (CAA), included under the Community future practice of "Locating Opportunities for PA." In this section, the instructor was advised to think of an assignment that she could give to her students that would raise awareness of physical activity opportunities in the community. The researcher chose to give the instructor freedom in designing this assessment because it gave her the opportunity to create her own assignment, gaining additional ownership of the practice. The instructor shared her assignment format and prompt with the researcher prior to implementation. The researcher agreed that the assignment would adequately initiate future thoughts and intentions toward physical activity. The assignment included in Appendix C guides students to research and report on soccer resources in their communities, such as parks, gyms, and leagues.

Part III of the FPTM included training about the Instructor Journal template. The instructor referred to the FPC and table of lessons she completed in Part I of the manual to complete the first three items of the journal template. The manual then guided the instructor to answer the remaining questions based on her own perceptions, beliefs, philosophy, and observations. The instructor was reminded to focus specifically on the Future Practices, discussing how she used and how students reacted to each practice. The instructor used the journal template to write detailed descriptions and perceptions of lesson events. The final question asked the instructor to reflect on ways she might teach the lesson differently in the future.

During instructor training, the researcher discussed other data collection protocols, such as the timing of the PAIAQ and BIC Self-Survey, interviews and researcher observations to permit the instructor to plan her course accordingly. The researcher discussed the PAIAQ and BIC Self-Survey with the instructor and they collectively decided on the date and time for the researcher to administer the questionnaires to her students. The Future Practices Training Manual strengthened the reliability of this study because future researchers can access the training and data collection protocols to implement FPP. The FPTM is included in Appendix B.

Data Collection

Data from six sources were collected in this research. These are the Physical Activity Intention Adherence Questionnaire (PAIAQ), The BIC Self-Survey (BICSS), student interviews, lesson observations, the instructor journal, and the Future Practices

Checklist (FPC). The data were collected in a specific order, presented in the Data Collection Timetable, to limit the reactivity effects of some data collection methodologies.

Data Collection Timetable

In Table 1, below, is a timetable displaying the order of data collection and protocols for this thesis project. After receiving IRB approval, I trained the instructor using the training manual to collect data and implement the Future Practices in her soccer BIC. I administered the PAIAQ prior to the Futures Practices program and the instructor administered the PAIAQ again at the end of lesson three. I interviewed students after the final Future Practices lessons in each BIC. The researcher collected the instructor journal entries when the FPP ended. The instructor also met with the instructor after lesson one to view and talk about her progress in implementing all the FPC practices. The researcher conducted one lesson observation in both BICs during lesson one to compare the instructor's presentation with and without the FPs.

Table 1.

Data Collection Schedule.

Note: L = lesson

Research Task	Before L1	L 1	L 2	L 3	After L3
Instructor Training Meeting	x				
PAIAQ test-retest reliability	x				
Introduce program collect student assent		x			
PAIAQ Experiment Group		x		x	
PAIAQ Comparison Group		x		x	
Instructor implements PIC		x	x	x	
Instructor completed journal		x	x	x	
Soccer Observation		x			
Volleyball Observation		x			
Student interviews					x
Collection of Instructors' journals					x
FPC check		x			x

Physical Activity Intention Adherence Questionnaire

I modified the PAAQ questionnaire to better assess students' future physical activity intentions. I named this modified questionnaire, the Physical Activity Intention Adherence Questionnaire (PAIAQ). I chose not to use the PAAQ (Corbin et al., 2003) because it was limited to only three possible responses for each factor. Students could only respond "very true," "somewhat true" and "not true," with each response worth 3, 2, or 1 point. Conversely, the PAIAQ included a five-point Likert scale with responses that covered a wider range of perspectives. The modified scale used in the PAIAQ was similar to the scale used by Boyce, Lehr, and Baumgartner (1986) to examine perceived student outcomes of BICs. These authors used 15 stated outcomes with responses ranging from "not beneficial (1)" to "very beneficial (5)" with "neutral" being rated as 3. Matell and Jacoby (1972) examined the ideal number of alternative Likert scales and concluded that the usage of uncertain item scores (less confident responses) decreased as the number of Likert responses increased. When more responses are available it is possible to cover a broader range of information. An increased scale range can provide more accurate information and more confident responses from students. Therefore, the PAIAQ used the Likert scale from 5 Strongly Agree, to 1, Strongly disagree while keeping "Neutral" as the central anchor.

Additionally, unlike the PAAQ, the PAIAQ asked students to respond by writing an "x" in each box. Because the PAIAQ did not ask students to score their own questionnaires, this decreases their reactivity to the responses and limits their ability to

make adjustments based on the pre-instruction questionnaire. When students score their own questionnaire as in the PAAQ, they may be more likely to select answer that result in a higher score. The PAIAQ attempted to minimize these concerns by not revealing the numerical value of each item or the students' total scores during the questionnaire administration. In this research I calculated student scores and did not disclose scores to respondents.

Further, the PAAQ does not include a "future" subcategory, limiting its usefulness to measure future intentions. Although the PAAQ attempts to elicit future physical activity through the "Reinforcing factors scale," none of the statements directly asks students to consider after graduation physical activity. Therefore, the PAIAQ was created for this study to measure university students' intentions to participate in future physical activity using the "Future" category. Additionally, it also increased the range of responses, used more specific language, and decreased the potential for student reactivity. A copy of the PAIAQ can be found in Appendix D.

In the PAIAQ the added "Future" category is comprised of 4 statements that examined students' future PA post-graduation plans. These statements directly inquire about post-graduation PA and therefore, may elicit more accurate student intentions. The first item, "After college, I will be at least as physically active as now", addresses students' motivation level in participating in physical activity after college, gathering information on their confidence in staying or being more active after graduation . Item 2, "I will have adequate resources for physical activities after college", focuses on the

resources students believe they will find after college to increase their physical activity. This item examined students' perceptions of community resources. The students may have perceived this as money-related so the researcher clarified the statement to community resources during distribution of the survey. The third item in the Future category, "I am confident in my ability to find people to engage in physical activity with me after college", addressed students' future physical activity with others after college. The final Futures category item, "Participation in this course has increased my intentions for future physical activity", focused on the BIC and the influence it had on future intentions. This item investigated the extent to which the BIC and FPP influenced students' future intentions to participate in physical activity.

Examining the Reliability of the PAIAQ. The BIC Physical Activity Intention Questionnaire (PAIAQ) is a modified version of the Physical Activity Adherence Questionnaire (PAAQ) that was used in this study as a pre and post instruction measure of student intention. Since this instrument had not been used before, I examined the PAIAQ's test-retest reliability by administering the PAIAQ twice with a one-week interval to students in a basketball BIC. Scores from the first test were compared with the retest scores for reliability. The researcher used the Pearson's correlation coefficient to measure the strength of linear dependence between two variables (Rogers & Nicewander, 1988). The correlation was not strong at $r = .534$. The researcher also used Chronbach's alpha to measure internal consistency for both the pre- and post-surveys. Results indicated that internal consistency for the first set was strong as indicated by an

alpha of 0.752 (N = 18). The results of the post-test were not as strong yet the strength of the pre-test suggests the PAIAQ was reliable to use for measuring intentions of future physical activity.

The PAIAQ was intended to measure students' attitudes and beliefs toward their own future activity patterns. During the thesis research, the PAIAQ was administered to all students in the beginning soccer and volleyball courses prior to implementation of the FPP in the soccer BIC and again after the FP program was completed at the end of lesson three. This enabled the researcher to investigate changes that occurred in student intentions for future physical activity as a result of the FPP.

I administered the PAIAQ and read the directions for completion. I worked with the course instructor to explain that participation in this research did not affect their grade and answers were kept anonymous. Students appear more likely to give more candid responses if they believed the results will not be shared with their instructor (Drever, 1995). Students signed consent forms before completing the questionnaire and the researcher expressed that the students' honesty in their responses was important. Instructions were included with the questionnaire in Appendix D. Due to another obligation; the researcher had the instructor distribute the questionnaires at the end of lesson three and had students place their surveys in an envelope that was then given to the researcher later that day. The researcher created a script for the instructor to use when distributing the surveys which reiterated honest responses and no effect on the students' grades.

Measuring SDT's Three Psychosocial Needs

There is an expectation that PE should foster and promote physical activity participation beyond the boundaries of the PE curriculum (Sallis et al. 1995). Examination of students' intentions to engage in physical activity in their free time can help determine the likelihood of future exercise habits. Standage, Duda, and Ntoumanis (2003) examined self-regulation styles in PE in seven categories: origin climate, motivational climate, autonomy, perceived competence, relatedness, motivation, and leisure time physical activity. Three of the categories, autonomy, competence, and relatedness, were of particular interest in my research and will be discussed in more detail in the next paragraphs. Standage et al., (2003) developed a SDT related survey by compiling aspects of previously used surveys. They developed the inventory to assess students' future intentions from their fulfillment of the three psychosocial needs in SDT.

Standage et al. (2003) examined students' motivation for leisure-time physical activity relative to autonomy, competence, and relatedness in middle school PE classes. The researchers distributed a multi-section survey to 328 students aged twelve to fourteen years old. The inventory included seven sections with three representing the three SDT psychosocial needs. Specifically, in the survey section, they measured "autonomy" using five items derived from previous research assessing perceptions of autonomy in PE and various life domains (Blais, Vallerand, & Lachance, 1990; Ntoumanis, 2001). Students responded to the five items with the stem, "In this physical education class:." Examples of items include, "I can decide which activities I want to practice" and "I feel that I do

PHYSICAL ACTIVITY because I want to." All items pertained to autonomy or the amount of choice and ownership each student had in their physical activity behaviors.

Standage et al. (2003) measured "competence" using five items from the perceived competence subscale of the Intrinsic Motivation Inventory (McAuley, Duncan, & Tammen, 1989). The inventory was adapted by rewording the items to target the PE context rather than sport. These items addressed students' self-perceptions of their ability to engage in physical activity effectively and regularly. Examples of items included, "I think I am pretty good at PHYSICAL EDUCATION" and "I am pretty skilled at PHYSICAL EDUCATION." "Relatedness," or the development of connected relationship with others, was assessed using five items adapted from the acceptance subscale of the Need for Relatedness Scale (Richer & Vallerand, 1998). The Need for Relatedness scale was originally developed to measure the need for relatedness in the workplace, but Standage et al. (2003) modified the stem to read, "With other students in my PE class I feel:." Examples of the five items are "Supported," "Understood," "Listened to," and "Valued." All three psychosocial needs were assessed using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). They concluded that the survey items were valid and reliable measures of middle school students' self-perceptions of the SDT psychosocial needs because they relate to students in exercise settings. They examined the survey using descriptive statistics and reported alpha coefficients of α = .81 for autonomy, α = .85 for competence, and α = .91 for relatedness.

The three psychosocial needs items in SDT and the Standage et al. (2003) survey are relevant to the FPP used in this research because each of the FPC practices is based on one or more of the psychosocial needs. For example, autonomy can be associated with giving student's choices under the enjoyment category, competence is linked to peer teaching or raising awareness of outside class physical activity resources, and relatedness can be associated with the social interactions inside and outside of class time among peers.

BIC Self-Survey

I selected the items representing the psychosocial needs from Standage et al.'s (2003) survey to measure university student needs in the two BIC classes in my study. This survey, called the BIC Self-Survey (BICSS; Appendix E), measured each student's fulfillment of the three psychosocial needs from SDT (autonomy, competence, relatedness). The BICSS is a 15 item survey with five items corresponding to each of the three psychosocial needs. The researcher used the exact item wording in these three categories (Standage et al., 2003) with two exceptions. First, I modified words in the "competence" items, changing "PHYSICAL EDUCATION" to "PHYSICAL ACTIVITY". Since college students will likely not take additional BICs after graduation, the term "physical activity" reflected a broader range of activities and encouraged students to think about more than just one activity or sport. Second, I changed the relatedness item stems to read, "With the other students in this Basic Instruction Course I feel:" to better reflect the university BIC experience.

A separate score was computed for each BICSS section (autonomy, competence, or relatedness) comprised of the five items based on the 5-point Likert scale. In the BICSS, items one through five represented autonomy; six through ten, competence; and eleven through fifteen, relatedness relative to physical activity. The BICSS used a five-point Likert scale as opposed to a seven-point scale (Standage et al., 2003) for consistency with the PAIAQ and to avoid confusion for students when they completed both surveys.

In the current research the BICSS was administered twice, at the beginning and end of the FPP. Changes in BIC scores provided additional data to evaluate the FPP. The BICSS was distributed immediately after the PAIAQ at the beginning of lesson one and at the end of lesson three in the FPP. To help ensure that students were unaware of focus on survey scales, there were no labels on the psychosocial needs.

Community Aspect Assignment

The previously mentioned Future Practices Checklist (FPC) involved a practice that requires a community-based assignment. The instructor agreed to include a community assignment during the data collection period. Students in the soccer BIC were required to complete the Community Aspect Assignment (See Appendix C) before the end of lesson three.

The Community Aspect Assignment (CAA) detailed how students used resources such as the Internet, flyers, referrals, and previous experience to identify PA resources in the community. The assignment prompt was open ended. This allowed students to

describe soccer opportunities in more detail, further clarifying their thoughts through writing. This also encouraged creativity and independent thinking as students could be honest and provide unique answers. The instructor created the CAA to raise students' awareness of places to exercise outside of class and the university. The instructor assigned the CAA to her students on lesson one and allowed one week for students to complete the research and write the report. She collected a hard copy of the report during lesson three.

Interviews

In addition to completing the PAIAQ, private individual interviews were conducted with two students in each course in the basketball gymnasium at the conclusion of the FPP. Students were selected based on the change in their total PAIAQ score from pre to post. The students from each class who demonstrated the greatest positive PAIAQ score change were interviewed. These students were interviewed to provide insights into which practices increased future intentions and to explain FPP practices that raised their PAIAQ score.

The researcher also interviewed one student from each course who demonstrated zero or negative change from pre to post scores on the PAIAQ total scores. The purpose of interviewing these students was to ask why they were unaffected by the FPP and what Future Practices could influence their future intentions. It is likely that students with different previous experiences may have responded differently to some FPP practices.

Therefore, interviews from several students were used to confirm the extent to which a FPP practice was/was not useful in increasing their future exercise intentions.

The interviews consisted of a semi-structured list of initial and probing questions (see Appendix F). A semi-structured interview was selected because of its potential to enhance understanding of the ways the FPP influenced future intentions for physical activity. All questions were tailored toward student perspectives of BICs, their interpretation of the FPC categories, and how instructor practices affect their future exercise intentions. The researcher calculated all students' total PAIAQ scores for both BICs and then emailed students targeted for interviews (positive and negative change in PAIAQ scores) to request an interview. All students agreed to meet at a time outside of class in the gymnasium to conduct the interview with the researcher which lasted approximately fifteen minutes.

Lesson Observations

I collected observation data in a lesson taught using the FPP and in the comparison BIC. I assumed the role of a non-participant observer (Patton, 2002) and collected jottings (short notes of what occurred) that I later elaborated into field notes (Emerson, Fretz, & Shaw, 2011). I asked the instructor where to sit so that I could hear instructor and student comments and moved as necessary to stay near participants. I observed one lesson in each BIC and also checked the instructor's Future Practices Checklist sheet after lesson one to monitor teacher fidelity to the FPC and confirm that the instructor used all possible Future Practices in their lesson.

As a non-participant observer, I focused on the behaviors and speech of both the instructor and the students during the lessons. I jotted down what the instructor said and where in the classroom she said it. I monitored her movement/positioning and implementation of practices from the FPP. I also noted her verbal expectations or focus of the lesson such as the main idea of a task stated by the instructor. This was valuable in gaining an understanding of class context for instructional practices. Additionally, I focused on students' physical engagement in tasks and games, their competence in tactics or skills, their social interactions, informal conversations, responses to teacher's questions, comments, or instructions, and their facial expressions. I monitored my personal perspectives and biases and made a descriptive record of instructional practices and student responses, respectively. I recorded my thoughts, opinions, and biases on a separate back page of my notebook so that my ethnographic notes recorded a descriptive account of events in the lessons.

Instructor Journal

A viable data source for collecting the instructor's perceptions on the use of the FPC practices and her success in the lessons was to ask her to record comments and reflections in a journal. The instructor followed the journal template (see Appendix G) for each lesson taught. The purpose of the journal entries was so the researcher would be able to monitor what occurred in the lessons in which he was absent, and confirm that the instructor implemented FPC practices as intended in her lessons plans. The use of teacher logs or journals can be beneficial in assessing the quality, effectiveness, and views of a

curriculum when used across a variety of classrooms (Rowan, Camburn, & Corretti, 2004). Since this research examined future practices in a sport BIC, teacher journal entries provided an effective validity measure because the instructor's unique perspectives and knowledge were obtained. The journal also allowed the instructor to record her reactions, fidelity, and feelings toward her lessons as they related to the FPC. Therefore, the researcher obtained the instructors' perspective on events that occurred during each lesson in addition to observation and interview data. The instructor completed three journal entries during the data collection period. She recorded journal reflections following every lesson.

The instructor journal template included a table in which the instructor recorded her responses/reflections to the questions for each lesson. The first question addressed the overall topic of the lesson (i.e., passing, spacing, shooting, etc.) and which tasks the students engaged in. The second question asked which FPC practices she implemented and the third question addressed the tasks or activities she used in association with the practices. This was included to help the researcher understand the context in which each FPC was used with regard to organization and pedagogy. The fourth item asked the instructor how she knew that students understood the idea or point of each FPC practice used. The fifth item reads, "In what other aspects of the lesson could you implement the same or another FPC practice?" This initiated a thought process to encourage the instructor to reflect on how she could have further maximized the FPC practices used in the lesson. This reflection was included to help the instructor learn and discover ways to

implement additional FPC practices in future lessons and/or use the same FPC practice multiple times in one lesson. Because some practices may be best implemented in specific situations, the final journal question asked the instructor what they would change about each FPC practice they used. This was useful in revising the Future Practice's program. The final question asked the instructor to reflect on what she would change about the lesson just taught relative to the FPC practices, and how she perceived her lesson. This was the instructor's opportunity to record concerns and opinions on the FPC practices themselves and how they could be better implemented in the future to increase student intentions for physical activity.

Validity Measures

Several strategies were used in this study to increase validity. Each strategy was employed to increase data accuracy and focus on the research question. Specifically, I wanted to make sure information presented reflected BIC practices and students' intentions of future physical activity.

Interview Comfort/Direction

To reduce bias, students were not informed of my purpose to increase their intention to pursue physical activity after graduation. Instead, I informed them that I am studying how different instructors teach lessons in BICs. Students were informed that their responses would not affect their grade. The students should have felt safe during the interviews. The interview may be more effective if conducted in a conversational form (Kvale & Brinkmann, 2008). I attempted to build rapport with students immediately

before the interview by talking with the student about personal interests and advising them that the interview is simply a conversational method to find out what they think about their BICs. I believe I was successful in gaining the students' confidence and trust in the interview process.

Researcher's Personal Statement - Perspective/bias/history as a researcher

As the researcher in this study, I have several biases and perspectives on BICs based on my background in physical education pedagogy. I graduated with a bachelor's degree and K-12 certification in teaching PE from a large research-based public institution in the Midwestern United States. While a student I learned and practiced teaching using the sport education model. As a student I worked to improve my awareness of resources, social, and skill competence to become more confident to engage in physical activity outside of class and later in life.

In addition to being well-versed in the sport education model, I have studied pedagogical practices including strategies such as types of management (behavior, equipment, time, and space), maximizing practice or play opportunities, quick transitions, and feedback.

I also have taught BICs including beginning golf and beginning and intermediate basketball. My experiences in kinesiology classes and settings encouraged me to emphasize the relevance of sports and skills outside of physical education. Although I believe enjoyment is certainly an aspect of PE for students, it should not be the main

focus. My philosophy is centered on lifelong physical activity through the development of physical and social skills that will have long-term benefits.

Data Analysis

PAIAQ

The total PAIAQ score is 80 possible points (16 statements multiplied by 5 points per item). The higher the total score, the more likely a student will adhere to and have future intentions for exercise. The total PAIAQ score was calculated by summing the students rating on the16 items. Residual adjusted changes were tested for between-class effects. Data were combined for the overall analysis of intervention impact. The second step included a repeated-measure analysis which pooled pre- and post-instruction scores using MANOVA Hotelling's Trace approach. The means and standard deviations of the pre- and post-intervention scores were calculated. The final step included follow-up univariate repeated measures analyses to assess the impact of the Future Practices Program (FPP) on students' future intentions (PAIAQ).

BIC Self-Survey

The BIC Self-Survey was analyzed by totaling the five item scores in each section (autonomy, competence, relatedness). Based on the five-point Likert scale, the scores in each section ranged from 5-25. Section scores were not summed for a total survey score because the total survey score would not have reflected the extent to which each need affected future intentions. Further, because PAIAQ reflected a total score for each student, using three section scores on the BIC Self-Survey helped the researcher both to

understand the factors that may have influenced the PAIAQ scores and to know which future practices were and were not effective. The soccer or volleyball students' pre and post total section scores were differentiated by class. The same statistical analysis used for the PAIAQ was conducted for autonomy, competence, and relatedness scores from pre-post tests in each BIC. Hotteling's test and follow-up univariate measures were used in addition to the multivariate repeated-measures analysis. This enabled the researcher to examine the change from pre- to post-test for students in both classes with regard to autonomy, competence, or relatedness.

Analyzing Interviews, Observations, and Journals

Student interviews, lesson observations, and teacher journal comments were triangulated to support themes that arise from the study. Open and axial coding (Strauss & Corbin, 1990) were used to generate dimensions and properties of the practices and their influence. Open coding involves organizing and creating categories based on trends in the data and the knowledge/background of the researcher (Pitney & Parker, 2009). The researcher identified salient ideas related to events, instructional practices, or statements he or the instructor had observed or reported in the journals in addition to topics students discussed in the interviews (Strauss & Corbin, 1998). In qualitative research designs, the researcher is the research instrument and uses his knowledge and perspective to organize quotes, statements, observations and other data into one or several categories generated by the researcher. The researcher used the ten Future Practices as the categories in this study. Data from the observations, journals, and interviews were categorized into one or

several of the FPP practices. The researcher identified specific properties or dimensions of each category/practice as they relate to students' PA beliefs and intentions.

Axial coding is an extension of open coding used to make connections between categories and subcategories (Pitney & Parker, 2009). Open coding helps the researcher evaluate which data characteristics are most prevalent and important for the research question. Axial coding can clarify ways in which the created categories are related to one another to create themes and a better understanding of how they are developed. The researcher examined each of the categories from open coding and attempted to understand how the categories related to one another by examining quotes, observations, and journals to create themes. The researcher broadened his understanding of the settings, sport BICs and the FPP more abstractly and creatively from examining the various ideas from open coding (Emerson et al., 1995). Themes emerged as data were triangulated and compared across data sources associated with future intentions of PA from the FPP. These themes explained the data relative to the FPP practices while articulating meaning from participants' perspectives to their PA intentions after graduation. The themes provided insight on how the FPP can promote future PA intentions.

The final step in the qualitative analysis included selective coding. Selective coding refers to the final stage of data analysis to be completed after core concepts emerged from the data categories through open and/or axial coding. During selective coding, previously identified discrete concepts and categories are further defined, developed, and refined and then brought together to tell a larger story (Mills, Durepos, &

Wiebe, 2010). Selective coding is the stage in data analysis where core concepts are identified, and then abstracted, yet empirically grounded theory is generated. The FPP practices and themes were related to the three psychosocial needs of SDT to understand the motivational aspects underlying students' future PA intentions from the FPP.

The researcher triangulated several data sources to support FPP practices that can be influential in increasing future intentions for physical activity in addition to how they were implemented. Triangulation means your findings can be supported from a variety of data sources (Patton, 1999). Conclusions were drawn from assimilating the PAIAQ and BIC Self-Survey results with the categories and themes that emerged from triangulation of data sources (observations, interviews, instructor journal). Categories and themes were generated and supported from more than one data source.

CHAPTER IV

INSTRUCTIONAL PRACTICES THAT INFLUENCED STUDENTS' FUTURE PHYSICAL ACTIVITY INTENTIONS IN TEAM SPORT BASIC INSTRUCTION COURSES

Although there is growing support for physical and mental benefits of physical activity (PA), some universities are not embracing their own research as indicated from an all-time low in offerings of university Basic Instruction Courses (BICs) (Cardinal, Sorenson, & Cardinal, 2012). This is alarming because university scholars endorse the PA benefits and availability of BICs, yet university requirements and opportunities for students to enroll in BICs are decreasing. This in addition to current obesity trends (Brownell, 2012) and the decline in PA engagement from high school to college (Nelson, Gortmaker, Subramanian, & Wechsler, 2007) increase the importance of students' engagement in PA during and after college. The most accepted ways to battle obesity may be to eat a healthy diet and be physically active. A physically active lifestyle has been shown not only to help reduce or maintain weight but also to have other benefits, such as decreased stress, promotion of social skills, improved cognition, and decreased disease risk (Berger, 1996; Warburton, Nicol, & Bredin, 2006). Influencing students' intentions of PA in university BICs can help improve quality of life and exercise habits after students leave the college setting.

University BICs offer a form of college physical education where students can acquire knowledge and develop skills to participate in PA. Kim & Lee (2010) confirmed the potential value and influence of BICs on students' PA intentions and highlighted the need for future research in BICs. This thesis research examined university BICs with greater emphasis on student perspectives than in the Kim and Lee (2010) study. The Theory of Planned Behavior (Ajzen, 1985) suggests that students' intentions of future PA are a predictor of students carrying out their exercise plans after they complete the BIC. Understanding college students' intentions of PA after college based on their experiences in university BICs can align with the primary goals of public health in the U.S. These goals may lead to increases in both individual lifespan and the quality of those added years by encouraging the development of healthier lifestyles (Corbin, Welk, Corbin, & Welk, 2006). The design, development, and growth of BIC programs around the U.S. also can benefit from this research. Examining students' future intentions of PA in university BICs is important with regards to America's current obesity trends (Wang & Beydoun, 2007). Influencing a physically active lifestyle after graduation can help improve students' long-term health. University BICs can play a role in combating sedentary behaviors as an agent of change (Sparling, 2003).

This study examined the extent to which university team-sport BICs (soccer and volleyball) increased students' likelihood and intentions to be physically active after graduation. Sport-oriented BICs can differ from individual or fitness BICs that may be perceived to have more direct fitness health value long term. The Future Practices

Program (FPP) examined in this research can be delivered in a few lessons and flexibly implemented by BIC instructors. This research highlights how students understand and value sport BICs as an avenue to promote their intentions of future PA. It has potential to contribute useful information to the field of kinesiology and to the implementation of future-oriented instructional strategies in BICs.

The purpose of this research was to examine instructional practices in university BICs that increased students' future intentions to engage in PA. The research question that guided this study was, "What instructional methods can BIC instructors use to increase students' intentions to participate in PA after graduation?" The instructor of these BICs implemented specific instructional practices developed by the researcher representing four categories of "Future Practices." These practices were developed as a result of a pilot study conducted in BICs. Data were collected to determine the effectiveness of these instructional practices to influence students' future intentions to exercise.

Conceptual Framework

Motivational Theories

This thesis research was based on two motivational theories that appear to influence students' future intentions of PA after graduation. Self-Determination Theory (SDT) is a motivational theory that explains one's motivation from self-perceptions and fulfillment. A cornerstone of SDT is self-regulation or the principle that a person will continually engage in a behavior because of the influences and fulfillment of three

psychosocial needs (Deci & Ryan, 1985). These three needs are autonomy (doing something out of regularity/familiarity/choice), competence (belief that one can perform the action well), and relatedness (social support/gains). SDT also presents several types of motivation along a continuum ranging from intrinsic to extrinsic (Deci & Ryan, 1985). Individuals with intrinsic motives carry out behaviors for internal satisfaction such as interest, enjoyment, value, and care, while those with extrinsic motives are regulated from external rewards or gains such as grades, money, and others' opinion.

The second motivational theory providing the conceptual framework for this research is the Theory of Planned Behavior (TPB). This theory assumes that intentions are the strongest predictors of actions (Ajzen, 1985). The factors that influence intentions often are enjoyment, attitude toward the behavior(s), and social gains. One plans behaviors based on reasons underlying their intentions and the implications of their actions. These theories are interrelated because SDT assumes optimal motivation when autonomy, competence, and relatedness are fully met and the TPB states one's future intentions are influenced by positive or negative attitudes toward a behavior as well as confidence in being able to carry out the behavior (perceived competence).

College Students' Physical Activity Intentions

When considering students' future PA, it is important to consider intentions (Marshall & Biddle, 2001). Students' intention to engage in PA in the future is the strongest predictor of their actions. The motivation and outcomes for students' intentions are influenced by their perceived support for the psychosocial needs in SDT and the

strength of their intentions. Factors such as enjoyment, social support, environment, and confidence are underlying aspects of intentions that can be connected with one or more of the three SDT psychosocial needs. If the SDT needs are fulfilled and the predictors of intentions are strong, the likelihood of a student engaging in PA in the future is high. It is important to understand what instructional practices can be implemented in BICs related to the TPB predictors and students' SDT psychosocial needs, that may then increase their future intentions of exercise.

PA habits during the young adult years are likely to be important influences on habitual PA during overall adult life and, consequently, have significant implications for long-term health outcomes (Leslie, Sparling, & Owen, 2001). The increased independence that college students adopt before graduation can assist them to join the "real world." In this instance, planning future behavior can help students' maintain and execute their future exercise plans. Sparling (2003) explained that college BICs are an "unrecognized agent of change" in combating sedentary behaviors. The author highlighted the potential impact of BICs on PA promotion as largely unrecognized by much of the American population. BICs can make important contributions in the primary prevention of inactivity-related chronic diseases. Increased awareness of community PA resources and effective implementation is needed to strengthen college BIC programs and their impact on students' future PA (Sparling, 2003).

Kim and Lee (2010) demonstrated the impact that BICs can have on students' future PA intention. They examined 264 students' intentions for lifestyle adherence after

completing university BICs taught in South Korea. Students who enrolled in BICs as electives at the university were focused on improving basic skills in sport through practice. The courses met once a week for 100 minutes. Students completed the Physical Activity Adherence Questionnaire (PAAQ) at the beginning and end of the semester. Choi (2004) concluded the PAAQ was a valid measurement of physical activity adherence based on representative items and internal consistency. In the Kim and Lee (2010) research, the statistically significant differences from the pre-and post-tests suggested that BICs can increase PA intention by assisting students to focus on their own exercise planning and self-assess their sport ability. The authors recommended that future researchers collect data on the amount of time, frequency of meetings, and practices used in BIC courses to better understand the influences of BIC instruction on students' intentions to adhere to PA (Kim & Lee, 2010). However, the researchers provided no information about the teaching strategies used in the BICs that may have led to changes in students' intention to exercise. Therefore, this research examined four instructional practices, described as Future Practices that might be used to increase students' intentions to participate in PA after college.

Methods

Participants and Setting

The participants in this study were forty-one undergraduate students and their instructor in a beginner level volleyball and soccer BIC. The settings were a gymnasium and soccer field, respectively, at a large public university in the southeastern United

States. The researcher trained the BIC instructor to implement the FPP in her soccer BIC (intervention). She did not implement the FPP practices in her volleyball BIC (control group) for the one week intervention. The FPP was implemented in three lessons across a one-week period at the end of the semester.

Two students in each BIC were selected for interviews based on their total PAIAQ scores on the pre- and post-test. The researcher gathered one student who's PAIAQ score changed more than any other student in the class and one student whose score did not change. Morgan was an African-American female senior majoring in kinesiology who's PAIAQ score increased from a sixty to an eighty on the post-test in the soccer BIC. Jessie was the other soccer student who scored a sixty-four on both PAIAQ tests. She also was an African-American female senior majoring in kinesiology. The volleyball student who reported the greatest PAIAQ total score change was Brad, a male African-American sophomore majoring in biology who increased his score from seventy-one to seventy-eight. The other volleyball student, Lauren was a Caucasian female senior kinesiology major who scored a sixty-six on both PAIAQ tests. Interviewing one student whose score changed and one whose scores did not in each class helped the researcher identify what the instructor did in each BIC that did and did not influence their future PA intentions.

Future Practices

The Future Practices Checklist (FPC; Thesis, Appendix A) included ten instructional practices that were implemented at least once during the intervention. The

instructional practices are divided into four categories that research (e.g., Carlson & Hastie, 1997; Lubans, Morgan, & McCormack, 2011; Ward & Lee, 2005; Xiangli, Solman, Zhang, & Xiang, 2011) suggests can influence students' future intentions of exercise. I identified the future practices in a pilot study conducted at the same university examining the extent to which university BICs influence future PA.

Social interactions. The first category of the FPP is "Social Interactions." Any discussions, gestures, instruction, or dialogue with classmates can be defined as social interactions within the physical education environment (Carlson, & Hastie, 1997). This category consisted of three practices instructors can use to assist students to construct meaningful relationships between PA and their lives and communities (Azzarito & Ennis, 2003). In the first practice, team affiliation, instructors organize students in small teams or groups encouraging teams to select team colors, goals, and "home field/court" to build a sense of ownership and affiliation. In the second practice, peer teaching, students provide instruction, offer feedback, and guide classmates' skill performances based on instructor prompts. Peer teaching can be very influential in motivating and engaging students (Ward & Lee, 2005). In the third practice, instructors encourage and provide opportunities before, during, and after the lessons for social interactions. Students are encouraged to collaborate with their classmates before or after class time.

Outside class involvement. In the second FPP practice category, "Outside Class Involvement," instructors discuss PA resources on and off-campus. Instructors encourage students' to begin thinking about the role of PA in their lives after graduation (intentions)

and to begin planning ways to maintain or increase future PA levels. The first practice involves instructors mentioning PA facilities on or off-campus. In this practice, the instructor verbally tells students about places they can participate in exercise outside of class, such as the rec center (on-campus) and the YMCA (off campus). The second practice focuses on life after college. The instructor stressed that students will not be in college forever and suggested students explore PA options they can use in the future. The final practice in this category entails a Community Aspect Assignment (CAA) where students are required to research and explore various places in the university community where they can play soccer and then write a short paper describing how they might use these resources after college. In this research the instructor created the CAA herself with guidance from the researcher. The purpose of this instructor's CAA was to guide students as they searched for opportunities/locations to participate in soccer PA in the community. This task provided an opportunity for students to experience the search process in new cities once they relocate after graduation.

Enjoyment. The third Future Practices category was labeled "Enjoyment" and included the instructional practice, student choices. In this practice, instructors give students choices of activities, groups, or teams. Choices are crucial for enjoyment since they allow some freedom/independence for the student (Xiangli et al., 2011). Giving students' responsibility for their learning in this way can influence their value for BIC content and intentions for utilizing BIC skills in the future.

Persuasion/role modeling. The fourth FPP category, "Persuasion/Role Modeling," includes teacher support and modeling of PA participation. These practices may contribute to improved student outcomes for sport BICs and future exercise (Lubans et al., 2011). The first instructional practice in this category is instructor participation with students in drills and/or game situations. In the second practice in this category, stressing health benefits, instructors explain mental and physical health benefits of PA, such as decreased disease risk, improved mood, cognition, weight loss, and stress relief. Instructors can emphasize exercise health-related benefits in their courses to influence future PA (Ayers & Martinez, 2007). The final practice in this category involves instructors communicating their passions and knowledge of PA behavior by stating examples of previous personal experiences or actions that are particularly meaningful or relevant to them. This practice also may contribute to students viewing the instructor as a role model and advocating for future PA. This practice may persuade students that they can successfully participate in future PA.

Data Collection

Data sources for this research were student questionnaires (instruments) and interviews, researcher lesson observations, and instructor journal entries.

Instruments. The researcher measured students' intentions for future PA by administering the Physical Activity Intention Adherence Questionnaire (PAIAQ), adapted from the Physical Activity Adherence Questionnaire (PAAQ) (Corbin, Welk, Lindsey, & Corbin, 2003). The PAIAQ is a 16-item questionnaire, (Thesis, Appendix D)

and uses a 5-point Likert scale to measure students' future intentions to exercise and likelihood of exercise adherence. The instrument was adapted for this research by the addition of four items addressing future exercise intentions. The researcher also modified an instrument originally used by Standage, Duda, & Ntoumanis (2003) to create the BIC Self-Survey (BICSS; Thesis, Appendix E), that measured students' self-reports of fulfillment of the three psychosocial needs from SDT (autonomy, competence, relatedness). The BICSS used in this research is a 15-item survey with five items corresponding to each of the three psychosocial needs. Students completed the PAIAQ and BICSS at the beginning of lesson one and at the end of lesson three to assess changes in their intentions to be physically active.

Interviews. The researcher also conducted semi-structured student interviews with two students (Morgan, Jessie) in the soccer BIC who had experienced the future practices program and two students (Brad, Lauren) in the volleyball BICs who had not. The interviews lasted approximately 15 minutes and were conducted in the university's gymnasium where these BICs were taught. In each class, the researcher selected a student (Morgan and Brad) from each BIC course who had the greatest PAIAQ positive total score change and a second student (Jessie and Lauren) who's PAIAQ total score did not increase from pre- to post-test. These four students helped the researcher gather perspectives of PA intentions that did or did not increase from the FPP and insights about the instructional practices used in the BICs that did or did not lead to changes in the PAIAQ score changes.

Instructor Journal. After teaching the FPP practices, the instructor responded to a series of written probes to provide additional information/reflections about the lesson. She also included her impressions on the lessons, the FPP, and her perceptions of students' intentions.

Data Analysis

Data from the two instruments were analyzed in a three-step process. First, residual adjusted changes on both outcome measures (PAIAQ, BICSS) were tested for between-class effects. Because between class effects were not significant (no significant difference in class means), data from both classes were combined for the overall analysis of intervention impact. The second step included a repeated-measure analysis that pooled pre- and post-instruction scores using MANOVA Hotelling's Trace approach. The means and standard deviations of the pre- and post-intervention scores were calculated. The final step included follow-up univariate repeated measures analyses to assess the impact of the Future Practices Program (FPP) on students' future intentions (PAIAQ) and fulfillment of autonomy, competence, and relatedness from the BICSS.

In addition to the quantitative survey analyses, qualitative analysis techniques of open and axial coding were used to examine data sources. Student interviews, lesson observations, and teacher journal comments were triangulated to support themes that evolved from the study. Open and axial coding (Strauss & Corbin, 1990) was used to generate dimensions and properties of the practices and their influence on students' PA intentions. Open coding involved the FPP categories based on trends in the data and the

knowledge/background of the researcher (Pitney & Parker, 2009). In qualitative research designs, the researcher is the research instrument and uses his knowledge and perspective to organize quotes, statements, observations and other data into one or several self-generated categories. Open coding helped the researcher evaluate which data characteristics correlated with the FPP and which Future Practices were most prevalent and important for the research question.

Axial coding is an extension of open coding used to make connections between categories and subcategories (Pitney & Parker, 2009). In this research, axial coding clarified ways in which the categories were related to create themes and a better understanding of students' future PA intentions. The researcher examined each of the categories/practices generated from open coding and attempted to understand how the data related to the FPP by examining quotes, observations, and other data sources to create themes. Themes emerged as data were triangulated and compared across data sources associated with future intentions of PA from university BICs. These themes explained the data relative to the FPP practices that were meaningful from participants' perspectives. The themes provided insight into how the FPP promoted future PA intentions.

The final step in the qualitative analysis included selective coding. Selective coding refers to the final stage of data analysis completed after core concepts emerged from the data categories through open and/or axial coding. During selective coding, categories and themes generated in this research were compared with the research

literature examining SDT and TPB theories. Previously identified discrete concepts and categories were further defined, developed, and refined and then brought together to tell a larger story (Mills, Durepos, & Wiebe, 2010). Selective coding is the stage in data analysis where core concepts are identified, abstracted, and grounded theory is generated. The FPP practices and themes were related to the three psychosocial needs of SDT to understand the motivational aspects underlying students' future PA intentions from the FPP.

Results

Quantitative Analysis

Table 2 reports the residual adjusted change scores on all outcome measures for the soccer (Future Practice condition) and volleyball (Comparison condition) class. There were no significant differences between class means.

Table 2.

Descriptives of Residual Adjusted Change Scores on Outcome Measures between Classes

	N	PAIAQ M / SD	Autonomy M / SD	Competence M / SD	Relatedness M / SD
Soccer	20	-.16 / 1.04	.19 /1.07	.05 / .92	.22 / .89
Volleyball	21	.15 / .96	-.18 / .92	-.05 / 1.09	-.21 / 1.07

The results from the MANOVA analysis displayed no statistically significant differences between classes on the PAIAQ and BICSS (Wilks λ=.85, F=1.58, p=.20 with equal

variance assumed: Box's *M*=9.50, *p*=59). The lack of statistically significant changes in the PAIAQ and BICSS scores suggested the need for modifications to future sport BIC programs to implement instructional practices that will influence students' future intentions of PA.

The above results, however, suggested the possibility that students in both classes' changed at a similar pace on these measures. To test this hypothesis, a repeated-measure analysis was conducted on the pooled pre- and post-instruction scores using MANOVA Hotelling's Trace approach. The means and standard deviations of the pre- and post-intervention scores are reported in Table 3.

Table 3.

Pooled Means and Standard Deviations of Pre- and Post-Instruction Measures (N=41)

	Pre-Instruction M / SD	Post-Instruction M / SD
PAIAQ	72.50 / 5.86	74.59 / 6.17
Autonomy	19.73 / 4.40	20.44 / 4.82
Competence	21.34 / 3.02	20.95 / 3.55
Relatedness	19.44 / 3.29	20.90 / 3.08

The result from the Hotelling's Trace test indicated an overall statistical significance (Hotelling's Trace=.46, *F*=4.34, *p*=.006). The follow-up univariate repeated measures

analyses showed that the students' scores in both classes positively changed on the PAIAQ and Relatedness (BICSS), but that the FPP program did not impact Autonomy and Competence (BICSS). The results of the univariate measures are displayed in Table 4.

Table 4.

Results of Univariate Comparisons on Pooled Pre- and Post-Instruction Scores

Variable	Greenhouse-Geisser Adjusted Type III Sum of Squares	*p* value	Effect Size (Partial η^2)
PAIAQ	90.20	.004	.192
Autonomy	10.20	.336	.023
Competence	3.12	.443	.015
Relatedness	43.90	.003	.200

Results indicated that the students in both classes, as one group, increased their scores on PAIAQ and Relatedness significantly. The results can be understood as evidence suggesting that in both classes, students' attitudes toward PA positively changed, as did their way of relating to people in PA settings.

Qualitative Analysis

Researcher Observations. The researcher observed one lesson in each sport BIC and noticed several differences. The instructor did not use the FPP practices in her

volleyball course, utilizing more of a scrimmage format. Conversely, in her soccer course, she included peer feedback specific to tasks and games. The students' responses and the instructor's fidelity of FPP implementation are discussed below.

Volleyball. The instructor did not implement the FPP practices in her volleyball BIC although she did great tasks involving gameplay as would be expected in this sport BIC. The researcher's observation of lesson instruction and student responses indicated, "… no mention of outside class involvement, instructor participation, or persuasion in this lesson. The students seemed to enjoy gameplay with their smiles, laughs, and clapping (after points)". The researcher also noted that while some students appeared to talk briefly to each other before and after class, most entered and exited class without talking to any classmates. The instructor also took a reserved role in her engagement in the lesson, "The instructor has a volleyball in her hand and is standing in the middle of the gym observing both games, but not providing feedback during gameplay" (Volleyball Observation). The instructor did not actively participate with students in this lesson. The instructor did gather the students at the end of the lesson for a short discussion, "She asked what went well and what did not go well for the teams…The students seemed disengaged and responded, "Communication." (The instructor) made no mention to collaborate with peers outside of class, health benefits, or life after college" (Volleyball Observation). The instructor's feedback during the volleyball lessons encouraged more strategy and technique and did not mention health or fitness concepts:

> The instructor gathered the class in a circle at the end of the lesson and asked students about things they could have done to improve their teams' performance in the games such as passing and setting. There was no mention of health benefits or involvement outside of class. (Volleyball observation)

The students seemed disinterested in class discussions and appeared to recognize their lack of peer feedback during gameplay. The students also seemed unaware of health benefits and outside PA resources available.

Soccer. The instructor implemented the FPP as prescribed. She used each FPP practice at least once and the researcher observed differences in the soccer BIC when compared to the instruction provided during the observed volleyball lesson, "The instructor explained, "Give feedback to your partner on what they could work on to improve their skills" (Soccer Observation). This was not emphasized in the volleyball BIC, nor did the instructor focus on life and PA after college. Students appeared to be more sociable in soccer than in volleyball before and after class, "The students enter the field and place their belongings against the fence, talking to each other about miscellaneous things before the instructor starts class. These included weekend plans and other classes they were enrolled in" (Soccer Observation).

One similarity between the classes was the enjoyment students appeared to associate with gameplay, "...Students started to smile, laugh, and yell as soon as the passing game started" (Soccer observation). This was similar to the volleyball BIC in that students seemed to enjoy gameplay. However, the soccer students appeared to be more sociable during gameplay than the control group:

> As students play, there is interaction between the students. “Pass it behind you, one more time!” The students seem to enjoy the game and are talking during gameplay. “Behind you!” “Lead me!” students said to their teammates regarding defenders approaching them and passes. “Right here!” “Quick touch!” “Move it around the cone!” Students are instructing each other on what they should do with the ball. Students were executing more passes successfully as the game went on. (Soccer Observation)

The soccer students appeared to be more socially engaged during their game situations and responded well to peer feedback. The instructor did not implement the health benefits or outside class involvement practices in the observed lesson. However, the instructor did display some passion in her class closure discussing a tactical breakdown, mentioning “this can help you when you play in the future.”

Student Profiles

Students were selected for interviews based on their pre- and post-PAIAQ score change. A total of four students were interviewed with two from each BIC. Each student was unique and shared their perspectives on the BIC and their future PA intentions. Their demographics and scores from the PAIAQ and BICSS are displayed in Table 5.

Table 5.

Interviewed Student Profiles.

					PAIAQ		Aut		Comp		Rel	
	Gender	Yr	Major	Race	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Brad	M	Soph.	Bio.	AA	71	78	15	21	22	20	18	19
Lauren	F	Senior	Kin.	Cauc.	66	66	22	20	22	20	19	20
Morgan	F	Senior	Kin.	AA	60	80	20	25	19	21	19	20
Jessie	F	Senior	Kin.	AA	64	64	21	20	20	20	19	19

Brad. The volleyball student that reported the greatest PAIAQ total score change was Brad, a male African-American sophomore biology major who increased his score from seventy-one to seventy-eight. His autonomy score increased from fifteen to twenty-one. His competence score decreased by two from twenty-two to twenty on the post-BICSS while his relatedness score increased by only one point (eighteen to nineteen). Brad expressed that he was not required to take a BIC because he was not a kinesiology major.

Lauren. Lauren's PAIAQ total score did not change from the pre- and post-PAIAQ with a score of sixty-six. She was a Caucasian senior who majored in kinesiology. Her post-PAIAQ score was the lowest in the volleyball BIC. She reported a decrease in both autonomy and competence BICSS scores from twenty-two to twenty. Her relatedness score increased by one from nineteen to twenty on the post-BICSS.

Morgan. No one in the soccer BIC reported more of a PAIAQ score change than Morgan, whose PAIAQ total score increased from sixty to eighty on the post-test. She was an African-American senior majoring in kinesiology. Her autonomy score increased from twenty to twenty-five on the post-test. Morgan's competence score increased by two (nineteen to twenty-one) and her relatedness score increased by one (nineteen to twenty). Morgan's PAIAQ score change was greater than any of the volleyball students.

Jessie. Jessie was an African-American senior who majored in kinesiology. Jessie's post-PAIAQ was the lowest in the soccer BIC and did not change from her pre-PAIAQ score total (sixty-four). Her post-BICSS autonomy score decreased by one for a score of twenty while her competence score remained at twenty for both BICSS tests. Jessie's relatedness score also stayed the same at nineteen for both tests.

Future Practices Program

Although the FPP was influential with some instructional practices, it appeared that other aspects of the FPP did not impact intentions. Specifically, the FPP Student Choices practice (Enjoyment category) did not seem to increase students' intentions when compared to the volleyball class. The FPP enjoyment practice, however, may influence students' PA intentions with more time or exposure to the practice. Another possible influence on the effectiveness of the FPP enjoyment practice was the limited number of interviews. Interviewing additional students to gain perspectives or generate discussions, and perhaps discussing this practice with students in focus groups could have differentiated the autonomy and choices in the FPP from the control group.

The FPP did influence students' future intentions in three categories: social interactions, stressing life/opportunities after college, and instructor role modeling. The instructor journals and lesson observations in the soccer BIC supported the effectiveness of these FPP practices. The interviewed students also provided insight on FPP practices that influenced or could have influenced their future PA intentions. These practices are described as categories below.

Social Interactions. The social interactions category of the FPP entailed discussions, gestures, peer instruction, and dialogue among classmates within the BIC environment (Carlson & Hastie, 1997). The three practices under this FPP category, team affiliation, peer teaching, and instructor encouragement, elicited social interactions with classmates. Social interactions in the BIC setting can be influential in increasing students' PA intentions after college (Allender, Cowburn, & Foster 2006).

Team Affiliation. The instructor implemented the team affiliation FPP practice by grouping students in teams for at least two of the three lessons to provide students with a sense of belonging to and ownership with a team. For example, team affiliation appeared to enhance Morgan's feelings of comfort, "I also liked how she put us into teams towards the end of the semester so we got to play in the same team a couple times" (Soccer). The instructor stated how the team affiliation during her soccer class seemed to increase students' enjoyment and physical and social engagement, "…It looked like the students were understanding the FPP practice, because the majority of the students came to class in their teams' designated colors and seemed more active and interested when I started

playing with them in the games" (Journal three). The effectiveness of team affiliation in BICs to increase engagement, ownership, and enjoyment is well noted in the literature (e.g., Spittle & Byrne, 2009; MacPhail & Kirk, 1995). A sense of belonging and affiliation to a group or team identity may influence future exercise.

Peer teaching. The instructor implemented the FPP "Peer teaching" method in all three lessons, the researcher observed:

> For the instructor's introduction she told students to dribble and pass to a partner as he or she moved up the field…The instructor explained, "Give feedback to your partner on what they could work on to improve their skills." The students found a "lane" to pass and moved up and down the field with their partner. The students passed back and forth at a slow jog pace. The instructor is going from group to group, emphasizing discussions of what could improve. Students are providing feedback to each other after about two minutes. The instructor emphasizes, "long" "short" and "speed" as examples of feedback topics. The topic of feedback seems to focus on the skill of passing. (Soccer)

Peer teaching seemed to give students freedom to provide feedback and experience instruction from people other than the teacher, creating a socially inviting environment. The instructor also noticed this and commented:

> I walked around the field while students were having discussions with their partners/teams and they appeared to be on task. I heard plenty of "one more pass," "good pass/touch" and "over here" types of quotes from students in the games and drills today. (Journal one)

These forms of social interaction aligned with Garn, Ware, and Solmon's (2011) research that emphasized that teachers can use peer affect to influence student motivation for

future PA. Peer teaching appears to be an influential practice for increasing students' PA intentions.

Instructor encouragement of social interaction. Prior to and following the soccer class period, students continually interacted with each other. Jessie commented, "You get more comfortable with the students and the instructor after games…and I usually would talk to my teammates for a little bit after class which was cool" (Soccer). This could be a product of the FPP practice where the instructor reminded students they can get together before, during, or after class to socialize. Morgan added, "We played a lot of games and talked and joked…I think the games helped everyone get to know each other a little bit" (Soccer). Morgan described her comfort and the effect game situations had on her social interactions. This could have influenced students to build relationships outside of class time. McHugh (1995) recognized PE as a unique setting for stressing social skills and collaboration. Stressing social interactions before and after class may expand upon the BIC setting. If students are able to meet new people and build friendships from BICs then they may pursue future PA using social gains as a motivator.

Outside Class Involvement. The outside class involvement practices category included three practices that encouraged student involvement and awareness outside of the course. Students shared their perspectives on these practices in addition to the instructor journal entries. These practices raised student awareness of soccer resources and reminded students of life after college.

Mentioning Facilities On or Off-campus. Morgan was particularly pleased when the instructor used the FPP that highlighted places to exercise on- and off-campus:

> Because, like, if you learn a new sport, you might want to go out and find, like, soccer or baseball leagues that you could join to help out after you graduate and stuff and keep your skills up and engage in after school and I know (the instructor) said something about the YMCA. (Soccer)

Morgan noted that the instructor mentioned the YMCA as a resource for future PA and she indicated that using these resources could be part of her future exercise plan. When asked what BIC instructors could do to influence future PA intentions, Brad (control class) explained, "I think it would be better if (the instructor) said something about more places to exercise at UNCG and in Greensboro" (Volleyball). Although the instructor did not use this practice in the volleyball BIC, Brad explained that it could have raised students' future PA intentions. Farrell and Thompson (1999) highlighted the impact collegiate intramural programs can have on students' PA behaviors. Stressing intramurals as well as other on-and off-campus resources could be a feasible and successful method for engaging students outside of class.

Life After College. The instructor stressed that students will not be in college forever and initiated students' thoughts about their exercise habits after graduation. Morgan explained that it may be hard for students to realize the importance of PA resources in the community setting when she said, "It's hard to see when you're in college" (Soccer). This statement is consistent with the results from the pilot study. Results of the pilot study indicated that students do not consider PA resources after

college while they were still enrolled in a BIC. Life after college was not a focal point of the instructional BIC practices. During this thesis research, the instructor implemented this future practice during lesson two. “After the health discussion, I reminded everyone that they will not be in college forever and need to think about exercise more for the future. I saw some students nodded their heads in agreement it appeared” (Journal two). This FPP practice may have encouraged students like Morgan to anticipate life after college and their intentions of exercise after graduation.

Locating Opportunities for PA/CAA. The CAA future practice encouraged soccer BIC students to explore places to play soccer in the community. Morgan expressed her increased awareness of available soccer resources:

> I know for assignments, (the instructor) did have us do like a research paper. You had to go out and find like soccer leagues or places to play other than at school. And I didn’t know about all these soccer leagues in Greensboro…Maybe not assign a research paper but maybe, like, [assign] an activity where you go visit different places like High Point and present what you learned. (Soccer)

Prior to the CAA, Morgan was unaware of the prevalence of soccer resources both on and off campus in the university community. This FPP practice can be effective in increasing students’ future PA intentions. Increasing awareness of PA resources in the community can be an effective and important tool to raise adults’ PA behaviors (King, 1991). Students in the control class indicated that they would like to know more about outside opportunities to be active. Lauren added, “Maybe if the teacher gave us a list of places to play for free or cheap around Greensboro, that might be a bigger help” (Volleyball).

Jessie believed that an assignment such as the CAA would have been more influential for her future PA intentions if it was used in the volleyball BIC. Morgan and Lauren highlighted how the BIC instructor's CAA assignment of a task, presentation, and/or worksheet focused on increasing students' knowledge of PA resources in the community increased students' PA intentions after college.

Persuasion/Role Modeling. This FPP included three practices centered on instructor role modeling and persuasiveness in terms of their knowledge and passion of the BIC sport. This form of role modeling emphasized "practice what they preach" and may have influenced students' future intentions (Lubans et al., 2011). The instructor journal entries and student interviews provide insight into the effectiveness of these three instructional practices relative to students' future PA intentions.

Instructor Participation. This practice included the instructor's willingness to model PA participation by joining in class activities to increase students' future intentions to be physically active (Taymoori & Lubans, 2008). The Instructor Participation FPP practice was effective in the soccer class in increasing future intentions when implemented in game situations. Morgan explained, "…I liked that she actually played with us during games, and it helped me see how it was done (Soccer)." Morgan explained that she felt more confident in soccer from watching the instructor play with students in game situations. Jessie added:

> She participates with us when we play, so it makes it more enjoyable, and easier. You get more comfortable with the students and the instructor…. It shows, like…, it gets you more comfortable to do a certain activity. I think it's just all about attitude. Like if you engage with your students and participate with your student that's the big thing. Like, if you're…., instead of telling students what to do and how to do it and standing on the sidelines watching, just engage with the students in the activity. (Soccer)

The instructor's attitude seemed inviting and engaging with students. Jessie highlighted how much the students liked having the instructor join in the activity with them and felt they understood the game better as a result. If instructor participation leads students to feel more confident in their abilities and enjoy the class, they may be more likely to engage in PA in the future (Carroll & Loumidis, 2001).

Stressing Health Benefits. The instructor led a discussion on various mental and physical benefits of exercise intended as presenting new information (persuasion). The instructor reflected on her implementation of this FPP practice after lesson two:

> Before class ended, I asked the teams to come up with the health benefits of exercise and be able to give a couple of examples to the whole class. I also asked them to think about why it would be important to stay PA after the semester or college. Since many of the students were KIN majors, they came up with good answers, such as improved cognitive performance, increased self-confidence/self-efficacy, and improved cardiovascular health. No one mentioned PA as a stress relief, so I brought that to their attention and mentioned examples of how I like to use PA to relive stress, such as going for a run or playing volleyball. Most of them seemed to understand the importance of PA though. (Journal two)

The instructor felt that most students were already knowledgeable of most exercise benefits, such as cognition, reduced disease risk, weight loss, improved mood, and increased fitness levels. Students appeared to value that discussion and emphasized that

their engagement after college would focus more on fitness activities, such as walking, running, and weight training, and not so much soccer. Morgan explained:

> She did set up a talk about how physical activity helps out as far as in your life; your everyday life. And I really liked that and brought that home because it's like little things that you do, you don't think that is physical activity, but it really is. I lost weight since I enrolled in this class….Like vacuuming the floor. It doesn't have to be going to the gym it could be just walking a mile. Even though I still plan on doing those things instead of soccer. (Soccer)

Morgan also pointed out the health/fitness benefits of running and cardiorespiratory characteristics associate with soccer. The students who were kinesiology majors were likely to understand health benefits of other sports and activities and this can increase their intention of engaging in those activities after graduation (Ayers & Martinez, 2007). Morgan was able to apply her new knowledge of health benefits to her future exercise plans, while Jessie (no PAIAQ score change) did not display as much value or knowledge from the Stressing Health Benefits practice, "Because it's my major, and because it's better, well not better but more, I don't know. It's better to be healthy, so I guess you have to be physically fit or you have to be involved in stuff like exercise" (Soccer).

Interestingly, the volleyball student, Brad, explained that he desired more discussion of fitness and health benefits in their class:

> I think it would help if you mentioned health benefits. Not necessarily like making you do it. I think mentioning like "It would be better for you if you do this outside of class." As opposed to just doing it here. Because if you add your activities outside of class combined with what you're doing in class you're going to be significantly better. I'd say just enhancing, like, Okay, you did good and if you're working outside of class, you're going to be alright. (Volleyball)

Brad and his volleyball classmates in the control BIC did not receive the health benefits FPP. This quote displays how Brad's future PA intentions and PAIAQ total score may have increased more on the post-test if the instructor had used this practice in volleyball as well.

Passion and Enthusiasm. The instructor's passion and goals were communicated to students through the FPP practice of "Passion and enthusiasm." Morgan expressed that she admired the instructor's passion for PA and viewed her as a role model:

> I would like to follow in her footsteps, but not as far as playing soccer (laugh), but as far as like in life. She also is a grad student and has ambitions and goals, and I really like that in her. I feel comfortable following up with her for advice with exercise or anything after this class because she was passionate. (Soccer)

Instructor passion can influence future exercise intentions because students can see that the instructor engages in exercise and values PA. Students appear to feel comfortable including exercise as a part of their future goals as well. The instructor expressed that she thought the students' engagement increased because of her passion. "During the half time discussion I mentioned an example of a corner kick from my previous playing experience and the students appeared to be interested in my short story and tried to execute it during the game" (Journal two). The instructor displayed her enthusiasm for soccer from a previous experience and tried to relate it to her soccer students. The students' interests in soccer may have increased from this practice that can lead to future participation.

Jessie's Case. Although Jessie had the lowest PAIAQ score in the soccer class on the post-test, she still made several positive statements about the FPP practices relative to

future PA intentions. Jessie's post-PAIAQ score was 64, which was the lowest in the soccer class but a score of 64 is still a relatively high total score out of 80 possible points. She reported relatively high scores on the pre-BICSS and little or no changes on the post-BICSS. Her Autonomy score was the highest of her three SDT needs on the pre-BICSS and may suggest she already valued PA after graduation. Her post-BICSS scores were 20 for both Autonomy (M = 20.44) and Competence (M = 20.95), and 19 for relatedness (M = 20.90). All of her scores were below the means of both classes.

Jessie was a kinesiology major and may already have had experience or knowledge of soccer or PA behaviors (i.e. intramural sports). Jessie's intentions already could have been high and this is supported by her PAIAQ scores of 64, which is a high total score despite it being the lowest in the soccer BIC on the post-PAIAQ. Jessie's statements suggested she may have been enrolled mostly for social reasons (both BICSS relatedness scores were relatively high) or to get exercise as part of her weekly schedule. This may have indicated a negative case where the PAIAQ data differs from expectations that Jesse's future PA intentions would not be influenced from the FPP. The outside class involvement and health benefits FPP practices may have been less influential for Jessie as oppose to the FPP categories of social interactions and persuasion/role modeling. Jessie did not seem to realize the availability of the soccer resources or view PA after college as high a priority as Morgan, which may have contributed to her lack of PAIAQ score change. Jessie explained:

> Just being active. That's the main thing I got from this class. It's like participating in sports or participating in a certain exercise…Um. Sometimes she'll tell us to go for a run outside of class, but it's really up to the students to do it. (Soccer)

Although Jessie was less influenced than Morgan from the FPP, she knew continued PA engagement was important, but did not seem to comprehend the extent of the outside class involvement and specific health benefits from FPP practices. Perhaps a longer FPP would have changed her PAIAQ score positively on the post-test.

Discussion

The FPP seemed to influence soccer students' future PA intentions relative to gameplay, health/fitness, and feelings of comfort. The observations, journals, and interviews provided insight on the FPP practices and how they were or could be successful in increasing future PA intentions. The statistical analyses and FPP categories displayed relationships in data and three themes emerged and are discussed throughout this section.

Gameplay

The first theme that emerged was "Gameplay," representing scrimmage situations within a BIC lesson that can cater to future PA intentions. The Instructor Participation FPP practice appeared effective in the soccer class in increasing future intentions when implemented in game situations. Morgan explained how she gained the most out of the FPP Instructor Participation mostly with gameplay. The instructor reflected that students in her soccer class were more prone to participate in discussions with their teammates either during or at half time of a game than they were in Volleyball. She compared

discussions at the beginning or end of class that both she and the students described as "more forced" with only a few students participating:

> During half time, I had the groups discuss what was going well and what could be improved. After class, we debriefed from the game and students seemed to be more talkative and engaged during the half time discussion than they were at the end of class and the volleyball class in general. (Journal two)

Students naturally interacted with each other and enjoyed gameplay. The influences of gameplay appeared to foster student enjoyment, social interactions, skill development, and drill applications. Although game situations were not a Future Practice, gameplay related to FPP categories of Social Interactions, Enjoyment, and Persuasion/Role modeling.

Enjoyment. All interviewed students and the instructor in the BICs highlighted how student enjoyment was a factor in game situations. Both interviewed students in the soccer BIC stated that one of the more enjoyable parts of the class was playing games. Jessie explained her experience with gameplay, "She [instructor] sort of gives you like a free kind of play. She isn't overbearing with the rules with like how to play. As long as you do it and at least put forth some effort that's what matters" (Soccer). She valued the freedom and flexibility the instructor provided when the students were in a game situation.

Morgan also said she liked the freedom and choices the instructor gave them to create teams and choose partners. This is not surprising because Morgan's BICSS autonomy score increased five points from pre- to post-test respectively. The instructor

explained, “I allowed the students to choose their group of three for warm-ups and the scrimmages today which the students received positively” (Journal two). Morgan confirmed this autonomy by stating, “…she also let us choose our partners and teams toward the end of the class which I thought was good since we already knew most of our classmates” (Soccer). This reflected the autonomy need principle within SDT that states students are more likely to engage in future exercise if they have ownership of their actions (Deci & Ryan, 1985). This sense of freedom can be tied to the FPP practice of Student Choices that was implemented during lesson two. The fact that autonomy was not significant from BICSS analysis could be a result of limited implementation. If the instructor gave students freedom and choices throughout the semester then students may have felt more autonomous at the end of the semester. The researcher also recorded many positive statements in field notes about game performance and body language, “...Students started to smile, laugh, and yell as soon as the passing game started” (Soccer observation). Enjoyment can lead to engagement in the same or other activities students may enjoy in the future (Kilpatrick Hebert, & Bartholomew, 2010). The enjoyment from game situations can influence future PA intentions.

The class’ changes in the PAIAQ quantitative analysis supported game situations as a method to elicit future PA intentions since both classes increased significantly. The lack of a class differentiation in PAIAQ data may have resulted from game situations that occurred in the volleyball BIC. Lauren explained, “The best are when we get to scrimmage within the class because it gets very competitive and just makes the game

more fun" (Volleyball). This is consistent with Kilpatrick et al. (2010) research that found that enjoyment was predictive of future sport participation; students explained they would engage in activities they enjoyed in the future. Making drills and peer teaching tasks in the FPP more game-like for the soccer BIC may have increased enjoyment and future intentions more than the control condition.

Social Interactions. In addition to enjoyment, game situations evoked more social interactions for the students. The researcher's field notes indicated:

> The students seem to enjoy the class and talk to each other more during gameplay than drills. The increased smiling and laughing that students do in scrimmages versus drills usually is a product of a some students yelling, whispering, or taunting (in joking manner) while the game is going on. (Soccer Observation)

The instructor's journal also emphasized social interactions when she heard more dialogue from the students during game play. This also highlighted how soccer students were active in their peer feedback during game situations. This is supported by the increase in the BICSS relatedness category. The FPP practice of Peer Teaching was implemented during all three lessons and appeared most abundant during game situations. Morgan added, "We played a lot of games and talked and joked…I think the games helped everyone get to know each other a little bit" (Soccer). The gameplay in the BICs evoked social interactions and may have explained the significant increases in intentions.

Skill Development/Drill Application. The students also viewed gameplay as a chance to display their skills and improvement from previous drills and games in the

BIC. Students' confidence for future participation was raised as a result of seeing their skills improve in game situations. Jessie explained:

> Yeah, like she wants you to do it and wants you to get help if you don't know how to do it so it's like she opens up of doorway so to speak…It gives you a chance to do certain things like play different positions and put it all together from drills. Like you know what you're supposed to do. (Soccer)

This highlights the application of previous tasks into gameplay. Jesse also mentions "getting help" if students did not know how to perform the skill or drill. This related to the FPP practices of Peer Teaching and Instructor Participation. The researcher observed:

> Two students walked over to the instructor after the ball went out of bounds. It appeared the students asked the instructor a question about kicking the ball lower. The instructor used her legs and arms to visually explain something to the students for a few seconds. One student appeared to have overhead the conversation and joined the group to demonstrate what appeared to be forward body leans while kicking. One student nodded her head and they walked back toward the space where the ball went out of bounds. The instructor yelled to the student who retrieved the ball that they could throw-in to continue play. (Soccer)

Morgan, whose PAIAQ score increased twenty points, addressed the different techniques and the progress she had made during the BIC:

> It was a lot of learning different techniques and I got to see my improvement in scrimmages mostly. A lot of soccer jargon that I really didn't know. I really didn't know [at first] but I got the opportunity to learn what they mean and how to perform different moves on the soccer field. (Soccer)

Developing sport content from various drills and applying it into authentic situations can increase students' likelihood of future engagement (Rink, French, Werner, Lynn, & Mays

1992). Game situations served as students' own evaluation or culmination of the previous drills and tasks in the class to assess their abilities for future PA.

Health/Fitness

The second theme that emerged from this study was "Health/Fitness." The FPP practices, specifically Persuasion/Role Modeling category, addressed students' values for PA and personal health both currently and in the future. Morgan explained how the health benefits discussion was influential for her future exercise plans and Brad expressed his desire for the practice in the volleyball course. Morgan also said, "I lost weight since I enrolled in this class" (Soccer). With Morgan's substantial score increase on the post-PAIAQ, the feeling and recognition of those benefits such as losing weight from a sport BIC may be very influential in increasing students' PA intentions in addition to educating students on the benefits. The instructor reflected that there were many opportunities to raise awareness of fitness concepts and health benefits in addition to an end of class discussion:

> I think using the health/fitness benefits discussion in more classes or as a bigger part of a lesson might make them more of a priority for students even if they are reminded of the mental and physical benefits. Especially for classes in the future which doesn't have this many kinesiology majors. (Journal two)

She felt that a benefits discussion would have a greater influence on future intentions if it were the main focus of one or more lessons across a semester. The students in both classes explained that they thought health would be one of their biggest issues after graduation and being active was one of the main topics they took away from their

participation in the BIC. This did not fit within the pattern of health impacting future intentions in just the soccer BIC, health benefits also were influential for volleyball even though they were not stressed from the FPP. This represents a negative case where the original pattern was skewed yet the construct of health/fitness impacting sport BICs is still defined (Patton, 2002). Brad (Biology major) expressed his desire for more knowledge of health benefits of exercise while Lauren (Kinesiology major) appeared to already be knowledgeable of health benefits. The FPP could have more influence if health and fitness was a greater focus of several lessons and the class as a whole.

Feeling Comfortable

"Feeling Comfortable" was the third theme that emerged from the journals, observations, and interviews related to instructional practices that increased future intentions for PA participation. The subcategories were peer feedback, confidence, team affiliation, and passion. Students appeared to express their intentions and perceptions of the FPP with underlying feelings of comfort regarding future exercise.

Peer Feedback. Students provided feedback to another with FPP Peer Teaching and collaboration opportunities such as games increased their comfort level within the BIC, motivating students to be physically active in the future. The students felt enough trust in their classmates to give each other feedback (peer teaching) and communicate freely during class activities and build friendships out of class. Morgan commented how peer feedback increased their comfort in talking to other students, she said:

> Yes, I see value because communication is BIG (laughs). You have to communicate. You know everybody even if you don't want to communicate you have to get your point across or to even like learn new information. I liked when we taught each other because we got to learn from more than just the teacher and get to know each other better. (Soccer)

Morgan addressed how students had the opportunity to teach each other as an alternative to receiving feedback from the instructor. The significant increase in relatedness may have resulted from students feeling comfortable not only to provide feedback to each other during the FPP Social Interaction practices but also to participate in various situations during a sport BIC lesson (i.e. gameplay). The FPP practice of Instructor Participation and the Outside Class Involvement practices may have also contributed to feeling comfortable with peer feedback because students could see demonstrations of feedback from the instructor and recognized places for more social interactions. Peer feedback may be most influential in increasing students' future PA intentions when students feel comfortable with each other (Marks & Byra, 1993).

Confidence. In addition to peer feedback, students' confidence improved with regard to physical and social skills and community awareness. Students increased confidence can influence their future intentions (Ajzen, 1985). Although the students expressed they may not continue playing volleyball or soccer in the future, they reported they intended to engage in physical activities they felt comfortable and competent in doing. Morgan expressed how she planned to engage in exercise after college but not soccer because she feels more comfortable with cardiorespiratory activities. Brad felt his skilled improved to where he plans to play volleyball in the future, "I think I would like

to try and play sand volleyball with my friends in the future. My skills have gotten better to the point where I can enjoy it and play with my friends" (Volleyball).

In addition to students feeling more confident with physical skills, the students were more confident to build relationships beyond the class. Morgan explained, "Even after class people talked to each other and we not only talked about soccer, we talked about everything. I even got some (phone) numbers to keep in touch out of class" (Soccer). Connecting with peers can be motivating for students to plan to exercise in the future (Biddle, Brehm, Verheijden, & Hopman-Rock, 2012). This is supported from the significant increase in the relatedness category of the BICSS for both classes, the social dynamic of sport BICs appeared to be influential for future intentions. The soccer students said and the instructor agreed that they were better prepared to play soccer after graduation from their experiences completing the CAA (Locating opportunities for PA FPP practice) and the instructor stressing facilities on-and off-campus. Morgan highlighted how she learned about opportunities for soccer at the YMCA and leagues while Brad explained he wanted to learn more about community resources to increase his confidence in outside class involvement. Lauren also expressed how highlighting places to play in the community may have helped increase her future intentions, referring to a possible list of places to play in the community that are inexpensive or free. The CAA and instructor stressing opportunities and life outside college can increase students comfort with future PA because they have a better understanding of the resources

available to them. Increasing students' physical and social confidence in addition to outside opportunities can help influence lifelong PA (Lee, 2004).

Passion. The instructor's passion for exercise in addition to the sport topic of the BIC appeared to influence students' comfort with future PA. The FPP practices of Instructor Participation and Passion and Enthusiasm seemed to increase students' comfort level with engaging during class and in the future. Morgan highlighted how she viewed the instructor as a role model and advocate for future PA. The instructor shared her passion from class discussions and engaging with the students, "I attempted to stress the great importance of exercise in the future in our discussion. I mentioned how important it is once they graduate and become busier such as graduate school" (Journal two). Jessie added how she felt more comfortable with the class when the instructor played with the students. Instructor participation made students feel more comfortable with everyone in class. The more comfortable students were in participating in a sport BIC the more comfortable they will likely be in engaging in the sport or other activities in the future (Carroll & Loumidis, 2001). Morgan explained how the instructor's attitude also impacted her future intentions, "I guess it's just the way she carried herself. She carried herself in a grown up outlook" (Soccer). She said how the instructor carried herself professionally and passionately, which was something Morgan could admire. The instructor's participation with the students during class seemed to influence future intentions for exercise from the instructor's own passion and demonstration. These conclusions can be related to Stathi & Simey's (2007) study that examined a six-month

exercise intervention with nursing home residents who valued routines, meeting other people, and more PA. The exercise instructor implemented practices while also engaging with the participants, ensuring that participants had fun in a supportive environment. The results of the current study highlight how the BIC instructor's passion and participation can increase students' future PA intention predictors (enjoyment, social support, autonomy) similar to the exercise instructor from the Stathi & Simey (2007) study.

Relationship to SDT

This research was grounded in the three SDT psychosocial needs of autonomy, competence, and relatedness. During the selective coding process, the researcher focused on relationships between themes generated in this research and those of other researchers and scholars discussed in the literature review to position these findings within the larger body of knowledge. This section addresses the findings of this study associated with the three SDT psychosocial needs and their relationship to future PA intentions.

Autonomy. Autonomy supportive climates in sport BICs may influence students' future PA intentions. Autonomy support is a powerful mechanism in student motivation because it facilitates behavioral regulation from an internalized desire to engage in PA (Perlman & Webster, 2011). Deci (1971) found that offering people extrinsic rewards for behavior that is intrinsically motivated, such as exercise, can undermine intrinsic motivation as they grow less interested in it. External rewards can undermine students' autonomy or ownership of actions. The FPP practices, Student Choices and Outside Class Involvement, addressed students' autonomy for future PA intentions. Allowing students'

choices in the soccer BIC can help create an autonomy-supportive climate. Increasing students' options and choices increases their intrinsic motivation to engage in a behavior (Zuckerman, Porac, Lathin, Smith, & Deci, 1978). If, instead, the instructor had hindered students' choices by requiring or rewarding students for participating, that could undermine their intrinsic motivation to exercise in the future. Perhaps the FPP needed to be longer or provide more student choices to increase student scores on the BICSS autonomy items. Once students complete the BIC, the instructor is not responsible for keeping students active for the class times or providing grades (extrinsic motivators). Students will need to motivate themselves to engage in future PA from autonomous practices such as the Outside Class Involvement practices.

An autonomy supportive-climate is one with a motivational style that offers students choices, encourages independent problem solving, involves students in the decision making process, and minimizes pressure (Sluder, Buchanan, & Sinelnikov, 2009). The Outside Class Involvement practices appeared to initiate students' future thoughts of exercise (Morgan) and independence after completion of the soccer BIC. The students researched different places in the community to play soccer that can have helped them be more independent exercisers after college since they will no longer be required to attend class or may not have collegiate PA resources available to them.

The instructor's expertise with the FPP Stressing Health Benefits practice can also influence an autonomy-supportive BIC. Students who learn the various health benefits of exercise may be more internally motivated to be physically active in the future because

they know exercise is good for them. The FPP adds to SDT autonomy research with specific instructional practices that can be implemented in sport BICs to increase students' intrinsically motivated future PA intentions.

Competence. Student competence was apparent from this study from the Peer Teaching practice of the FPP in addition to the improvements students made from the BICs. Students freely engaging in activities they found interesting and enjoyable, and which offered the opportunity for learning or task accomplishment. These behaviors characterize high levels of intrinsic motivation (Pelletier et al., 1995). Students can come into a BIC with a wide range of abilities and experiences. Some students may already be skilled soccer or volleyball players Brad, for example, highlighted how he felt the volleyball BIC improved his skills enough to play sand volleyball in the future. This may have been a result of the instructor's expertise in improving students' sport abilities through drill, progressions, and games. Students want to improve their skills from enrollment in a BIC and improving their skills can be influential for future PA engagement and enjoyment (Nicole et al., 2003). Brad's BICSS competence score decreased by two points on the post-test, despite his statements of volleyball improvement. This could have been a result of the BICSS assessing generic PA as opposed to specific volleyball skills. The FPP practices developed Morgan's competence and appeared to be influential for her future PA intentions because she stated how she felt better prepared for PA and her BICSS competence score increased by two points on the post-test. The FPP addressed social competence from the Peer Teaching practice while

also catering to physical skill development. Morgan appeared to be more confident in her social interactions and ability to engage in PA in the future from her increased knowledge of health benefits and outside resources. She stated that although she did not plan to participate in soccer in the future, she still plans to be active. This shows how the FPP's Outside Class Involvement and Peer Teaching practices can influence future intentions by improving physical skills, social interaction and skill competence.

Improving student competence is linked to lifelong participation in PA. The importance of game-centered pedagogy needs to be further explored (Morgan et al. 2006). Perhaps the FPP should have emphasized game-like tasks and practices with the soccer BIC to further differentiate pedagogy from the volleyball BIC. The increased comfort in an activity can motivate students to engage in the future because students have desires to improve their skills and understanding of an activity (Nicole et al., 2003). Instructors with expert knowledge of the essential skills necessary to improve students' performance and tactical thinking can assist students to increase their intentions for PA after college. Lauren and Brad stated how they enjoyed playing in scrimmages just like Morgan and Jessie. If the soccer class included more game-like drills, specifically with Peer Teaching, it can influence soccer students' physical competence and make drills more enjoyable. The application of drills into gameplay is important for increasing students' competence (McNeill & Fry, 2011). Although the FPP appeared to influence the social dynamic of the soccer BIC and increased Morgan's ability to exercise in the community, the skill development of the soccer BIC did not seem to differ from the

volleyball BIC. Improving sport skills in game-like situations as part of the FPP may have influenced the soccer students' competence more than the control group.

Relatedness. The social support provided by the soccer BIC occurred during game-like situations. Morgan explained that she enjoyed peer teaching and built new friendships. Students' inviting and encouraging attitudes led to trusting their classmates to give each other feedback (peer teaching), communicating freely during class activities, and building friendships out of class. Instructors should reflect on the link between activities and social relationships and the influence of friendships and social networks (Hillis, 2007). This can be influenced from the FPP practice, Encouraging Social Interaction before, during, or after class as supported from the soccer observation. The significant changes in the BICs from the relatedness category of the BICSS may have been a result of the relationships, interactions, and support among classmates. Peer support and accountability of PA from BICs can help influence students' likelihood of future exercise (Cox & Williams, 2008). The FPP Team Affiliation practice appeared to increase students' comfort and enjoyment in the soccer BIC based on Morgan and Jessie's statements relating to them being part of team. A sense of belonging to a team can help students' growth of social skills and desire to participate in team sports in the future (MacPhail & Kirk, 1995). Team sport BICs such as soccer, have a unique opportunity to use the FPP Team Affiliation practice to create a supportive and enjoyable environment for classmates that they can carry into the future.

The instructor journal entries and soccer observation displayed peer feedback as "less forced" and more natural in game-like situations. Both classes reported an increase in relatedness on the post-BICSS that may have resulted from game situations/social interactions. The qualitative data suggested that the FPP's peer teaching was most influential during gameplay. It may be important for BIC instructors to consider peer feedback to foster social support and trust in addition to improving a team or individual performance. Therefore, Peer Teaching can associate with students' future PA intentions and psychosocial fulfillment of competence (skill development/performance) and relatedness (social support). Peer Teaching may also affect autonomy because students reported they enjoyed game situations. The FPP seemed to influence a relatedness-supportive climate from the Social Interaction category practices.

CHAPTER V

CONCLUSIONS & RECOMMENDATIONS

Conclusions

Based on the results found in this study, the FPP was ineffective in producing statistically significant changes on the outcome measures (PAIAQ, BICSS) in the soccer BIC when compared to the control condition. However, both classes as one group displayed increases in the PAIAQ and Relatedness. Qualitative analysis displayed the influence of FPP practice categories on students' future PA intentions. The themes of gameplay, fitness/health, and feeling comfortable emerged that highlighted the impact of the FPP practices in influencing future PA intentions in sport BICs. This section highlights the researchers the interpretations of quantitative analysis and judgments of qualitative data.

Although no statistically significant changes were shown between classes on the pre-tests, the students' intentions for future PA (PAIAQ) and fulfillment of relatedness (BICSS) increased on the post-test. However, the FPP did not impact autonomy or competence measures on the BICSS. These results suggested that the instructor's most influential FPP practices were the Social Interaction practices as supported from the change in the relatedness category of the BICSS. Students in both classes reported high scores on both pre-test measures, indicating less room for increasing students' intentions

and psychosocial needs. This may have been a result of the timing at the end of the semester or the high enrollment of kinesiology majors. One week did not appear to be enough time to impact future intentions.

Flexibility & Enjoyment

The FPP seemed flexible for instructors to implement. The FPP practices were able to increase future intentions (PAIAQ score changes) and influenced students' psychosocial need for relatedness by fostering social support and development with no formal lesson plans. Both classes reported high levels of enjoyment from the interviews and field notes. According to Xiangli et al. (2011) choices can be crucial for enjoyment. However, the FPP Student Choices practice (Enjoyment category) did not seem to increase students' intentions when compared to the volleyball class. Based on the student interviews, the influential FPP practice categories appeared to be Social Interactions, Outside Class Involvement, and Persuasion/Role Modeling.

Impact of Health/Fitness

Health was recognized as an important issue by both soccer and volleyball students. The Stressing Health Benefits practice appeared to increase Morgan's future intentions while Brad expressed his desire for this practice. Kinesiology majors seemed to acknowledge this practice yet likely already valued and understood the health benefits from exercise. College students seem to realize that they should exercise and knew the importance of their health in the future regardless of whether they actually engage in regular PA (Keating, Guan, Piñero, & Bridges, 2005).

Community Aspect Assignment

The FPP practice with the most impact might have been the CAA. Morgan's knowledge and awareness of soccer facilities and how to find PA resources in the community appeared to increase her likelihood of future PA. Brad and Lauren both explained how they would have liked guidance for PA resources outside the college setting. The CAA only focused on the sport topic of soccer and where it could be played in the community. Students' intentions, autonomy, and competence may have been influenced more if the CAA had been revised or more applicable to a variety of PA settings.

Skill Development

A characteristic of effective BIC teaching was improving sport skills. Improved skill and perceived competence appeared to enhance students' confidence and abilities. Additionally, feedback and skill progressions seemed to increase students' sense of comfort with future participation. Students such as Morgan and Brad appeared to improve their soccer and volleyball skills and perceived competence. Gameplay seemed to be a motivational tool for the instructor to encourage more skill development and application, where utilizing gameplay with tasks can help influence enjoyment and future participation (McNeill & Fry, 2011; Morgan et al., 2006). Students appeared to interact with each other more during game situations. Peer feedback and teaching in gameplay seemed to create an inviting and friendly learning environment.

Recommendations

The results and conclusions from this study suggest future recommendations to BIC programs and instructors to impact their students' future PA intentions. The recommendations can broaden the field of kinesiology's understanding of the role of university BICs and their influence on lifelong PA that can contribute to maintaining or improving students' quality of life after graduation. This section will discuss recommendations for future researchers as well as future sport BIC programs that desire to increase their students' future intentions of PA.

The FPP may have had a greater influence on soccer students' PA intentions with a longer implementation period. This program was not able to impact intentions with a one week/ three lesson timeframe implemented at the end of the semester. Thus, one recommendation of this study is that the FPP program should be expanded to a full semester. The Future Practices have potential to impact students' activity intentions after graduation, and therefore should be implemented across the entire semester. It is also recommended that the FPP practices be implemented several times throughout the semester in a cyclical nature as oppose to only once. A greater dosage of the practices may prove to be influential on future PA intentions. Interview questioning may have provided more understanding of the FPP and student intentions if more students were interviewed and questions were tailored toward each FPP practice specifically. The students should have been asked why their scores did or did not change.

The only practice that impacted students during only one exposure was the CAA. The CAA, however, may be influential on future intentions by expanding its focus beyond the BIC sport (soccer) to emphasize a broader group of PA resources in the community. This can help students like Morgan who understood the value of the assignment, yet do not feel as comfortable with soccer as other physical activities. Another recommendation for the CAA is to allow students to focus the CAA assignment on their hometown or a city where they may live after graduation. This can increase their intentions and assignment value. The CAA also might be effective as a small group assignment and presentation to let permit students to collaborate and benefit from others' assignments, integrating others' ideas into their future plans. Another recommendation is for instructors to post different resources they found in the university community online in the form of a class webpage or online portal. This can help students complete the community assignment and raise awareness of opportunities outside of class.

The flexibility of the FPP also may prove feasible for instructors to implement into their course schedule with no formal lesson plans. It is important to sequence tasks for learning and create imaginative, useful environments that help students connect physical content meaningfully to their current lives (Ennis, 2008). BIC directors should support instructors with training on effective sequencing of skill progressions and FPP practice implementation. The Instructor Participation and Passion and Enthusiasm practices appeared to increase students' comfort in the soccer class. These practices should likely be implemented first followed by the Enjoyment and Social Interaction

categories. For example, instructors should help students to feel comfortable with each other *before* implementing peer teaching. Although this practice seemed to work well in this study, data collection occurred at the end of the semester and students already knew each other fairly well.

The FPTM should emphasize game situations with the Social Interaction practices because it increased student dialogue making it more natural and influential in this study. BIC instructors should focus on game-like tasks and drills to develop and apply sport skills (increase student competence). Training should also educate instructors on mental and physical health benefits of exercise so that they can implement the Stressing Health Benefits practice at several points in the semester. This content could emphasize short or long term benefits of exercise, such as improved movement, cognition, stress relief, fitness level, weight loss/maintenance, and decreased risk for diseases. Students who are not kinesiology majors enrolled in future BICs might find this practice informative. Directors also can meet with BIC instructors to encourage them to brainstorm ideas and expertise, such as increasing awareness of various gyms, parks, recreational leagues, bike paths, and other PA resources available to adults for the community-based practices. Instructors should stress life after college and lifelong PA with their students (Leslie et al., 2001). The collaboration among instructors of various sport and fitness areas may increase instructors' expertise and effectiveness in increasing students' intentions of future PA. Increasing sport and pedagogy knowledge may help increase instructors' expertise (Soukup et al. 2005).

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APPENDIX A

FUTURE PRACTICES CHECKLIST

Course: _____

Practice	L1	L2	L3
Social Interactions			
Team Affiliation: students in group for a season/tournament and/or have team name, goals, colors, home goal/net, etc. & use team roles (captain, scorekeeper, etc.)			
Peers teaching or aiding other students in a drill or game-like situation			
Instructor encourages social interaction before, during, or after class			
Outside Class Involvement			
Mentioning Facilities On or Off-campus: explain resource or facility for student PA (park, gym, YMCA, YMCWA, rec center, intramurals, etc.)			
Life After College: stress student life after class or college/graduation and PA options			
Locating Opportunities for PA: assigned Community Aspect Assignment. Turned in before end of the program.			
Enjoyment			
Student Choices: give students choice of engaging in a certain activity or choosing own group/team			
Persuasion/Role Modeling			
Instructor Participation: I participated or played in a drill/game situation with the students			
Stressing Health benefits: explain mental health-related benefits of PA (decreased disease risk, mood, improved mental performance, stress relief, etc.)			
Passion & Enthusiasm: I communicated my own passion and knowledge of PA behavior (used examples or actions)			

Note: L = Lesson

APPENDIX B

FUTURE PRACTICES TRAINING MANUAL

Directions: The following instructions are designed to prepare a university level basic instruction course instructor to effectively implement the "Future Practices" program to increase students' future intentions of physical activity. All instruction tools should be aimed toward influencing intentions of students after college. Think about ideas, activities, tasks, games, and examples that can be used beneficially for your sport area.

Part I – Future Practices Checklist

1. Obtain a copy of the **Future Practices Checklist (FPC)** and view the four categories of instruction and each proposed practice

2. Look closely at the **Social Interaction** category and the 3 practices, in the table below, write 2 examples of how each can be effectively implemented in your class:

Practice	Example/Idea 1	Example/Idea 2
Team Affiliation: students in group for a season/tournament and/or have team name, goals, colors, home goal/net, etc. & use team roles (captain, scorekeeper, etc.)		
Peers teaching or aiding other students in a drill or game-like situation		
Instructor encourages social interaction before, during, or after class		

3. Look closely at the **Community** category and the 3 practices, in the table below, write 2 examples of how each can be effectively implemented in your class:

Practice	Example/Idea 1	Example/Idea 2
Mentioning Facilities On or Off-campus: mention resource or facility for student PA (park, gym, YMCA, YMCWA, rec center, intramurals, etc.)		

Life After College: stress student life after class or college/graduation and PA options		
Locating Opportunities for PA: assigned Community-Related assignment to all students		

4. Look closely at the **Enjoyment** category and the practice, in the table below, write 2 examples of how each can be effectively implemented in your class:

Practice	Example/Idea 1	Example/Idea 2
Student Choices: give students choice of engaging in a certain activity or choosing own group/team		

5. Look closely at the **Persuasion/Role Modeling** category and the 3 practices, in the table below, write 2 examples of how each can be effectively implemented in your class:

Practice	Example/Idea 1	Example/Idea 2
Instructor Participation: I participated or played in a drill/game situation with the students		
Stressing Health benefits: stress mental health-related benefits of PA (decreased disease risk, mood, improved mental performance, stress relief, etc.)		
Passion & Enthusiasm: I communicated my own passion and knowledge of PA behavior (used examples or actions)		

6. Now that you have generated some ideas for the Future Practices Program as it relates to your course, plan 6 lessons in your course plan/semester where you will implement the **FPC**.

7. In the table below, map out which class/sport topics you will focus on in each of the 6 lessons, then insert which **FPC** practices you want to implement in each

lesson. Remember that each **FPC** practice must be used at least once over the 6 lessons and practices can be used more than once.

	L1	L2	L3
Topic(s)			
Activities /Tasks			
Social Interaction			
Outside Involv.			
Enjoyment			

Persuasion /RM			

8. Now you know which **FPC** practices you will implement and when. Be sure to check the practices off on the **FPC** after you have used them in a lesson.

Part II – Community Activity Worksheet

9. For the **Community: Locating Opportunities for PA** practice; you will be required to create an assignment intended to initiate future thoughts and/or intentions of exercise and educate your students on physical activity resources available on and off-campus in your city. You have freedom in creating this assignment and can grade or assess it as you see fit. The main guideline is to make sure students understand what a physical activity resource is so they can recognize them when they see or research them. Encourage students to elaborate how they can utilize the resources in multiple ways. In order to guide students to find resources for physical activity in the community, make sure the assignment mentions a few examples of resources such as parks, recreation centers, bike paths, etc. To experience what the students will be asked to complete, List a few physical activity environments in the city your university/college is located offers. Include Web links for each setting. You can research online, use flyers/brochures, refferals, and/or previous experience. One example that you could utilize is the YMCA or your city's parks and recreation department websites.

Facility/Resource	URL/LINK/ADRESS?

Part III – Instructor Journal

10. An important part of the Future Practices Program is to keep an **Instructor Journal**. You will do this by using the **Instructor Journal Template**. After each lesson,

answer the questions shown in the table. Your table you created in #7 of this manual will help you with the first 3 columns. The rest of your responses will be geared toward what you observed from the students and your own perceptions of the FPC implementation. Include your own thoughts, beliefs, observations, and rationale when possible. The final question serves as a tool to improve the lesson the next time you teach that topic. Focus on the FPC practices you used and changing the context or structure in which they were used. Try to reflect on each FPC practice at least once in your 2 journal entries.

APPENDIX C

COMMUNITY ASPECT ASSIGNMENT

Due: **Friday, May 3rd**
Length: 1-1.5 double-spaced pages
Format: 12-point font, Times New Roman, 1 inch margins.

Please turn in a **hard copy** by Friday the 3rd to me by 12:00pm on Friday. Papers are encouraged to be done and turned in early to avoid any problems.

Please cite your sources for any outside information and record web links and/or addresses for resources.

Grammar: Spell check on Word is not the end-all be-all of proofreading. I will count off from the total paper grade for flagrantly misspelled words and improper use of grammar.

Community Aspect Assignment- 10 points

- Research and explore opportunities in the Greensboro community for playing soccer. This could involve looking at websites, calling facilities, or visiting facilities to gain more information. What are some off-campus resources (parks, gyms, YMCA, etc.) that provide opportunities to play soccer either recreationally or on a team? For example, are there soccer leagues and when are they offered? Is there "free-time" for playing? Similarly, what are the on-campus resources that provide opportunities to play soccer?

APPENDIX D

PHYSICAL ACTIVITY INTENTION ADHERENCE QUESTIONNAIRE

Name: _____ Date:_____

Purpose: To better understand Basic Instruction Courses in the university setting.
Procedures:

1. Read the statements below and place an "x" under the most appropriate response for you: very true, true, neutral, not true, or very untrue.
2. DO NOT mark any other boxes or total any scores

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	
1. I am very knowledgeable about physical activity						
2. Physical activity is good for me						
3. I enjoy doing regular exercise and physical activity						
4. I am confident of my abilities in sports, exercise, and other physical activities						
5. I possess good sport skills						
6. I know how to plan my own physical activity program						
7. I have a place to do physical activity near my home or work						
8. I have the equipment I need to do physical activities I enjoy						
	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	
9. I have the support of my family for doing						

my regular physical activity						
10. I have many friends who enjoy the same kinds of physical activities I do						
11. I have the support of my friends & peers for participation in activity						
12. I have parents or significant others who encourages me to exercise						
13. After college, I will be at least as physically active as now						
14. I will have adequate resources for physical activities after college						
15. I am confident in my ability to find people to engage in physical activity with me after college						
16. Participation in this course has increased my intentions for future physical activity						
					Total Score	

APPENDIX E

BIC SELF-SURVEY

Read the sentence carefully and think about yourself. <u>Circle the number that shows how you feel.</u> There are no right or wrong answers. Be as accurate and honest as you can about your feelings.

Name:_____Date:_____

In this PHYSICAL EDUCATION class:

I can decide which activities I want to practice.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

I have a say regarding what skills I want to practice.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

I feel that I do PHYSICAL ACTIVITY because I want to.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

I feel a certain freedom of action.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

I have some choice in what I want to do.

strongly disagree	disagree	neutral	agree	strongly agree

1	2	3	4	5

I think I am pretty good at PHYSICAL ACTIVITY.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

I am satisfied with my PHYSICAL ACTIVITY performance.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

When I have participated in PHYSICAL ACTIVITY for a while, I feel pretty competent.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

I am pretty skilled at PHYSICAL ACTIVITY.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

I cannot do PHYSICAL ACTIVITY very well.

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

With the other students in this Basic Instruction Course I feel:

Supported

strongly disagree	disagree	neutral	agree	strongly agree

1	2	3	4	5

Understood

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

Listened to

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

Valued

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

Safe

strongly disagree	disagree	neutral	agree	strongly agree
1	2	3	4	5

APPENDIX F

STUDENT INTERVIEW QUESTIONS

Student Interview Protocol

PAIAQ positive or negative/no change? _____ Date:_____

Class: _____ Time:_____

Hello, I am a graduate student here and am doing a research project on basic instruction courses. Is it okay if I ask you some questions related to the class and yourself?

1.) Could you tell me your year and major at the university?

2.) Why did you decide to enroll in this (soccer or volleyball) class?

3.) How would you describe this class to someone who hasn't observed a class?

4.) What things do you enjoy most about this course? What does the instructor do specifically?

5.) Could you describe to me the type of things the instructor focuses on? Can you describe to me the value you see in these things? '

6.) Would you describe the instructor as a role model? Why or why not?

7.) Could you explain to me the social aspect of this class? Does this play a role for you in future physical activity?

8.) Why is it important for you to exercise? What sort of activities do you participate in outside of class and why?

9.) Has this course increased your intention of engaging physical activity after graduation? What has the instructor done to help you increase these intentions specifically the last few weeks of the semester?

10.) Do you think basic instruction courses can influence students to be physically active after graduation?

11.) What can an instructor of an activity course do in their instruction to increase their students' future intentions of exercise?

12.) What role do you see this class playing in your lifestyle during & after college?

APPENDIX G

INSTRUCTOR JOURNAL TEMPLATE

Course: _____

Date:	
Lesson #:	
Lesson Topic/Tasks:	
FPC practices used.	
Organization/pedagogy of tasks?	
What indications did you see that students understood relevance or "got it"?(Is there a behavior that tell us students received the practice effectively)	
What other aspects of the lesson could you implement the same or another FPC practice?	

If you were to teach this lesson again, what would you change relative to Future Practices?	