Social Competence Of High School Students Enrolled In Online Physical Education Courses

2005

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SOCIAL COMPETENCE OF STUDENTS ENROLLED IN ONLINE
HIGH SCHOOL PHYSICAL EDUCATION COURSES

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
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ABSTRACT

The purpose of this study was to assess the social competence of high school students enrolled in online Physical Education courses. Additionally, the demographic information regarding students who enroll in online Physical Education courses was examined. The subjects for this study included sixty students taking one of two Physical Education courses at the Florida Virtual School during the spring 2005 term. The entire curriculum of the Florida Virtual School is presented online and students live throughout the entire state of Florida. Therefore, the entire study was administered online.

The assessment instrument used was the Teenage Inventory of Social Skills created by Heidi Inderbitzen. The Teenage Inventory of Social Skills is a 40-item self-report questionnaire consisting of statements rated on a 6-point continuum. The instrument was divided into two sub-scales; a positive scale and a negative scale. A One-Sample T-Test was used to compare the mean sample scores with the standard means. Frequencies were run to review demographic information.

Results indicated that there was no significant mean difference found between the students enrolled in online Physical Education courses and the mean of students established by the TISS. The majority of respondents were female, Caucasian, and were attending public or private schools for most of their classes.
This paper is dedicated to my husband, Mark, and my boys, Brian and Lane. Your love and support have sustained me. It is because of you that this was at all possible. You have sacrificed much on my behalf. I am forever thankful.
ACKNOWLEDGMENTS

I am most grateful to my parents for their love and support. Their belief in my abilities, along with their encouragement and care has been my primary source of self-

I am much obliged to my committee, Dr. Patricia Higginbotham, Dr. Lea Witta, Dr. Debby Mitchell, Dr. Dawn Oetjen, and Dr. Thomas Fisher. You believed in me, supported me, and served as mentors and friends. Your expertise has been an inspiration to me. I thank you.

I also acknowledge Mr. Bruce Friend, Chief Administrative Officer at the Florida Virtual School. This would not have been possible without your assistance and support. Thank you so much.

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<tr>
<th>Acronym</th>
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<tr>
<td>FLVS</td>
<td>Florida Virtual School – Florida’s first Internet based public high school</td>
</tr>
<tr>
<td>NASPE</td>
<td>National Association of Sport and Physical Education – a professional organization engaged in the study of human movement and the delivery of sport and physical activity programs. This organization sets the standard for quality sport and physical activity programs that promote healthy behaviors and individual well-being.</td>
</tr>
<tr>
<td>SE</td>
<td>Sports Education Model – a Physical Education teaching model developed by Dr. Darryl Siedentop that uses persisting teams to positively promote social skills, social development, and team affiliation.</td>
</tr>
<tr>
<td>TISS</td>
<td>Teenage Inventory of Social Skills – this survey instrument was designed by Dr. Heidi Inderbitzen and was used in this study.</td>
</tr>
<tr>
<td>TPSR</td>
<td>Teaching Personal and Social Responsibility – a teaching model for physical education programs designed by Dr. Don Hellison. The purpose of the model was to develop personal and social responsibility of students through five levels.</td>
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CHAPTER ONE

INTRODUCTION

Background and Significance

Physical education is widely acknowledged as an important vehicle for developing socially desirable traits in children. (Laker, 2000) The National Association of Sport and Physical Education (NASPE) identifies six standards that describe a “physically educated person.” These standards span all grade levels, from kindergarten through grade 12. Three of the six standards are not related to physical development and two of these specifically pertain to social competencies. (National Association for Sport and Physical Education, 2004) Similarly, when describing a quality physical education program, NASPE includes guidelines that fall under the affective and social domains of learning, in addition to the psychomotor and cognitive domains.

In his book, Laker included the following quote from the Department of Education and Science, the highest education authority in Britain:

PE’s contribution to the social and ethical aspects of personal development can be considerable, involving as it does cooperation and competition. Games, with their codes of rules, give experience of actions within structured situations, and of personal reaction and initiative within an accepted framework. The general human need to participate in various activities is as much concerned with the patterning of relationships as with the expenditure of physical energy. Acceptable social behaviour and social responsibility are encouraged and developed by means of these latter experiences. (Pp. 16-17)
Currently many students are fulfilling their physical education requirements by enrolling in one or both of the two physical education courses offered by the Florida Virtual School (FLVS). The courses are Personal Fitness and Fitness Lifestyle Design. Understandably, many professional physical educators have shared concerns regarding the credibility of a computer-based physical education class as it relates to physical development of children. However, very few have questioned how well these courses are fulfilling the social objectives of physical education.

**Purpose**

The purpose of this study was to assess the social competence of students enrolled in online physical education courses at the Florida Virtual School. Traditional physical education classes provide a variety of opportunities and situations that allow for students to become more socially astute. The FLVS is exclusively virtual. Social interactions may involve e-mail and phone conversations with the instructor. Peer-to-peer contacts may occur in Internet chat rooms or e-mails. This study was designed to determine if the lack of direct social interaction unique to traditional Physical Education is of any consequence to students enrolled in online courses.

**Research Questions**

The researcher is seeking to answer the following questions:

1. Do the social skills of students enrolled in online physical education classes vary from the norms established by the Teenage Inventory of Social Skills?
2. Why do students choose to take physical education online?

3. What are the demographic characteristics (e.g., race, gender, etc.) of the students who enroll in the online physical education courses?

4. What are the students’ educational profiles? Are they enrolled in the virtual school full time or part time? Are any home schooled?

Limitations

1. One limitation was a low response rate. Due to the unique and novel nature of the FLVS, the students and parents are solicited to participate in many surveys. This may have affected the low response rate.

2. Time was a limitation due to deadlines placed on the researcher for completion of the dissertation.

3. No qualitative methods were used in this study. Interviews could have provided additional information that would have benefited the study.

Assumptions

The following assumptions were made when conducting this study:

1. The respondents answered truthfully.

2. The students were reliable judges of their own behavior.

3. Additionally, it was assumed that the sample accurately reflected the population.
**Definition of terms**

Social competence

A term that includes those skills necessary for effective interpersonal functioning such as adaptive behavior, social skills, and peer acceptance.

Social skills

Specific behaviors that lead to desirable social outcomes when initiated, such as cooperation with peers, reinforcement of peers’ behavior, and social initiation behaviors.

**Methodology**

*Population*

The sample for the study was taken from the students enrolled in either of two physical education courses at FLVS during the spring 2005 term, Personal Fitness or Personal Lifestyle Design. Initially, two hundred students were randomly selected to participate in the study. A second sample of two hundred students was later invited to participate to increase the number of responses.

*Survey instrument*

The Teenage Inventory of Social Skills (TISS), created by Heidi Inderbitzen, was used to assess social competence. The TISS is a 40-item self-report questionnaire consisting of statements rated on a 6-point continuum. (Inderbitzen & Foster, 1992)
instrument was selected because of its simplicity and relevance to the study. Additional items pertaining to demographics, reasons for enrolling in the courses, and educational status, were added to the survey by the researcher.

Time frame

The survey was administered to the sample during the spring 2005 term. Students were given two weeks to complete the survey. A reminder e-mail was sent after one week, and a final letter was e-mailed when there were two days remaining. The process was repeated for the second sample with a time frame of one week for completing the survey.

Data Collection

The survey was posted on the server for the College of Education at the University of Central Florida using Form Manager Software. The researcher acquired an account with Form Manager to access and monitor the activity on the account.

After receiving the cover letter via e-mail, the study sample was able to access the survey from their home computers by following the link contained in the e-mail. Once the final deadline to complete the survey had passed, the researcher downloaded the data for analysis.
Data Analysis

The researcher was able to access the data, which was posted into an account in Form Manager. When the deadline to submit surveys was passed, the data was downloaded into the statistical software program, SPSS. Descriptive statistics were compiled, sorting results by gender, race, and educational style. Means and standard deviations for the positive and negative scales were compared with the standard provided by the author of the survey instrument using a One-Sample T-Test.
CHAPTER TWO

REVIEW OF LITERATURE

Physical education-social objectives


NASPE lists seven National Content Standards for Physical Education. Standard five describes a physically educated person as one who “exhibits responsible personal and social behavior that respects self and others in physical activity settings.” Tenth grade students should be able to, “apply safe practices, rules, procedures, and etiquette in all physical activity settings, act independently of peer pressure, resolve conflicts in appropriate ways, and keep the importance of winning and losing in perspective relative to other established goals of participation.” Some performance outcomes for standard five include, “participates successfully in a cooperative learning group with a wide range of diverse members, invites less-skilled students to participate in a warm-up activity prior to class, and shows leadership by diffusing conflict during competition.” (National Association for Sport and Physical Education, 2004)

Standard six states that the student “values physical activity for … social interaction.” (National Association for Sport and Physical Education, 2004)
outcomes for high school students include, “recognizes physical activity as a positive opportunity for social and group interaction, and enjoys working with others in a sport activity to achieve a common goal.” (National Association for Sport and Physical Education, 2004)

Likewise, when describing a quality physical education program, NASPE includes guidelines that fall under the affective and social domains of learning, along with the psychomotor and cognitive domains. For example, NASPE suggests that quality physical education programs provide instruction in a variety of motor skills that enhance the physical, mental, and social/emotional development of every child,” and “provide opportunities to improve their emerging social and cooperative skills.” (National Association for Sport and Physical Education, 2004) A quality program, according to NASPE, influences moral development. In a quality physical education program, students learn to assume leadership and cooperate with others.

“Physical education is a major force in helping children and youth socialize with others successfully and provides opportunities to learn positive social skills. Especially during late childhood and adolescence, being able to participate in dances, games, and sports is an important part of youth peer cultures.” (National Association for Sport and Physical Education, 2004)

Judith E. Rink (2002) identifies these standards as being the unique responsibility of physical education and are to be “taught, not as something to be ‘caught’ by students as a result of their participation in activity but as explicit program goals and lesson objectives.” Often physical educators believe that mere participation in sport teaches
values such as social skills, honesty and integrity. Without proper instruction, the opposite may be learned. Unless strategies for social development are taught, outcomes will not occur (Hellison, 1995; Patrick, Ward, & Crouch, 1998; Giebink & McKenzie, 1985). It is essential that teachers make clear their expectations for sportsmanship, behavior, and cooperative skills, and then reinforce these expectations in their classes.

Common scenarios of physical education classes that do not teach social objectives include a low-skilled student always being picked last when teams are being formed or when students always choose partners or teammates of the same gender, race, or culture. Another example may be a teacher that does nothing to deter negative comments, cheating, or poor sportsmanship. (Rink, 2002) Physical education is a social laboratory, according to Rink, and physical education teachers have a responsibility to positively influence the formation of values and attitudes toward others. The physical education setting is conducive to social development because it is inherently social and qualitatively different than the traditional classroom (Shields & Bredemeier, 1995; McHugh, 1995).

Docheff (1998) expounds on this by expressing the influence teachers have on students. Teachers must take personal responsibility for developing good character in others by demonstrating good character themselves. (Docheff, 1998; Lumpkin et al., 2003)

Social development has been validated as a goal of physical education having been included in the national and state physical education standards. The use of assessment instruments specifically targeting social development behaviors is discussed
by Kulinka et al., 1999, and Timm et al., 2003. Assessment instruments such as portfolios can show progression in the area of social development.

Accepting others who are different is an aspect of social competence that must be taught. The lack of social acceptance by peers influences all aspects of students’ lives and perceptions of themselves. Rink recommends the following practical strategies for promoting social growth and competence:

- Model attitudes toward differences. Teachers need to lead by example.
- Teach students to respect the person and property of others.
- When students demonstrate disrespectful behavior toward you, do not respond in kind. Positively reinforce appropriate behavior.
- Facilitate but do not force interaction between students who demonstrate unfriendly behavior toward each other.

Isobelle Kleinman suggests using teachable moments to promote positive social behavior. She believes these moments occur when teachers take the time to set up a sound learning environment, group teams so they are equal, and work to have everyone follow the same set of rules and conditions. (Kleinman, 2001) In her book, Complete Physical Education Plans for Grades 7-12, Kleinman incorporates NASPE’s social standards into most units. Units such as dance and team sports are more social in nature, allowing for more opportunities to meet these objectives. However, even in individual activities such as Personal Fitness she devises opportunities for social growth by creating lessons using partners or small groups.
There are many offerings of strategies used to teach social competencies in physical education. Writing journals to encourage students to reflect on their social skills is one suggested method. (Cutforth & Parker, 1996) Bob Horrocks (as cited in Parker & Hellison, 2001) suggests using a “talking bench,” which is a place where students resolve disputes, and Deline’s “no plan, no play” policy requires students to present a plan for improving behavior before returning to play. (Deline, 1991) Teaching of social behaviors involves explicit instruction, clear explanations of expected behaviors, using examples for clarification, teacher prompts, positive reinforcement combined with corrective feedback, monitoring student behavior, and students’ self-report. (Vidoni, 2003)

The Spectrum Teaching Styles, presented by Mosston and Ashworth (1994), is a framework of instructional models designed to assist the physical educator to integrate psychomotor, cognitive and social objectives into their teaching. Of the eight styles in the spectrum, social development is heavily emphasized in the reciprocal style (C), and associated with inclusion (E) and guided discovery (F) within the spectrum. (Garn & Byra, 2002)

Parker and Hellison (2001) address the relationship between physical education and social behavior in the article, “Teaching Responsibility in Physical Education: Standards, Outcomes, and Beyond.” This article specifically addresses the implementation of NASPE content standard five. The authors assert that although physical activity content has the potential to promote standard five, it is not automatically reflected and needs to be addressed intentionally. Concepts related to developing
responsibility must be clearly defined and activities must be taught in such a way as to promote responsibility.

This was further demonstrated by Balderson and Sharpe (2005). Their research indicated that social behavior improved in physical education classes when students were held accountable for off-task behavior.

In a study by Pote, Katzenellenbogen, and Du Randt (1995), a high school physical education class was divided into two groups, a control group and an experimental group. A physical education program was developed that focused on certain basic social values that promoted socially responsible behavior. The experimental group was taught using this program, while the control group remained in a conventional program that did not have specific social development objectives. The results of the study suggested that planning and teaching for social values and behaviors in physical education can promote the quality of the students’ social behavior at the high school level.

Donald R. Hellison has devoted his career to intentionally teaching personal and social responsibility through physical activity. This is most evident in his book entitled “Teaching Responsibility through Physical Activity,” which includes the TPSR Model, *Teaching Personal and Social Responsibility* used by many physical educators. (Hellison, 1995) There are five levels in the TPSR model: Level 1: Self-control; Level 2: Involvement; Level 3: Self-responsibility; Level 4: Caring; and Level 5: Transfer outside the program. The model also includes a Level 0: Irresponsibility. He provides specific
methodology for developing students’ personal and social responsibility through the five levels in a physical education program.

Mercier and Hutchinson (1998) discuss the role of physical education in the social development of children. They state that the foundation for identifying, monitoring, and processing social skills lies in the ability to effectively communicate thoughts, feelings, and understandings. This requires practice as well as constructive feedback regarding how these qualities are shared with others. “Social skills are learned by identifying and defining the skills, understanding them, and practicing those skills with others.” (p. 168) Role-playing and practice in a variety of social situations is necessary. It also requires proper supervision and guidance. Cooperative groups, competition, and conflict resolution are three common frameworks found in physical education settings that can positively influence the learning of social skill concepts and interaction skills.

Research conducted by MacPhail, Kirk, and Kinchin (2004) reinforced the social benefit of physical education when using Siedentop’s Sport Education (SE) Model. Key features of this model include placing students in persisting groups (teams) through an extended “season” or sports unit, formal competition, a culminating event, festival, record keeping, and team affiliation. In addition to team sports, this model has been used successfully when teaching dance and some individual sports. The use of persisting teams positively promoted social skills, social development, and team affiliation. (Grant, Tredinnick, & Hodge, 1992; Hastie, 1998a, 1998b; Hastie & Sharpe, 1999)

Siedentop’s Sports Education Model is an effective model in the inclusion of female students, less skilled students and less popular students. Students who participated
in the SE program related that they communicated more with their peers, encouraged and assisted other team members, and gained in self-confidence. One teacher reported that two girls who were known to be shy and reticent joined the school netball team. (MacPhail et. al., 2004)

Nontraditional recreational pursuits have been used by physical educators to promote social development in students. Adventure-based activities, outdoor pursuits, martial arts, roller-blading, and kick-boxing are activities included in many physical education programs (Ballard & Chase, 2004; Rohnke, 1984; U. S. Department of Education, 1995). Group development is an integral part of adventure education programs because students focus on social growth (Forgan & Jones, 2002).

Cooperative learning is another approach that has been shown to positively affect social development in physical education (Slavin, 1991, 1995; Smith, 1997; Rattigan, 1997; Grineski, 1996; Dyson, 2001; Dyson & Rubin, 2003; Dyson, Griffin, & Hastie, 2004). Cooperative learning is defined by Slavin as instructional programs in which students work in small groups to help one another master academic content. It promotes positive interdependence, and individual accountability. Dyson and Rubin (2003) reiterate the fact that teaching for social development requires a concentrated effort and that it does not happen automatically. Ward and Lee (2005) provide a comprehensive review of literature on the role of physical education in social development, including cooperative learning.

Educating students in social skills has been shown to be an integral part of the physical education program. Parker and Hellison (2001), Mercier and Hutchinson
(1998), MacPhail, Kirk, and Kinchin (2004), and Grant et al. (1992), have also shown that proper supervision and guidance in a variety of social situations that are intentionally planned are necessary to effectively develop social skills.

Technology use and social development

Studies on the effects of non-social or indirect social activity using the computer by adolescents are prevalent. In a report prepared by the Alliance for Childhood entitled, “Fools Gold: a Critical Look at Computers in Childhood,” former director of the Clinical Infant Development Program at the National Institute of Mental Health, Dr. Stanley I. Greenspan, was quoted “So-called interactive, computer-based instruction that does not provide true interaction but merely a mechanistic response to the student’s efforts is one more sign of the increasingly impersonal quality that suffuses the experience of more and more American children.” (Alliance for Childhood, 2004)

In 1999, children between the ages of two and 18 spent approximately four and three-quarter hours a day outside of school plugged into some sort of electronic media, according to the Kaiser Family Foundation. (Alliance for Childhood, 2004) Children today are spending much more time engaged in isolated activities, and significantly less time interacting face-to-face with parents, teachers, and friends.

The Alliance identified a study conducted by the Fortino Group, a consulting firm in Pittsburgh. This study was conducted over nine months and covered 6,000 people of all ages and with varying levels of Internet expertise. They determined that children ages
10 to 17 (known as generation "Y-ers") will spend nearly one third of their lives--or a little over 23 years, on average--on the Internet. Youth in this age bracket are projected to experience approximately one-third fewer face-to-face encounters throughout their lifetimes due to the increase in the use of electronic media at home and at school. (Alliance for Childhood, 2004)

Developmental experts purport that face-to-face interactions offer children the most emotionally maturing experiences. Greenspan contends that the impersonal nature of computers may harm the emotional development of children, which will negatively affect the intellectual, social, and moral development because emotions guide human learning and behavior. (Greenspan, in Alliance for Childhood, 2004). The novelty of high tech instructional technology can de-humanize the educational process. The intention of technology may be to promote “student-centered” education. However, the shift is, in actuality, toward “computer-centered” education.

In a study conducted by Kraut et al. (1998) called the HomeNet study, greater use of the Internet was associated with statistically significant declines in social involvement. This was measured by the amount of family communication, the size of local social networks, and increases in the reporting of loneliness. Even social uses of the Internet, such as e-mail and chatting, were associated with negative outcomes like increased depression.

A follow-up study conducted in 2002 resulted in different results. Kraut and colleagues found that Internet use resulted in positive outcomes related to social involvement and psychological well being. Increases in community involvement and self-
esteem were reported, as well as declines in loneliness, negative effect, and time pressure. These positive outcomes were found predominantly in those who were extraverted. (Kraut et al., 2002) However, some negative outcomes remained. Introverts experienced opposite results when using the Internet. In both studies, heavy use of the Internet reflected an increase in stress and a declining commitment to living in the local area and less knowledge about it.

**FLVS Physical Education and social development**

The FLVS offers two physical education courses. They are Personal Fitness and Fitness Lifestyle Design. During the spring 2005 term, 2,874 students were enrolled in these courses. Both courses are aligned with the Florida Department of Education Physical Education standards, referred to as the Sunshine State Standards. (Florida Virtual School, 2001) There are seven Sunshine State Standards for Grades 9-12 Physical Education. (Florida Department of Education, 2003) These seven standards are divided into three general classifications: Physical Education Literacy, which has three standards; Responsible Physical Activity Behaviors, which has two standards; and Advocate and Promote Physically Active Lifestyles, which also has two standards. Each standard is further divided into several behavioral objectives. Of the seven standards, two specifically address social development. These standards are:

PE.B.2.4: The student demonstrates responsible personal and social behavior in physical activity.
PE.C.1.4: The student understands how participating in physical activity promotes inclusion and an understanding of the abilities and cultural diversity of people.

The courses offered at FLVS are online, but students are required to be physically active. The courses are divided into modules, each with a variety of mental and physical exercises that must be completed. The course descriptions list the modules as well as course objectives. The Personal Fitness objectives, as posted in the course description are:

Outcomes of the Personal Fitness Course:

- Give students the knowledge and desire to establish personal health and fitness programs. Educate and motivate students to want to stay physically active and make healthy lifestyle choices far beyond their high school years.
- Help students realize that regular physical activity will increase their energy level and productivity.
- Provide safe, challenging, and enjoyable activities that will allow students to assess and evaluate their lifestyles.
- Help students to realize that personal fitness is just that -personal-and that their bodies will not be compared to others in any way.
- Help students understand the value of participating in physical activity to promote psychological well-being.
- Help students develop positive attitudes about their physical self-images because they will be making improvements in their programs and lifestyles.
- Help students realize that disease prevention, rather than treatment, can drastically cut health-care costs.
- Give students the confidence to take control of many aspects of their lives. (Florida Virtual School, 2001)

It is worthy of note that none of the objectives specifically address the Sunshine State Standards that relate to social development. This discrepancy is cause for concern.
Because of the lack of direct social interaction in online courses, special consideration should be given to the development of social skills.

**FLVS Physical Education and physical development**

Students enrolled in the Personal Fitness course work their way through a virtual village called “Wellville.” There are ten modules with fitness and nutrition content that cover the standards prescribed by the state. Students must complete a fitness pre- and post-test and maintain a workout log that requires cardiovascular exercise, a flexibility routine and muscular strength and endurance programs. The Fitness Lifestyle Design course takes students through seven modules in a virtual “Club Web.” Students enrolled in this course must also maintain a fitness log recording three or more workouts every week. According to Bruce Friend, Chief Academic Officer at FLVS, “Most of our students tell us they are doing more in our personal fitness class than they would in their own schools.” (Bowman, 2003)

The course description for both courses clearly state there is an exercise component. Students are informed that if they are unable to participate in an exercise program they would be unable to complete the requirements of the course. Parental or adult supervision is required and teachers must make at least one monthly telephone contact with students and parents.

Students who completed the course enjoyed the fact that they were able to choose the mode of exercise, selecting activities such as dancing, surfing, biking and yoga. Being
able to exercise whenever they wanted was another benefit. One student’s in-school gym class did outdoor exercises under the hot Florida sun. In the FLVS course, she could work out in the mornings and evenings, and could enjoy taking a swim at her leisure.

These benefits may encourage students to be more active. Julie Young, executive director of FLVS states, “When you can sweat in private and not have to be concerned about peer pressure, about what you look like in a PE uniform, it’s amazing what you can accomplish.” (Brooks, 2003) An added benefit, according to Judith Young, executive director of NASPE, is that the flexibility this course offers may encourage students who would not otherwise work out. Young said, “If we can convince kids to be taking some responsibility for their own levels of health in non-school time, they may be more likely to incorporate it in their outside life.” (Brooks, 2003)

**FLVS Physical Education and cognitive development**

Both FLVS Physical Education courses are designed with a demanding cognitive component. Students must pass nine quizzes and a final exam on topics related to heat illnesses, nutrition, heart disease prevention, exercise prescription, target heart rate, body mass index, and daily caloric requirements. They complete many laboratory assignments on topics typically covered in these courses, including safety when exercising, stress management, flexibility, training principles, determining heart rates (resting, target, recovery, maximum), and caloric intake and expenditure. (Florida Virtual School, 2001)
Some students complain that the online courses are more difficult because they require more written work. Yet, the class had a high completion rate, 93 percent completion rate one year. (Bowman, 2003) One student who took the course thought it was going to be an easy “A.” Normally an A student, she discovered extensive weekly reading assignments and physical workouts, such as running and push-ups. She earned a B in the course. Her fitness notebook was about four inches thick. (Parker, 2003) A parent wrote in to FLVS, “When Ernie started at FLVS, he took Life Management Skills. He was so inspired with the modules on healthy eating that he began a personal fitness program. As of this date, he has lost 50 pounds.” (Florida Virtual School, 2005)

**Summary**

Literature is favorable for the cognitive and physical development of students enrolled in online physical education courses at FLVS. Provided students are honest and self-motivated, these courses can meet these objectives. The issue for the researcher is the absence of social development objectives for these courses. Judith Young summed up the concerns regarding online physical education courses by stating, “If this is the only experience some students are going to have with physical education, it’s questionable.” (O’Dwyer, 2003)
CHAPTER THREE

METHODOLOGY

Introduction

This chapter will provide information on the research design and implementation of the study. A more thorough description of the study setting, population, sample selection, survey instrument and statistical analysis is also provided.

The purpose of this study was to assess the social competence of students who enrolled in online physical education courses at FLVS. The specific questions were:

The researcher is seeking to answer the following questions:

1. Do the social skills of students enrolled in online physical education classes vary from the norms established by the Teenage Inventory of Social Skills?
2. Why do students choose to take physical education online?
3. What are the demographic characteristics (e.g., race, gender, etc.) of the students who enroll in the online physical education courses?
4. What are the students’ educational profiles? Are they enrolled in the virtual school full time or part time? Are any home schooled?
Study Setting

*Florida Virtual School*

This study was conducted during the spring 2005 semester at the Florida Virtual School (FLVS). The school was founded in 1997 as a grant-based project between two Florida school districts. It provides virtual K-12 education solutions to students throughout the country. Seventy-seven students enrolled the first semester the school opened. In 2000, the Florida Legislature established a state law recognizing FLVS as an independent educational entity with a gubernatorial appointed governing board. It serves schools across the country and offers virtual education solutions for grades 6 to 12, as well as GED alternatives. In 2004-2005, enrollment exceeded 33,000. Courses are free to Florida students and are available to public, private, and home school students. National and international students may enroll on a tuition basis.

FLVS provides a rigorous academic program that has received many national and international awards for educational excellence. It is fully accredited by The Southern Association of Colleges and Schools (SACS) and The Commission on International and Trans-Regional Education. More than 80 courses which are transferable are offered by FLVS. All of the two hundred plus teachers possess valid Florida teaching certificates and are certified in the subjects they teach. Thirty-six of the educators are national board certified.

Courses are delivered over the Internet. Many web-based, technology-based, and traditional resources are available to assure student success with virtual learning.
Teachers communicate with students and parents on a regular basis via phone, e-mail, online chats, instant messaging, and discussion forums.

**Design and Methodology**

**Design of the Study**

A minimal-risk, electronic survey was administered to assess social skills of FLVS students. The survey was posted on the server for the College of Education at the University of Central Florida using Form Manager software. Participants of the study accessed the survey by following a link provided in the cover letter sent via e-mail by the researcher and an FLVS administrator.

As the administrator of the Form Manager account, the researcher was able to access the account and monitor the response rates. With Form Manager, the researcher was able to view, download, or e-mail data and control start and end times for submission from participants. Each data entry provided a time stamp indicating when the data was submitted.

Due to the complete virtual nature of the FLVS, all contacts with the subjects were made via the Internet.
Study Population and Sample Selection

The sample used in the study was chosen from the population of all high school students enrolled in either Fitness Lifestyle Design or Personal Fitness, the physical education courses offered by the Florida Virtual School (FLVS) during the spring 2005 term.

The demographic figures of FLVS physical education students are detailed in Table 1. According to enrollment data for the 2004-2005 school year, there were nearly twice as many females as males. Seventy-two percent of the students were Caucasian and the majority of students were enrolled in public rather than private, charter, or home-schools.

During the spring term, a total of 2,874 students were enrolled in these courses. There were 1,997 enrolled in Personal Fitness and 877 enrolled in Fitness Lifestyle Design. A random sample of 200 students was selected from the population. Due to a low response rate, a second sample of 200 students was chosen. Eight students who were selected in both random samples were excluded from the second sample. The remaining 192 students became the second sample.
The entire study was designed to protect the identity of the students and maintain their anonymity. The researcher was provided with a list of course sections and the number of students enrolled in each section from an administrator at FLVS. Each course section was assigned a number as was each student in each section. For example, there were 22 sections of Personal Fitness offered during the spring 2005 term. There were 114 students in the first section of Personal Fitness. Without knowing their names, the researcher assigned each student a number, PFA-1 (Personal Fitness Section A, student number 1), through PFA-114 (student number 114). This process was repeated for all Personal Fitness sections and for all sections of the Fitness Lifestyle Design course. All

<table>
<thead>
<tr>
<th></th>
<th>Personal Fitness</th>
<th>Fitness Lifestyle Design</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>4492</td>
<td>1822</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td>1482</td>
<td>542</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td>3010</td>
<td>1280</td>
</tr>
<tr>
<td><strong>Caucasian</strong></td>
<td>3239</td>
<td>1305</td>
</tr>
<tr>
<td><strong>Minorities</strong></td>
<td>1243</td>
<td>517</td>
</tr>
<tr>
<td><strong>Public School</strong>*</td>
<td>4079</td>
<td>1710</td>
</tr>
<tr>
<td><strong>Charter</strong>*</td>
<td>39</td>
<td>23</td>
</tr>
<tr>
<td><strong>Private</strong>*</td>
<td>87</td>
<td>25</td>
</tr>
<tr>
<td><strong>Homeschool</strong>*</td>
<td>287</td>
<td>64</td>
</tr>
</tbody>
</table>

*Type of schooling student primarily attends
2,874 students had a unique but identifiable number without the researcher knowing their name. The random sample of 200 students was created from this list.

The researcher provided the FLVS administrator with the sample and the cover letter, which was e-mailed to the students. The letter included a link to access the parental consent, student assent, and survey forms. The researcher’s e-mail address was included should any student or parent need assistance or clarification. For the sake of simplicity, all three forms were accessible from the same link. The forms were placed on the server in the College of Education at the University of Central Florida. In keeping with the virtual nature of FLVS, the researcher set up the study so that the students could access all information from their computers.

Data Collection Instrument

The Teenage Inventory of Social Skills (TISS), created by Heidi Inderbitzen, was used to assess social competence. (Inderbitzen & Foster, 1992) This 40-item, self-report questionnaire consists of statements rated on a 6-point continuum, with 20 positive items and 20 negative items, as shown in Table 2:

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakdown of Positive and Negative Items on the TISS</td>
</tr>
<tr>
<td>Positive items:</td>
</tr>
<tr>
<td>Negative Items:</td>
</tr>
</tbody>
</table>
The positive scale score was derived by summing the endorsements (i.e., “does not describe me at all” = 1 point, “describes me totally,” = 6 points) given for each of the positive item scores. The same process was repeated for negative endorsements. There are two versions of the TISS, one for males and one for females. The versions are identical except for the use of nouns and pronouns (e.g., Item 4 for of the female version reads, “I forget to return things that other girls loan me”).

“Two-week test-retest reliabilities for the positive and negative behavior scales were .90 and .72; internal consistencies were .88. Convergent validity was assessed by comparing TISS scales with self-monitoring data, ratings by peers, and sociometric data. Discriminant validity was examined by investigating correlations between scores on the TISS and social desirability, socioeconomic status, and another paper-and-pencil self-report instrument (Conflict Behavior Questionnaire).” (Inderbitzen & Foster, 1992) Table 3 provides the means and standard deviations for the positive and negative scales that served as the standard for this study.

Three demographic questions were added to the survey by the researcher, which assisted in developing a profile of the students. The three questions related to race, school type, and reason for taking the course.
Table 3
Descriptive Statistics of the TISS

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>544</td>
<td>549</td>
<td>1093</td>
</tr>
<tr>
<td>Mean</td>
<td>74.97</td>
<td>93.24</td>
<td>84.15</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>14.53</td>
<td>11.35</td>
<td>15.91</td>
</tr>
<tr>
<td><strong>Negative</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>546</td>
<td>547</td>
<td>1093</td>
</tr>
<tr>
<td>Mean</td>
<td>55.35</td>
<td>44.97</td>
<td>50.16</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>12.12</td>
<td>10.84</td>
<td>12.61</td>
</tr>
</tbody>
</table>

(Inderbitzen and Foster, 1992)
Response rates (n=60) from both samples of the population were low (~15%).

The combined number of students who were asked to participate in the study was 392. This number reflects the 200 students from the first sample plus 192 from the second sample (8 students of the 200 in the second sample were removed because they were also randomly selected in the first sample).

Boxplots revealed two outliers in the positive scores for females and one outlier in the negative scores for females. No outliers were present in either the positive or the negative scores for males. Boxplots for both positive and negative scores are displayed in Figure 1.
Figure 1: Box plots for Positive and Negative Scores
Research Question 1

Do the social skills of students enrolled in online physical education classes vary from the norms established by the TISS?

The TISS was selected to address this question. On the survey, the TISS comprised the first 40 items (the remaining three items were added by the researcher). Means and standard deviations for both positive and negative scales were compared to the norms for males and females using the One-Sample T-Test. An alpha level of .05 was used for all tests.

Results for Males

Fifteen males participated in the study. A summary of the descriptive statistics can be found in Table 4. The range of scores for the positive scale was 51, with a minimum score of 51 and a maximum score of 102. The negative range of scores was 44. The minimum negative score was 28 and the maximum was 72. There were no outliers in either the positive or negative scores for males.
There was no statistically significant mean difference ($t = 1.63$, df = 14, $p = .12$) in the positive scale scores between the sample and the standard mean. The standard mean ($M = 81.06$) was not significantly higher than the sample mean ($M = 74.97$, $SD = 14.53$). The confidence interval was very wide ($-1.89 < \mu < 14.09$).

There was no statistically significant mean difference ($t = -1.9$, df = 14, $p = .08$) in negative scale scores between the male sample and the standard mean. The standard mean ($M = 55.35$) was not significantly higher than the sample mean ($M = 49$, $SD = 12.96$). There was a very wide confidence interval ($-13.53 < \mu < .83$).

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>15</td>
<td>51</td>
<td>102</td>
<td>81.07</td>
<td>14.43</td>
</tr>
<tr>
<td>Negative</td>
<td>15</td>
<td>28</td>
<td>72</td>
<td>49.0</td>
<td>12.96</td>
</tr>
</tbody>
</table>

Table 4
Descriptive Statistics for Males
Results for Females

Forty-five female students responded to the survey. The descriptive statistics are provided in Table 5. To summarize:

1. The range of positive scores was 82. The minimum score was 33 and the maximum score was 115. Two positive scores identified as outliers were 33 and 53.

1. The range of negative scores was 55. The minimum score was 27 and the maximum score was 82. One female scored 85 points, which was labeled as an outlier.
Table 5  
Descriptive Statistics for Females

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Outliers</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>45</td>
<td>33</td>
<td>115</td>
<td>33, 53</td>
<td>92.47</td>
<td>17.72</td>
</tr>
<tr>
<td>Negative</td>
<td>45</td>
<td>27</td>
<td>82</td>
<td>82</td>
<td>43.84</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Results for Females - Outliers Included

There was no statistically significant mean difference ($t = -.29$, $df = 44$, $p = .77$) in positive scale scores between the female sample and the standard mean. The standard mean ($M = 93.24$) was not significantly higher than the sample mean ($M = 92.47$, $SD = 17.72$). The confidence interval was large (-6.1 < $\mu$ < 4.55).

There was no statistically significant mean difference ($t = -.63$, $df = 44$, $p = -.53$) in negative scale scores between the female sample and the standard mean. The standard mean ($M = 44.97$) was not significantly higher than the sample mean ($M = 43.84$, $SD = 12$). Again, the confidence interval was large (-4.73 < $\mu$ < 2.48). A summary of statistics for females is found in Table 6.
Table 6
Summary of Statistics for Females using the One-Sample T-Test (N=45)

<table>
<thead>
<tr>
<th>Statistic</th>
<th>T</th>
<th>DF</th>
<th>P</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Scale</td>
<td>-.29</td>
<td>44</td>
<td>.77</td>
<td>-6.1 &lt; μ &lt; 4.55</td>
</tr>
<tr>
<td>Negative Scale</td>
<td>-.63</td>
<td>44</td>
<td>-.53</td>
<td>-4.73 &lt; μ &lt; 2.48</td>
</tr>
</tbody>
</table>

Results for Females – Outliers Removed

There was no statistically significant mean difference (t = .71, df = 42, p > .05) in positive scale scores in the female sample and the standard mean when outliers were removed (N=43). The standard mean (M = 93.24) was not significantly lower than the sample mean (M = 94.77, SD = 14.22). The confidence interval was –2.85 < μ < 5.90.

There was no statistically significant mean difference (t = -.1.25, df = 43, p = .22) in negative scale scores between the female sample and the standard mean. The standard mean (M = 44.97) was not significantly higher than the sample mean (M = 42.98, SD = 10.61). The confidence interval was –5.22 < μ < 1.23. These results are found in Table 7.
Table 7
Summary of Statistics for Females using the One-Sample T-Test–Outliers Removed

<table>
<thead>
<tr>
<th>Statistic</th>
<th>T</th>
<th>DF</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Scale</td>
<td>.71</td>
<td>42</td>
<td>-2.90 &lt; μ &lt; 5.90</td>
</tr>
<tr>
<td>Negative Scale</td>
<td>-1.25</td>
<td>43</td>
<td>-5.22 &lt; μ &lt; 1.23</td>
</tr>
</tbody>
</table>

Research Question 2

Why do students choose to take physical education online?

Item number 43 of the survey addressed this issue. The question read:

“If you attend public or private school for most classes, please select the most likely reason you chose to take physical education at FLVS.

a. I could not fit regular physical education into my schedule.

b. I am self-conscious about exercising in front of my peers.

c. I am not athletic enough to enjoy physical education in school.

d. I do not like to get all sweaty in school.

e. Other (please explain):

The frequency of responses for each choice is shown in Table 8. The most common reason for taking the online physical education course was because it fit their schedule. A total of 39 students (65%) responded with this answer. The second most
frequent choice was “other,” selected by 11 respondents (18%). Students were prompted to provide a reason if they made this choice. Only ten students provided a reason (five females and five males). Some reasons were,

“It was my only option.” (Two students gave this response.)

“I have physical injuries.”

“It is not offered at my school.” (Two students gave this response.)

“I did not want to have to deal with other people and like to do things at my own pace.”

“I needed it to graduate.” (Two students gave this response.)

“I had mono at the time and couldn’t participate.”

“I wanted to open up a period to take AP European History.”

Six students said they took the course because they did not like to sweat in school, three because they were self-conscious, and one male felt he was not athletic enough. The top three reasons were the same for both males and females.

The students identified as outliers listed three different reasons for taking the course. One student was self-conscious, one did not like to sweat in school, and one took the course due to scheduling problems. Figure 2 shows the box plots for this data.
Table 8
Reasons for Taking Online Physical Education

<table>
<thead>
<tr>
<th>Reason</th>
<th>Frequency (Female, Male)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not fit in schedule</td>
<td>39 (31,8)</td>
<td>65%</td>
</tr>
<tr>
<td>Self-conscious</td>
<td>3 (3,0)</td>
<td>5%</td>
</tr>
<tr>
<td>Not athletic</td>
<td>1 (0,1)</td>
<td>1.7%</td>
</tr>
<tr>
<td>Do not like to sweat in school</td>
<td>6 (4,2)</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>11 (7,4)</td>
<td>18.3%</td>
</tr>
</tbody>
</table>
Figure 2: Box plots Stratified by Reasons for Taking Course
Research Question 3

What are the demographic characteristics (e.g., race, gender, etc.) of the students who enroll in the online physical education courses?

Of the 60 respondents, 45 were female and 15 were male. In addition, 33 of the respondents were Caucasian and 27 were minorities. The demographics of the respondents are outlined in Table 9. These numbers were compared to the total Physical Education enrollment for the 2004-2005 academic year at FLVS. The students who responded to the survey appeared to provide a broad representation of the total population based on gender and race.
Table 9
Demographic Profile

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Respondents</th>
<th>FLVS 2004-2005 (Physical Education Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>15</td>
</tr>
<tr>
<td>Race</td>
<td>Caucasian</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>African-American</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

*The remaining 28% of the students were classified in one group

As shown in the box plots found in Figure 3, two of the three outliers in the study were minority students; one was Asian and one was Hispanic.
Figure 3: Box plots of Data Stratified by Race
Research Question 4

What are the students’ educational profiles? Are students enrolled in the virtual school full-time or part-time? Are any home schooled?

Item number 42 on the survey addressed these questions. Results are outlined in Table 10. All of the males (100%) and 93% of the females in the study attended public or private school for most classes. One female was a full time student at FLVS. Two other females chose “other” and specified that they were dual enrolled in college and high school.
Table 10
Educational Status

<table>
<thead>
<tr>
<th>Schooling</th>
<th>Respondents Of the Study</th>
<th>FLVS Physical Education 2004-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Public/Private</td>
<td>57</td>
<td>95%</td>
</tr>
<tr>
<td>Home</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>FLVS full time</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

*information on full time students was not provided
**these 62 students attended Charter schools

The three female students identified as outliers attended public or private school for most classes. The spread of data for this variable is depicted in Figure 4.
Figure 4: Box plots Stratified by Education Status
CHAPTER FIVE

CONCLUSION

The primary purpose of this study was to assess the social competence of high school students who are enrolled in online physical education courses. Additionally, the demographic information regarding students who enroll in online physical education courses was examined. The subjects for this study included sixty students enrolled in one of two physical education courses at the Florida Virtual School during the spring 2005 term. The assessment instrument used was the Teenage Inventory of Social Skills created by Heidi Inderbitzen.

Research Question 1

Do the social skills of students enrolled in online physical education classes vary from the norms established by the TISS?

After comparing the mean scores for each gender against the standard mean, the results showed the social skills of students enrolled in online physical education classes were not significantly different from those students in the TISS study. Removing outliers did not alter the results of the data analysis.
Some possible reasons for this finding include:

1. The social skills of students are being developed in a different way in the online class, but being developed nonetheless.

This would reinforce the findings of Kraut et. al., (2002), who found that social involvement, psychological well being, and self-esteem improved with Internet use. It also resulted in decreases in loneliness, negative effect, and time pressure. However, his study also pointed out that introverts experienced opposite results with Internet use and that heavy Internet use could cause increased stress and a declining commitment to the local community. This relates directly to one of the findings in this study, which was depicted in Figure 1. The most extreme outlier for the female positive scores was a student who stated the reason she took the online physical education course was because she was self-conscious about exercising in front of her peers.

Certainly, there is more than one way to ascertain if a student may be experiencing social problems. However, a socially underdeveloped student would be much more transparent in a traditional physical education setting than in an online course. This would increase the probability that those students would be detected and obtain appropriate intervention.

Additionally, students in the online physical education classes are interacting socially through e-mails, Internet chat rooms, and telephone conversations. Students may have more opportunities to communicate one-on-one with the instructor of the online course,
boosting confidence and improving social skills. These modes of interaction may positively contribute to the social development of children in ways yet to be determined.

2. The social skills of students are being developed outside the physical education setting.

The overwhelming majority of students enrolled at FLVS get most of their education in a traditional school setting, which includes public, private, and charter schools. There appears to be no negative consequence to the diminished social contact that occurs from taking physical education online rather than in the traditional school setting.

3. The Personal Fitness Course and Fitness Lifestyle Design course are individual in nature and less likely to involve the development of social skills than activities such as team sports or dance, courses offered in traditional physical education programs.

**Research Question 2**

Why do students choose to take physical education online?

Survey responses indicated that the primary reasons (~85%) students enrolled in online physical education were academic in nature. Very few students identified social issues as their motivation for taking the course. This may indicate that socially underdeveloped students are not using online physical education courses in order to avoid the social experience of traditional physical education class.
Research Question 3

What are the demographic characteristics (e.g., race, gender, etc.) of the students who enroll in the online physical education courses?

The demographics of the online physical education courses mirror the FLVS student body. Females (75%) dominated the males (25%) in the study. The majority of students were Caucasian (55%), but there was a broad representation of minority students. This disproportion could be due to the fact that computers may not be as accessible to minority students as Caucasians.

As mentioned in Chapter 3, two of the three female students identified as outliers were minority students; one was Asian and the other was Hispanic. Outliers represent a special concern as their scores may indicate that they are experiencing significant social problems. Each student should be evaluated on an individual basis and intervention should be provided as necessary.
Research Question 4

What are the students’ educational profiles? Are students enrolled in the virtual school full time or part time? Are any home schooled?

Nearly 95% of students are enrolled at FLVS part time, attending a traditional school such as public, private, or charter schools, most of the time. Although none of the survey respondents were home schooled, it accounted for six percent of the 2004-2005 physical education enrollment. Again, this may be a significant reason why social competence of students in the study was not shown to be different than the social competence of students in traditional school. It is apparent that the majority of students in the study had ample opportunities for direct social interaction.

Recommendations for Further Research

The outcome of the study leads the researcher to make several suggestions for continued research:

1. Compare the social competence of students enrolled in physical education programs with specific aims for developing these traits to the social competence of students in programs without these aims.

Quality physical education programs intentionally provide opportunities to develop social and cooperative skills. Requiring proper guidance and supervision, social skill development must be purposely infused into the physical education curriculum. Cooperative groups, competition, and conflict resolution, when taught properly, are three
common offerings found in physical education settings that can positively influence the learning of social skill concepts and interaction skills. Are these students more socially competent than those students in schools that do not provide them?

2. Improvement of social competence could be measured using a pre- and post-test design. The purpose would be to measure the effect of lessons designed specifically for the development of social competence. Special consideration could be made to see if any improvements were made by students whose pre-test scores suggest the possibility of social problems.

3. It would be beneficial to determine concurrent activities students in the study are enrolled in that may contribute to social competence.

4. It is recommended that a fitness profile be acquired on students enrolled in the online Physical Education courses. It would be advantageous to know their age, height and weight, BMI, and scores on fitness assessments.

4. Lastly, it may be beneficial to repeat this study infusing qualitative research, such as interviews or observations. Answers given on a survey may not always reflect the true feelings and behaviors of a person.
APPENDIX A

IRB APPROVAL LETTER
April 11, 2005

Deborah Ware
370 Veracliff Court
Oviedo, FL 32765

Dear Ms. Ware:

With reference to your protocol #05-2435 entitled, “Social Competence of Students Enrolled in Online High School Physical Education Courses” I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office. The expiration date for this study will be 4/2/06. Should there be a need to extend this study, a Continuing Review form must be submitted to the IRB Office for review by the Chairman or full IRB at least one month prior to the expiration date. This is the responsibility of the investigator. Please notify the IRB when you have completed this study.

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board through use of the Addendum/Modification Request form. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

[Signature]

Barbara Ward, CIM
IRB Coordinator

Copy: IRB file
APPENDIX B

COVER LETTER
Dear FLVS Physical Education Student,

As a student enrolled in one of our physical education courses, you have been selected to participate in a simple, yet very important personality research survey from the Physical Education Department at the University of Central Florida. Because you have been selected from a random sample of FLVS students, your participation is very important. The responses that you provide to the survey questions are anonymous.

Please be sure your parent or guardian signs the consent form that can be found on the survey. Just click on the link marked “consent form” and follow the instructions.

To access the survey, click on the appropriate link. One is for boys and the other is for girls.

boys:  http://edcollege.ucf.edu/surveys/TISSboys.htm

girls:  http://edcollege.ucf.edu/surveys/TISSgirl.htm

Thank you for choosing FLVS and for participating in this UCF research study.

Thank you.
Sincerely,
Bruce Friend
Chief Administrative Officer
Florida Virtual School

Debbi Ware
Doctoral Student
University of Central Florida
ware-house@cfl.rr.com

If you have any questions, please e-mail Ms. Debbi Ware.
APPENDIX C

PARENTAL INFORMED CONSENT
March 16, 2005

Dear Parent/Guardian:

I am a graduate student at the University of Central Florida under the supervision of faculty member, Dr. Patricia Higginbotham, conducting research on the social competence of high school students enrolled in online physical education courses. Your child was selected to participate in this research because he or she is currently enrolled in either Personal Health or Fitness Lifestyle Design.

I am requesting your child’s participation, which will involve completing the Teenage Inventory of Social Skills, a 15 minute online survey that is designed to reflect behaviors related to peer acceptance. Your child will be able to access the survey from his or her computer, which needs to be completed by April 30, 2005. The results of the study may help determine if the social objectives of online physical education courses are being met. The results may not directly help your child today, but may benefit future students.

This is a voluntary, confidential survey. Your child’s identity will be kept confidential to the extent provided by law. The answers from all participants will be summarized and it will be impossible to identify your child in the responses. Participation or non-participation in this study will not affect your child’s grades or placement in any programs.

You and your child have the right to withdraw consent for your child’s participation at any time without consequence. Your child does not have to answer any question that s/he does not wish to answer. There are no known risks or immediate benefits to the participants. No compensation is offered for participation. If you have any questions about this research project, please contact me at (407)366-7254 or ware-house@cfl.rr.com. You may also contact my faculty supervisor Dr. Higginbotham, at (407)823-2050, higginbp@mail.ucf.edu. Questions or concerns about research participants' rights may be directed to the UCFIRB office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The hours of operation are 8:00 a.m. until 5:00 p.m., Monday through Friday except on University of Central Florida official holidays. The phone number is (407) 823-2901.

Sincerely,

Deborah Ware
I have read the procedure described above and I voluntarily give my consent for my child, ________________________, to participate in Deborah Ware’s study of social competence. I will keep a copy of this letter for my records.

______________________________

Parent/Guardian  Date

Please sign this letter electronically and email it back to Debbi Ware at ware-house@cfl.rr.com. If you prefer, you may print, sign, and fax or mail this form to:

Debbi Ware
370 Veracliff Court
Oviedo, FL 32765

Fax: 407-823-5144; to the attention of Dr. Patricia Higginbotham

Please retain a copy of this letter for your records.
APPENDIX D

STUDENT ASSENT
Student Assent

I am a student at the University of Central Florida and I am doing research about the social skills of students taking online physical education classes. I am asking you to help by completing a short survey called the Teenage Social Skills Inventory. It should take about fifteen minutes of your time.

Remember that your name will be kept private and I will use the results of the study only for my research. I will be combining all the results and only reporting the group scores.

If you decided to take the survey, you can stop at any time and do not have to answer questions that you do not want to answer. If you chose not to participate, it will not affect your grade in any way.

If you are willing to participate, please follow these steps:
1. Have a parent read and sign the form electronically

Please click on the appropriate box:
☐ Yes, I will take the survey. (This box will open the survey)
☐ No, I will not take the survey. (Please email this form to Debbi Ware at: ware-house@cfl.rr.com)
APPENDIX E

TEENAGE INVENTORY OF SOCIAL SKILLS ITEMS

VERSION FOR BOYS

(as presented to students on the Internet

using Form Manager)
Teenage Inventory of Social Skills Items – Version for Boys

Please be sure to read and have you parent read the consent form by clicking here: Consent form

Directions: For each of the 40 questions below please indicate the degree to which each statement describes you by choosing (1) if the statement does not describe you at all; (2) if it describes you very little; (3) if it describes you a little; (4) if it describes you somewhat; (5) if it describes you mostly; or (6) if it describes you totally. If more than one answer seems to apply to you, choose the one that applies more frequently.

When you are finished selecting answers to each question please select the submit button at the end of the form.

While some of these statements may seem repetitious, take your time and try to be as honest as possible.

Debbi Ware
University of Central Florida

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>1</td>
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</table>

1. I tell jokes and get other classmates to laugh. □ □ □ □ □ □
2. I try to get other classmates to do things my way when working on a group project. □ □ □ □ □ □
3. I stick up for other boys when somebody says something nasty behind their backs. □ □ □ □ □ □
4. I forget to return things that other boys loan me. □ □ □ □ □ □
5. I make jokes about other boys when they are clumsy at sports. □ □ □ □ □ □
6. I ask other boys to go places with me. □ □ □ □ □ □
7. I help other boys with their homework when they ask me for help. □ □ □ □ □ □
8. I ignore classmates when they tell me to stop doing something. □ □ □ □ □ □
9. I offer to help classmates do their homework. □ □ □ □ □ □
10. When I don’t like the way other boys look, I tell them. □ □ □ □ □ □

<table>
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<td>11</td>
<td>Does not describe me at all</td>
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<td>Describes me mostly</td>
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</tr>
</tbody>
</table>

11. I listen when other boys want to talk about a problem. □ □ □ □ □ □
12. I laugh at other boys when they make mistakes. □ □ □ □ □ □
13. I push boys I do not like. □ □ □ □ □ □

http://edcollege.ucf.edu/surveys/TISSboys.htm 6/8/05
### Teenage Inventory of Social Skills Items – Version for Boys

**Page 2 of 3**

<table>
<thead>
<tr>
<th>Question</th>
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</thead>
<tbody>
<tr>
<td>14. When I want to do something, I try to talk other boys into doing it, even if they don't want to.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>15. I make sure that everyone gets a turn when I am involved in a group activity.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>16. I talk only about what I am interested in when I talk to other boys.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>17. I ask other girls for advice.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>18. I tell other boys that they are nice.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>19. I ignore other boys when I am not interested in what they are talking about.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>20. I lie to get out of trouble.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
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### Table 1

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<tbody>
<tr>
<td>21. I always tell other classmates what to do when something needs to be done.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>22. When I am with my best friend, I ignore other boys.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>23. I flirt with another boy's girlfriend when I like her.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>24. I make up things to impress other boys.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>25. I tell other classmates they played a game well when I lose.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>26. I offer to share something with other girls when I know that they would like it.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>27. I lend other boys money when they ask for it.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>28. I hit other boys when they make me mad.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>29. I tell classmates I'm sorry when I know I have hurt their feelings.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>30. I tell the truth when I have done something wrong and other girls are being blamed for it.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
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<tbody>
<tr>
<td>31. I talk more than others when I am with a group of boys.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>32. I ignore other boys when they give me compliments.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>33. I throw things when I get angry.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>34. I offer to loan other boys my clothes for special occasions.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>35. I thank other boys when they have done something nice for me.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>36. I do my share when working with a group of classmates.</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
</tbody>
</table>

http://edcollege.ucf.edu/surveys/TISSboys.htm

6/8/05
37. I call classmates bad names to their faces when I am angry. | ✓ | ✓ | ✓ | ✓ | ✓ |
38. I keep secrets private. | ✓ | ✓ | ✓ | ✓ | ✓ |
39. I tell other boys how I really feel about things. | ✓ | ✓ | ✓ | ✓ | ✓ |
40. I share my lunch with classmates when they ask me to. | ✓ | ✓ | ✓ | ✓ | ✓ |

Please select the best answer to the following questions by clicking in the appropriate circle.

41. What is your racial/ethnic background?
   - African American ✓
   - Asian ✓
   - Caucasian ✓
   - Hispanic ✓
   - Native American ✓
   - Other ✓

42. Please select the option below that BEST describes your current educational status:
   - a. Home-schooled for most classes (do not attend public or private school)
   - b. Attend public or private school for most classes.
   - c. Enrolled in FLVS full time
   - d. Other (please specify): [ ]

   (Answer ONLY if you selected "B" above)

43. If you attend public or private school for most classes, please select the most likely reason you chose to take physical education at FLVS.
   - a. I could not fit regular physical education into my schedule.
   - b. I am self-conscious about exercising in front of my peers.
   - c. I am not athletic enough to enjoy physical education in school.
   - d. I do not like to get all sweaty in school.
   - e. Other (please explain): [ ]

Thank you very much for taking the time to complete this survey! If you are satisfied with your answers, click the submit button below. To restart the survey, click reset.
APPENDIX F

FOLLOW-UP LETTER
Dear FLVS Physical Education Student:

Recently you received an email asking for your assistance in some very important research relating to social development in physical education from the University of Central Florida. I would like to thank those of you who have completed the survey. Your participation is much appreciated! The responses I have received so far have been quite valuable.

I would like to personally encourage those of you who have not responded to do so. By receiving responses from everyone who was selected, I can be sure that the results are representative. Even if you have already completed the course, you can still complete the survey.

Please remember that confidentiality is very important and your response will be anonymous. Your survey responses are in no way linked to your name.

If there is some reason you do not wish to take the survey, it is important that you still complete the student consent form and submit it. I need a response from everyone, either a completed survey or the student consent form stating you do not wish to participate.

Thank you for your assistance. The information that is gathered from this survey could help to make physical education a better experience for future students.

To access the survey, click on the appropriate link. One is for boys and the other is for girls.

boys: [http://edcollege.ucf.edu/surveys/TISSboys.htm](http://edcollege.ucf.edu/surveys/TISSboys.htm)
girls: [http://edcollege.ucf.edu/surveys/TISSgirl.htm](http://edcollege.ucf.edu/surveys/TISSgirl.htm)

Remember to have your parent or guardian complete the parental consent form!

Thank you.
Sincerely,
Bruce Friend
Chief Administrative Officer
FLVS

Debbi Ware
Doctoral Student
University of Central Florida
[ware-house@cfl.rr.com](mailto:ware-house@cfl.rr.com)

If you have any questions, please email Debbi Ware.
APPENDIX G

FINAL LETTER
Final Request to Participate in Physical Education Survey

Dear FLVS Physical Education Student:

The deadline for completing my survey has been set for midnight on Tuesday, May 10, 2005. I cannot express enough the importance of your participation for my research. Please take five minutes and follow the link below. Your responses are valuable to me. By receiving responses from everyone who was selected, I can be sure that the results are representative of all students. Even if you have already completed the course, you can still complete the survey.

If there is some reason you do not wish to take the survey, it is important that you still complete the student consent form and submit it. I need a response from everyone, either a completed survey or the student consent form stating you do not wish to participate.

Again, I would like to thank those of you who have completed the survey. Your participation is much appreciated!

Please remember that confidentiality is very important and your response will be anonymous. Your survey responses are in no way linked to your name.

Thank you for your assistance. The information that is gathered from this survey could help to make physical education a better experience for future students.

To access the survey, click on the appropriate link. One is for boys and the other is for girls.

    boys: http://edcollege.ucf.edu/surveys/TISSboys.htm
    girls: http://edcollege.ucf.edu/surveys/TISSgirl.htm

Remember to have your parent or guardian complete the parental consent form!

    Thank you.
    Sincerely,
    Bruce Friend
    Chief Administrative Officer
    FLVS

Debbi Ware
Doctoral Student
University of Central Florida
ware-house@cfl.rr.com

    If you have any questions, please email Debbi Ware.
LIST OF REFERENCES


