THE RELATIONSHIP BETWEEN PARTICIPATION IN PHYSICAL ACTIVITY AND WORK ETHIC IN COLLEGE STUDENTS

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ABSTRACT

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This study examines the possibility of a relationship between work ethic and physical activity. The researcher administered surveys to college students at Texas State University-San Marcos which measured level of physical activity and work ethic. There have been many studies showing similarities between physical activity and work ethic such as physical, emotional and psychological benefits of physical activity that can carry over into the workplace to improve productivity of employees (Wang & Biddle, 2001). Self-Determination Theory states that people are more motivated to participate in the same activity again if they are intrinsically motivated by their performance than through extrinsic benefits (Deci & Ryan, 1985; Gagne & Deci, 2005). This study explores these similarities and the relationship between participation physical activity and work ethic.

CHAPTER I

INTRODUCTION

Physical activity is known to bring psychological and physical benefits to participants such as positive self-esteem, coping with stress, and health benefits (Iwasaki, Mackay, Mactavish, Ristock, & Bartlett, 2006). Participation in physical activities including individual and team activities can develop positive social skills which may lead to developing positive work ethic (Sivan, 2003). Physical activities can produce positive feelings of self worth, reduce stress, and promote a healthy lifestyle (Patterson & Coleman, 1996). Some of the positive benefits of physical activity, such as emotional benefits, have been known to carry over into the workplace (Snir & Harpaz, 2002). Apart from the emotional benefits of participation in physical activities such as coping with stress (Iwasaki et al., 2006); one may also see improvements at work. Employees who participated in uplifting activities such as individual and team recreation were often more productive at work (Rennar 2007). Positive self esteem is associated with better performance and productivity at work (Frederikson & Harrison, 2005). Softball players performed well when they possessed a positive self-image, and performed poorly when they did not. This seems to show that participation in physical activities can increase positive feelings of self-worth which may lead to a more positive work ethic. Research by Rennar (2007), Frederickson and Harrison (2005), and Snir and Harpaz (2002), seem to suggest a correlation between positive work ethic and a high level of participation in

physical activities. This study will examine the possibility of a relationship between participation in physical activities and positive work ethic.

Purpose of the Study

The purpose of this study is to discover if there is a relationship between participation in physical activities and positive work ethic in college students.

Significance of the Study

There are many studies showing a relationship between participation in physical activities and positive physical, psychological, and emotional benefits (Branscombe & Wann, 1991, Sivan, 2003, Iwasaki et al., 2006, & Rennar, 2007). Few studies have explored the relationship between positive work ethic and physical activity. This research will explore the possibility that a college student's positive work ethic may be directly related to their participation in physical activities. Finding a relationship between physical activities and work ethic could possibly increase the value of recreational participation to employers and employees.

Research Question

1. Is there a statistically significant relationship between participation in physical activities and positive work ethic in college students?

Limitations / Delimitations of the Study

1. The participants for this study will be selected from a sample of convenience at Texas State University-San Marcos and may not represent the population as a whole.
2. All subjects will be male and female college students between the ages of 18-28 years old.

3. All subjects will be selected from Texas State University-San Marcos and will be enrolled in the Personal Fitness and Wellness (P.F.W.) classes during the spring 2010 semester.

Assumptions

1. The subjects will answer all survey questions honestly.
2. The subjects in this study will have participated in physical activities at some point in their lives.
3. The subjects will consist of male and female students of varying activity levels.
4. The subjects will have worked part time or full time at some point in their lives.

Working definitions

1. Work Ethic- Work ethic according to Hatcher (1995), is composed of values that may have an effect on a person's outlook on their job.
2. Physical Activity- Activities that can be performed individually or as a team for the purpose of exercise, relaxation, or amusement.
3. Personal Fitness and Wellness (P.F.W.) classes: Classes offered by Texas State University-San Marcos.

CHAPTER II

LITERATURE REVIEW

Introduction

This study explores the possibility of a relationship between participation in physical activities and work ethic. First this chapter will explore the benefits of physical activity and the levels of intensity of participation. The factors contributing to participation in physical activities will also be explored to provide an understanding of participant's leisure choices.

Work ethic will also be discussed. The history of work ethic will be explored to provide an insight to the origin of work ethic. The factors contributing to the development of positive or negative work ethic will also be explored. Finally the similarities between physical activity participants and participants with positive or negative work ethic, and Self-Determination Theory (Deci & Ryan, 1985), will be discussed along with the instrumentation used to measure both work ethic and physical activity.

Physical Activity

Physical activity includes activities such as recreational, leisure, and team activities and sports. This section will discuss the benefits of participation in physical activities, the different levels of intensity of physical activity, and factors contributing to participant's choice to engage in physical activity.

Benefits of Participation in Physical Activity

Participation in physical activities can teach valuable lessons to participants. One of the many benefits of engaging in physical activities is the opportunity for growth in social skills and feelings of self-worth in college age students (Sivan, 2003). The social skills developed from participating in these activities can also provide opportunities to build positive relationships with other people. Research by Murrell and Gaertner (1992), suggests that athletes who are part of a successful sports team usually have positive relationships with their team members. Recreational and athletic activities can teach teamwork and dedication as well. These physical activities can be excellent for helping youth understand how to deal with success, and with failure. Being able to learn from failure can be an essential lesson for youth. People who are successful may often experience failure before achieving their goals. Research by Heeren and Reque (2001), suggests that sports participation has positive effects on athletes, and having competition seems to enhance these benefits.

Other benefits include leisure patterns' of youth positively affecting adult activities (Scott & Willits, 1998). Research by Siegenthaler and Gonzalez (1997), suggests that participation in physical activities promotes character development in youth that can lead to a healthy lifestyle. Participation in physical and team activities can provide opportunities for participants to learn leadership skills. A study by Sibthorp, Paisley, and Gookin (2007), done on classes instructed by The National Outdoor Leadership School (NOLS) found that participants felt empowered when they were given opportunities to lead activities or choose their outdoor experiences.

Another benefit of physical activity is psychological growth. Research has shown that exercise makes people feel better overall (Beckhouse, Ekkekakis, Biddle, Foskett, & Williams, 2007). Youth participating in team sports experienced depression less and felt more positive self-esteem in a study by Branscombe and Wann, (1991). Breast Cancer survivors who participated in athletic activities with other survivors developed a sense of companionship and overall better self-esteem (Sabiston, McDonough, & Crocker, 2007). Positive self-image can be important for well-being. Well-being is associated with positive experiences in both work and leisure (Bryce & Haworth, 2002). Older adults may benefit from participating in sport and leisure activities as well. Participation in such activities may improve health and life satisfaction (Dionigi, 2006).

Levels of Physical Activity

Benefits from participating in physical activity may be affected by the level of participation in physical activity. There are many different levels of intensity and types of activities to choose from. Some of the different activities include recreational, sport, leisure, and team activities. The level of participation seems to depend on the motivation of the participant. Some participants' are looking for activities that provide competition, others seek physical fitness, and some are simply looking for enjoyment and leisure. The level of intensity of the activity chosen by participants can also determine the type of benefits received by that individual. People who engage in more physically strenuous recreation will have more physical benefits than those who participate in more passive leisure. The mental and social benefits seem to depend on the person's perception of their experience and motivation to participate (Edginton, Hanson, Edginton, & Hudson, 1998).

Factors Contributing to Participation in Physical Activity

Participants are often internally motivated to engage in physical and recreational activities due to the physical, emotional and psychological benefits (Edginton, et al., 1998). The motivation to participate comes from the positive consequences of engaging in such activities. Participants who find activities they enjoy are often more likely to continue to participate in that activity. Other factors include access to the activity, cost of the activity, and time to participate in the activity (Edginton, et al., 1998). These factors can affect the participant's willingness to continue to pursue an activity. The participant may enjoy the physical benefits of rock climbing, but lack the time to go to a local climbing gym. Understanding what motivates participants to return to a particular activity may be helpful in determining what contributes to that person's positive or negative experience of that activity.

Participation in physical activities has an effect on a person's social, physical, and mental growth. These benefits may also carry over into other areas of life including work ethic. The next section will discuss the literature on work ethic.

Work Ethic

According to Hatcher (1995), work ethic is composed of core values that may have an effect on a person's outlook towards their job. This section will discuss the history of work ethic, and factors contributing to positive or negative work ethic.

History of Work Ethic

Work was not always viewed as a positive way to spend one's time. The Greeks and Romans viewed work as an activity that higher ranking members of society did not participate in due to the perceived degrading nature of work. Social standing was

calculated by the amount of free time a person had, not the amount or type of work they had to do (Hill, 2000). Work slowly became more acceptable as people found that working hard led to more substantial monetary gain. People began to view work as a moral responsibility, a way to serve God, and a way to provide for their families (Hill, 2000). Work ethic developed from the feeling of moral responsibility to go to work and the satisfaction people felt from doing so.

Factors Contributing to a Positive or Negative Work Ethic

Many of the benefits of participating in recreational activities are also factors that contribute to positive work ethic such as self-esteem and positive motivation (Bryce & Haworth, 2002, Wang & Biddle, 2001). Some of the factors that may contribute to positive work ethic include how well an employee works with others, their motivation to be successful in their job, and dependability (Petty, 1995). Supervisors seem to highly value employees with a positive work ethic due to an increase in job performance (Petty & Hill, 2005). Self perceptions can also be a factor in work ethic. In the study by Petty and Hill (2005), supervisors had a more positive self perception than their employees leading the authors to conclude that the supervisor's better self perceptions may have led to their promotions. Research by Hatcher (1995), on the positive affects apprenticeship training has on the development of work ethic in employees shows that mentorship can have a significant impact on productivity. Productivity can suffer greatly when the attitudes and behaviors of employees towards work ethic are not favorable. From this research Hatcher (1995), found that maturity and experience played a part in employee's perception of work ethic. The length of time in an apprenticeship training program did not seem to affect the work ethic. Quality of training and topics covered had more of an

influence according to the research (Hatcher, 1995). Stress from work related responsibilities may also affect a person's work ethic. In a study by Dalton (2009), employees felt less excited about their job when they felt stress from their current job related responsibilities. From this study by Dalton (2009), one may conclude that it is important to have a positive work ethic to be successful in one's career choice due to the importance of teamwork in today's workplace. Measuring the level of physical activity participation and work ethic will help to better understand if there is a possibility of a relationship between physical activity participation and work ethic.

Similarities Between Benefits of Participation in Physical Activities and Factors Contributing to Work Ethic

The literature reviewed seems to suggest similar characteristics between people with positive work ethic and people who participate in physical activity. Participation in physical activities can positively motivate a participant in other areas of life such as work (Wang & Biddle, 2001). This seems to show that an increase in leisure by employees may create positive benefits that can carry over into the work place. Leisure time has increased in the USA recently, and research by Snir and Harpaz (2002), indicates that the importance of leisure is increasing, and finding a work/ recreation balance is becoming more important to businesses. The study by Snir and Harpaz (2002), shows some of the benefits leisure oriented employees can gain from a more leisure focused work place such as flexible benefits that would fit the needs of both work oriented and leisure oriented employees, working less hours during the week, and a four day work week.

Employers need to focus on meeting the needs of their employees to increase productivity in the work place. The findings by Snir and Harpaz (2002), showed that employees often enjoy a work environment where they are able to interact with other

people, and where leisure is incorporated in their benefits packages. Using these types of incentives may increase productivity and job satisfaction in employees. Research by Rennar (2007) suggests that employees need uplifting activities outside of work to be productive. Stress seems to have become a concern, and it is increasing the cost of health care for employees due to many stress related illnesses. Stress can lead to negative health and behavior consequences (Hutchinson, Baldwin, & Oh, 2006). Suggestions for improvement included businesses implementing programs to help employees balance their work and personal lives, offering mentoring programs, and career development opportunities. A study by Rennar (2007), seemed to suggest that people do not take enough time to keep themselves mentally and physically healthy which affects productivity at work. Being involved in non-work related activities such as recreation had a positive affect on a person's work/life balance (Rennar, 2007). Participation in recreational activities that involve mentoring and teamwork may be helpful as tools to develop positive work ethic (Rennar, 2007). Mentoring seems to be important in sports as well. Youth in a study by d' Arripe-Longueville, Gernigon, Huet, Cadopi, and Winnykamen (2002), performed better in swimming when their tutors were skilled swimmers themselves rather than novice swimmers. This could be the same in the work place with skilled workers mentoring new workers. Also, importance was placed on youth sports coaches having other coaches or peers to consult with when dealing with coaching situations (Gilbert & Trudel, 2001).

Active leisure can be a very effective way of coping with stress. Researchers Iwasak, et al. (2006), examined the effectiveness of a wide variety of leisure activities on coping with daily stress. The ability to use physical activity as a way of coping with

stress seemed to promote an active lifestyle in participants and can lead to a more positive work ethic.

Self-Determination Theory

Self-Determination Theory (S.D.T.) by Deci and Ryan (1985), discusses the importance of intrinsic motivation to a person's decision making. According to Ryan and Deci (2000), the three needs identified as important for a person's well-being are autonomy, relatedness and competence. When these needs are met people are able to intrinsically motivate themselves to do things such as participate in physical activities, or perform well at work.

Self-Determination Theory (S.D.T.) states that people will be more likely to participate in the same activity again if motivated to work hard or participate in activities because they feel good about their performance rather than working for extrinsic rewards, and that people have a tendency towards growth (Deci & Ryan, 1985; Gagne & Deci, 2005; Markland, Ryan, Tobin, & Rollnick, 2005). The feelings of competence in the activity performed, a sense of autonomy, and feelings of relatedness to other participants, teachers, bosses, or coaches are what motivates people to continue to participated in the activity, classroom, or office setting (Ryan & Deci, 2000).

There are five sub-theories to Self-Determination Theory. The first, Cognitive Evaluation Theory deals with intrinsic motivation and internal rewards such as positive feelings that come from doing an activity simply because the participant wants to do that activity. Organismic Integration Theory concerns behaviors that produce extrinsic rewards or rewards apart from the behavior itself and when these rewards are internalized they increase a person's feeling of autonomy. Causality Orientation Theory discusses

how a person's choice of environment can affect their behavior. Basic Psychological Needs Theory discusses the importance of the three basic needs of autonomy, relatedness, and competence. If one of these needs is not met than a person's well-being will be impacted. The fifth theory, Goal Contents Theory, is concerned with a person's goal orientation. Extrinsic goals such as money, popularity, and appearance provide less satisfaction of the basic needs than goals of having close relationships, and personal growth ("Self-Determination Theory" taken from the University of Rochester Website, 2008). These five theories explain the different components of intrinsic motivation and the fulfillment of the three basic needs.

Self-Determination Theory seems to show that if participants learn to be intrinsically motivated to participate in physical activities, than this same behavior may carry over into their work ethic. The intrinsic reward of positive feelings from participation in a task such as physical activity as described in Cognitive Evaluation Theory may increase a person's motivation to perform the task again. This Intrinsic motivation may carry over into other areas of a person's life such as work tasks and may increase a person's ability to perform tasks well. This would fulfill the basic needs of autonomy, relatedness, and competence that are the basis of Self-Determination Theory.

Measuring Physical Activity

There are many ways to measure physical activity. This section will discuss the instruments used to measure recent physical activity, level of intensity, and types of activities. Instrumentation used to measure the level of participation in physical activity includes the Physical Activity Scale for the Elderly (P.A.S.E.) which measures level of activity and intensity of activities (Washburn, Smith, Jette, & Janney, 1993). The Godin

Leisure-Time Exercise Questionnaire measures the frequency of participation in physical activity and the intensity (Godin & Shepard, 1997). The Stanford 7-day Recall (P.A.R.), is also used to determine frequency and intensity of participation. The P.A.R. has been used with many different populations and age ranges successfully (Taylor-Piliae, Norton, Haskell, Mahbouda, Fair, Iribarren, Hlatky, Go, & Fortman, 2006). Interviews were also often used in the literature reviewed to understand perceptions of participants in qualitative studies (Iwasaki, et al. 2006). Another instrument that has been used is the Stanford Brief Physical Activity Survey (S.B.A.S.). This is a two item brief survey to measure physical activity. It is easy to administer and easy for participants to understand and recall. For the purpose of this study, the S.B.A.S. appears to be the best choice since it has been used and validated for measuring physical activity levels in adults (Taylor-Piliae, et al., 2006).

Measuring Work Ethic

The methods of measuring work ethic include the use of survey instruments. Petty and Hill (2005), used the Occupational Work Ethic Inventory (O.W.E.I.) which measures self perceptions of employees in their study. This survey has been successfully used in studies measuring the level of work ethic in employees (Petty & Hill, 2005, Petty, 1995). Another instrument is the Employability Skills Assessment (E.S.A.) which also measures work ethic (Hill, 2000). Both instruments have similar formats and questions to measure work ethic. The O.W.E.I. has been used more often than the E.S.A. The O.W.E.I. will be used in this study.

Conclusion

The literature suggests that there may be a relationship between participation in physical activities and positive work ethic. Employees are often more productive when regularly engaging in positive physical activities (Sivan, 2003). In the study by Petty and Hill (2005), the author's findings suggested that employees with a more positive view of their work performance were more likely to hold a higher position at work. Sibthorp, Paisley, and Gookin (2007), studied participants in outdoor education programs and found that participants given opportunities to lead felt empowered and performed well. From this it seems that possessing a positive self-image can be having a positive effect on work performance. Research seems to suggest that participation in individual and team activities can improve social skills and self-esteem, both important for having positive work ethic. Murrell and Gaertner (1992), suggest that a positive team experience can affect success. While the benefits of leisure opportunities have been studied extensively, it seems more research can be conducted in the areas of physical activities' affect on work ethic.

CHAPTER III

METHODOLOGY

Introduction

This research project was designed to explore the possibility of a correlation between work ethic and physical activity. In order to understand the elements in this research, information regarding level of physical activity and work ethic were needed. Comparisons were then made to understand the relationship between work ethic and physical activity. This chapter addresses selection of subjects, instrumentation, and collection of data, data screening and reliability.

Selection of Subjects

This study was approved by the Institutional Review Board (IRB) of Texas State University-San Marcos. The participants were chosen from a sample of convenience from students at Texas State University-San Marcos. Criteria for selecting participants were 1) they were enrolled in a P.F.W. class during the spring 2010 semester; 2) they were between the ages of 18-28. Two hundred thirty-two subjects were administered surveys and of those one hundred and thirty (56%) were complete and used in this study.

Consent Form

Subjects were asked to give consent to participate in the study. The participants were provided with a passive consent form with the surveys which contained both the Institutional Review Board's and primary investigator's contact information. Subjects were not asked for

names or to sign the consent, but were asked to provide ethnicity/ race, P.F.W. class section, and gender on the surveys. By completing surveys and returning them to envelopes provided subjects gave consent to participate. This process ensured that subjects remained anonymous.

Instrumentation

Subjects completed a survey which was drawn from two instruments asking questions about participation in physical activities and work ethic. Permission was obtained from the authors of both instruments before giving out the surveys. The Occupational Work Ethic Inventory (O.W.E.I.) and Stanford Brief Physical Activity Survey (S.B.A.S.) surveys were combined to one survey to determine Work Ethic and Activity Level. Subjects were assigned a number for identification purposes.

Collection of Data

A sample of convenience was taken from the P.F.W. classes offered at Texas State University-San Marcos during the spring 2010 semester. Data were entered into Microsoft Excel and Multiple Regression using the General Linear Model was used to conduct the analysis. The regression included 2-way interactions to establish if the relationship between Work Ethic and Physical Activity are moderated by Race or Gender. Data were screened for outliers, and for data entry errors. Surveys with omitted questions were discarded. Questionnaires with all answers the same were discarded.

Table 1
Variables

Dependant Variable	Independent	Type of

Table 1 Continued

Dependant	Work Ethic	Ordinal
Independent	Physical Activity	Ordinal
	Gender	Nominal
	Ethnicity/Race	Nominal
	P.F.W. Class	Nominal

Although regression is being used, and Work Ethic is identified as the dependant variable (Table 1), this study will not establish a causal relationship. Any significance found will indicate a correlation, not causation. Further work using technique such as matched pairs would have to be done to establish any causation.

Reliability

The validity and reliability have been established for both instruments in prior studies. The S.B.A.S. has been used successfully in other studies to measure physical activity levels for purposes similar to this study (Taylor-Piliae, et al., 2006, Taylor-Piliae, Fair, Haskell, Varady, Iribarren, Hlatky, Go, & Fortmann, 2010). The authors from the above studies suggested using this instrument with younger populations to further test reliability since it has been used most often with middle to older aged adults, though Talor-Piliae et al. (2006, p.604), suggested it has demonstrated potential to be valid with all populations. This instrument was the best choice for this study because it allows the user to get a quick assessment of the subject's everyday physical activity levels, and according to Taylor-Piliae, et al., (2006), it is the only brief survey that classifies subjects into five physical activity levels. The S.B.A.S. in the study by Taylor-Piliae et al. (2006, p.602), when used to find the national activity recommendations of 150 minutes per week or more had a sensitivity of .73 and specificity of .61 The O.W.E.I. has been used in

many studies (Petty, 1995, Brauchle & Azam, 2004, Hill & Fouts, 2005), and has been shown to be a valid instrument in many different populations. The O.W.E.I. factors showed a Cronbach's alpha score of .93 for Factor I, .89 for Factor II, and .87 for Factor III. Despite this, we will calculate the reliability for the O.W.E.I. instrument using Cronbach's alpha, which is a measure of internal reliability or consistency and ranges from 0.0 to 1.0. An alpha of .80 or greater is desirable.

CHAPTER IV

RESULTS

Introduction

This chapter will discuss the results of the data analysis of the participant's answers on the survey instrument. The purpose of this study was to explore the relationship between participation in physical activity and work ethic in college students. The participants were selected from students enrolled in the Personal Fitness and Wellness (P.F.W.) classes at Texas State University-San Marcos during the spring 2010 semester. Subjects were given a survey which was drawn from two instruments asking questions about activity level and work ethic. The survey instruments used were the Occupational Work Ethic Inventory (Petty & Hill 1995), and the Stanford Brief Activity Survey (Taylor-Piliae, et al., 2006).

Respondent Frequencies

A sample of convenience was taken from students enrolled in the P.F.W. classes at Texas State University during the spring 2010 semester. Permission was obtained from the P.F.W. course instructors to give surveys during class time. Survey instruments with missing data were not used in the final analysis. The sample size for this study was 130 complete survey instruments with no missing data. The sample consisted of 28 (21.5 %) male and 102 (78.5 %) female respondents (Table 2). Participants were also asked to provide Ethnicity/Race on the survey instrument. Table 3 shows that 99 (76.2%) of

the respondents were Non-Hispanic, 30 (23.1%) were Hispanic, and 1 (.8%) of the respondents was Hispanic/Non-Hispanic. Table 4 shows that 109 (83.8 %) of subjects were White, 2 (1.5 %) were Asian, 8 (6.2 %) were Black, 1 (.8 %) were Native Hawaiian/ Pacific Islander, and 10 (7.7 %) listed themselves as Other.

Table 2
Frequencies: Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	102	78.5	78.5	78.5
Male	28	21.5	21.5	100.0
Total	130	100.0	100.0	

Table 3
Frequencies: Ethnicity

Ethnicity	Frequency	Percent	Valid Percent	Cumulative Percent
Hispanic	30	23.1	23.1	23.1
Hispanic/Non-Hispanic	1	0.8	0.8	23.8
Non-Hispanic	99	76.2	76.2	100.0
Total	130	100.0	100.0	

Table 4
Frequencies: Race

Race	Frequency	Percent	Valid Percent	Cumulative Percent
Asian	2	1.5	1.5	1.5
Black	8	6.2	6.2	7.7
Native Hawaiian/ Pacific Islander	1	0.8	0.8	8.5
Other	10	7.7	7.7	16.2
White	109	83.8	83.8	100.0
Total	130	100.0	100.0	

Table 5
Frequencies: P.F.W. Class Section

P.F.W. Class Section	Frequency	Percent	Valid Percent	Cumulative Percent
Aerobics(1110A)	34	26.2	26.2	26.2
Aerobics(1110A2)	3	2.3	2.3	28.5
Aerobics(1110A3)	21	16.2	16.2	44.6
Badminton(1155A)	11	8.5	8.5	53.1
Raquetball(1155G)	16	12.3	12.3	65.4
Volleyball(1160B)	27	20.8	20.8	86.2
Volleyball(1160C)	18	13.8	13.8	100.0
Total	130	100.0	100.0	

Table 5 shows the number of respondents from each P.F.W. section. Seven P.F.W. classes participated in the study. The P.F.W. section with the most respondents was Aerobics 1110A with 34 complete surveys (26.2 %) of the sample of 130 used in the analysis. All of the participating classes were open to both male and female students. The final sample of complete surveys consisted of more female respondents than male respondents.

Survey Instruments

The frequency results of the analysis for the Stanford Brief Activity Survey (S.B.A.S.) by Taylor-Piliea et al. (2006), are shown in Table 6. The S.B.A.S. was used to determine level of physical activity. Question one asks subjects about there level of physical activity at work. The majority of respondents (50 or 38.5%) indicated they did not have a job. 34 (26.2%) chose “sitting or standing”, 33 (25.4%) of respondents said they walked or use their hands, and another 13 (10.0%) indicated that their activity level at work involved “lifting or carrying heavy objects”. “Hard physical labor” was not chosen by any of the respondents. Question two asks subjects about their physical

activity during leisure time. The largest number of respondents 42 (32.3%) chose "moderate activity 3 times/week"; 28 (21.5%) chose "heavy activity 3 times/week"; 27 (20.8%) chose "physically active mostly on the weekends", 18 (13.8%) of respondents chose "without much physical activity" and 15 (11.5%) chose "heavy activity 5 or more times/week".

Table 6

Frequencies for SBAS answers

S.B.A.S. Question	Frequency	Percent	Valid Percent	Cumulative Percent
SBAS 1: I spend most of my work day				
I do not have a job	50	38.5	38.5	38.5
Sitting or standing	34	26.2	26.2	64.6
Walking or using my hands	33	25.4	25.4	90.0
Lifting or carrying heavy objects	13	10.0	10.0	100.00
Hard physical labor	0	0.0	0.0	
Total	130	100	100	
SBAS 2: I spend my leisure time				
Without much physical activity	18	13.8	13.8	13.8
Physically active mostly on the weekends	27	20.8	20.8	34.6
Moderate activity 3 times/week	42	32.3	32.3	66.9
Heavy activity 3 times/week	28	21.5	21.5	88.5
Heavy activity 5 or more times/week	15	11.5	11.5	100.00
Total	130	100.00	100.00	

The O.W.E.I. was used to determine work ethic. For the Occupational Work Ethic Inventory (Petty & Hill, 1995), respondents rated themselves from never to always on a scale of 1 (never) to 7 (always) for each descriptor. The scoring method for this instrument puts the descriptors into 3 Factors; Interpersonal skills, Initiative, and Being

Dependable. There were 15 items in Factor I, *Interpersonal skills* which when combined were used to determine if the respondent had positive interpersonal relationships that would contribute to positive job performance (Petty & Hill, 1995). The 15 items in Factor I included; courteous, friendly, cheerful, considerate, pleasant, cooperative, helpful, likeable, devoted, loyal, well groomed, patient, appreciative, hard working, modest, emotionally stable, and stubborn. There were 16 items in Factor II, *Initiative* which when combined were used to determine if the respondents were motivated to advance their positions on the job. The 16 items in Factor II included; perceptive, productive, resourceful, initiating, ambitious, efficient, effective, enthusiastic, dedicated, persistent, accurate, conscientious, independent, adaptable, persevering, and orderly. The 7 items in Factor III, *Being dependable* were used to describe respondent's ability to perform job duties and meet expectations (Petty & Hill, 1995). The 7 items in Factor III included; following directions, following regulations, dependable, reliable, careful, honest, and punctual. Table 7 shows the descriptive statistics for each Factor. For each descriptor in the Factors participants were asked to rate themselves on a scale of 1(never) to 7(always) and the scores are the average of the item in that construct. Factor I had a mean of 6.0703, a median of 6.0667, and a standard deviation of .57984. Factor II had a mean of 5.7394, a median of 5.7500, and a standard deviation of .65255 which was highly skewed (-.029). Factor III had a mean of 6.1143, a median of 6.1429, and a standard deviation of .60463. The scores show that participants rated themselves high on work ethic.

Table 7
Statistics for O.W.E.I.

	Interpersonal Skills	Initiative	Being Dependable
N Valid	130	130	130
Missing	0	0	0
Mean	6.70	5.73	6.11
Median	6.06	5.75	6.14
Standard Deviation	0.57	0.65	0.60
Skewness	-0.49	- 0.029	-0.56
Std. Error of Skewness	0.21	0.21	0.21
Minimum	4.4	4.25	4.71
Maximum	7.0	7.0	7.0

Reliability

The validity/ reliability have been established for both instruments in prior studies. Despite reliability being previously established, Cronbach's alpha was used to calculate reliability for the O.W.E.I. A score of .80 or higher is desirable. Table 8 shows Cronbach's alpha for Factors I, II, and III of the O.W.E.I. Factor I had a score of (.899), Factor II had a score of .898, and Factor III had a score of .766. These scores suggest relatively high interval consistency and good reliability.

Table 8
Reliability Statistics

O.W.E.I. Factor	Cronbach's Alpha	N of Items
Factor I Interpersonal Skills	.899	15
Factor II Initiative	.898	16
Factor III Being Dependable	.766	7

T-Tests

T-tests were conducted to determine if there were differences among Gender and Ethnicity in how participants responded to items in the survey (tables 9 and 10). The results in table 9 shows the only significant difference found among gender was the work activity level (S.B.A.S.1) ($t = 2.105$, $df = 128$, $p = .037$) in which women had a higher work activity level than men. Table 10 shows T-Tests for Ethnicity. Hispanics rated themselves significantly higher in Factor I: Interpersonal Skills ($t = 2.067$, $df = 127$, $p = .041$), Factor III: Being Dependable ($t = 2.174$, $df = 127$, $p = .032$), and Overall Work Ethic ($t = 2.215$, $df = 127$, $p = .029$). There was no significant difference in activity level.

Table 9
T-Test: Gender

	Sex	N	Mean	Std. Deviation	Std. Error Mean
S.B.A.S. 1	Female	102	2.17	.976	.097
	Male	28	1.71	1.117	.211
S.B.A.S. 2	Female	102	2.89	1.177	.116
	Male	28	3.21	1.287	.211
Overall Activity	Female	102	2.52	.740	.073
	Male	28	2.46	.706	.133
Interpersonal Skills	Female	102	6.09	.565	.056
	Male	28	5.96	.629	.118
Initiative	Female	102	5.78	.635	.062
	Male	28	5.59	.702	.132
Being Dependable	Female	102	6.15	.564	.055
	Male	28	5.94	.720	.136
Overall Work Ethic	Female	102	6.01	.537	.053
	Male	28	5.83	.642	.121

Independent Samples Test

	Levene's Test for Equality of Variances		T-test for Equality of Means						
	F	Sig.	t	df	sig. (2-tailed)	Mean Difference	Std. Error Difference	95%Confidence Interval of the Difference	
								Upper	*Lower*

Table 9 Continued

S.B.A.S. 1									
Equal Variances Assumed	.609	.436	2.105	128	.037	.452	.215	.027	.878
Equal Variances Not Assumed			1.948	39.029	.059	.452	.232	-.017	.922
S.B.A.S. 2									
Equal Variances Assumed	.958	.329	-.1258	128	.211	-.322	.256	-.829	.185
Equal Variances Not Assumed			-1.195	40.246	.239	-.322	.270	-.867	.223
Overall Activity									
Equal Variances Assumed	.287	.593	.416	128	.678	.065	.156	-.244	.374
Equal Variances			.428	44.682	.671	.065	.152	-.241	.371

Table 9 Continued

Not Assumed									
Interpersonal Skills									
Equal Variances Assumed	1.150	.286	1.043	128	.299	.129	.123	-.115	.373
Equal Variances Not Assumed			.981	39.787	.332	.129	.131	-.136	.394
Initiative									
Equal Variances Assumed	.575	.449	1.35	128	.177	.188	.138	-.086	.463
Equal Variances Not Assumed			1.28	39.956	.207	.188	.146	-.108	.485
Being Dependable									
Equal Variances Assumed	3.31	.071	1.64	128	.103	.210	.128	-.042	.464
Equal Variances Not Assumed			1.43	36.591	.161	.210	.147	-.087	.508
Overall Work Ethic									
Equal Variances Assumed	1.93	.167	1.47	128	.144	.176	.119	-.061	.413
Equal Variances Not Assumed			1.34	38.009	.192	.176	.132	-.092	.444

Table 10

T-Test: Ethnicity

	Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
S.B.A.S. 1	Hispanic	30	1.93	.944	.172
	Non-Hisp.	99	2.10	1.045	.105
S.B.A.S. 2	Hispanic	30	3.00	1.145	.209
	Non-Hisp.	99	2.94	1.227	.123
Overall Activity	Hispanic	30	2.47	.718	.131
	Non-Hisp.	99	2.52	.735	.073
Interpersonal Skills	Hispanic	30	6.26	.531	.097
	Non- Hisp.	99	6.01	.586	.059
Initiative	Hispanic	30	5.94	.673	.123
	Non-Hisp.	99	5.68	.640	.064
Being Dependable	Hispanic	30	6.32	.513	.094
	Non-Hisp.	99	6.06	.608	.061
Overall Work Ethic	Hispanic	30	6.17	.529	.096
	Non-Hisp.	99	5.92	.563	.056

Independent Samples Test

	Levene's Test for Equality of Variances		T-test for Equality of Means						
	F	Sig.	t	df	sig. (2-tailed)	Mean Difference	Std. Error Difference	95%Confidence Interval of the Difference	
								Upper	*Lower*
S.B.A.S. 1									
Equal Variances Assumed	1.72	.192	-.787	127	.433	-.168	.213	-.589	.254
Equal Variances Not Assumed			-.831	52.370	.410	-.168	.202	-.573	.237
S.B.A.S. 2									
Equal Variances Assumed	1.422	.235	.241	127	.810	.061	.252	-.438	.559
Equal Variances Not Assumed			.250	50.898	.804	.061	.243	-.427	.548
Overall Activity									
Equal Variances Assumed	.007	.931	-.351	127	.726	-.053	.152	-.355	.248
Equal Variances Not Assumed			-.356	48.868	.724	-.053	.150	-.356	.249

Table 10 Continued

Interpersonal Skills									
Equal Variances Assumed	.222	.638	2.067	127	.041	.247	.119	-.010	.484
Equal Variances Not Assumed			2.181	52.290	.034	.247	.113	.019	.475
Initiative									
Equal Variances Assumed	.259	.612	1.888	127	.061	.255	.135	-.012	.522
Equal Variances Not Assumed			1.839	46.082	.072	.255	.139	-.024	.534
Being Dependable									
Equal Variances Assumed	1.964	.164	2.174	127	.032	.266	.122	.023	.509
Equal Variances Not Assumed			2.382	55.968	.021	.266	.111	.042	.490
Overall Work Ethic									
Equal Variances Assumed	.090	.765	2.215	127	.029	.256	.115	.027	.485
Equal Variances Not Assumed			2.290	50.536	.026	.256	.111	.031	.481

Oneway ANOVA

A Oneway ANOVA (table 11) was used to determine differences among Race because there was more than one level of Race. There was not a significant difference between the groups (S.B.A.S. 1 p= .823, S.B.A.S. 2 p= .107, Overall Activity p= .383, Interpersonal Skills p= .773, Initiative p= .867, Being Dependable p=.967, and Overall Work Ethic p= .927).

Table 11
Oneway ANOVA: Race

		Sum of Squares	df	Mean Square	F	Sig.
S.B.A.S 1	Between Groups	1.612	4	.403	.379	.823
	Within Groups	132.765	125	1.062		
	Total	134.377	129			
S.B.A.S 2	Between Groups	10.933	4	2.733	1.943	.107
	Within Groups	175.875	125	1.407		
	Total	186.808	129			
Overall Activity	Between Groups	2.247	4	.562	1.052	.383

Table 11 Continued

	Within Groups	66.722	125	.534		
	Total	68.969	129			
Interpersonal Skills	Between Groups	.641	4	.154	.449	.773
	Within Groups	42.758	125	.342		
	Total	43.372	129			
Initiative	Between Groups	.549	4	.137	.315	.867
	Within Groups	54.382	125	.435		
	Total	54.931	129			
Being Dependable	Between Groups	.209	4	.052	.139	.967
	Within Groups	46.950	125	.376		
	Total	47.159	129			
Overall Work Ethic	Between Groups	.287	4	.072	.220	.927
	Within Groups	40.767	125	.326		
	Total	41.054	129			

Correlations

Table 12 shows correlation to determine if a relationship existed between physical activity and work ethic. The scores on the S.B.A.S. did not have a significant correlation with the scores on the O.W.E.I. ($r = .093$, $p \geq .295$) suggesting that the Null Hypothesis should not be rejected. The T-tests found differences in gender with women rating themselves higher than men on work ethic and in Ethnicity with Hispanics rating themselves higher than non-Hispanics on overall activity level. These findings were small but significant showing that while there was no direct relationship between work ethic and physical activity there was significant difference in how women rated themselves higher in work ethic and Hispanics rated themselves higher in physical activity.

Table 12:
Correlations

		Interpersonal Skills	Initiative	Being Dependable	Overall Work Ethic	S.B.A.S. 1	S.B.A.S. 2	Overall Activity
Interpersonal Skills	Pearson Corr.	1	.830**	.753**	.932**	.110	.036	.107
	Sig(2-tailed)		.000	.000	.000	.211	.686	.228
	N	130	130	130	130	130	130	130
Initiative	Pearson Corr.	.830**	1	.735**	.933	.084	.076	.121
	Sig(2-tailed)	.000		.000	.000	.342	.390	.170
	N	130	130	130	130	130	130	130
Being Dependable	Pearson Corr.	.753**	.735**	1	.899**	.061	-.020	.026
	Sig(2-tailed)	.000	.000		.000	.493	.823	.769
	N	130	130	130	130	130	130	130
Overall Work Ethic	Pearson Corr.	.932**	.933**	.899**	1	.092	.034	.093
	Sig(2-tailed)	.000	.000	.000		.298	.697	.295
	N	130	130	130	130	130	130	130
S.B.A.S.1	Pearson Corr.	.110	.084	.061	.092	1	-.143	.580**
	Sig(2-tailed)	.211	.342	.493	.298		.105	.000
	N	130	130	130	130	130	130	130
S.B.A.S.2	Pearson Corr.	.036	.076	-.020	.034	-.143	1	.723**
	Sig(2-tailed)	.686	.390	.823	.697	.105		.000
	N	130	130	130	130	130	130	130
Overall Activity	Pearson Corr.	.107	.121	.026	.093	.580**	.723**	1
	Sig(2-tailed)	.228	.170	.769	.295	.000	.000	
	N	130	130	130	130	130	130	130

** Correlation is significant at the .0.01 level (2-tailed)

The original intent was to do a multivariate regression and include Gender, Ethnicity, and Race. When these variables were included in the model, they did not make a significant improvement in the amount of variance explained. Therefore, they were not included in the analyses reported here.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to examine the possibility of a relationship between physical activity and work ethic using a combined O.W.E.I. (Petty & Hill 1995), and S.B.A.S. (Taylor-Piliae et al., 2006), to measure work ethic and physical activity. One hundred and thirty male and female college students completed the survey.

Conclusions

Within the limitations of this research, it is concluded that there was not a significant correlation ($p = .05$ or less), between work ethic and physical activity so the null hypothesis was not rejected for the variables of work ethic and physical activity. From this study, there does not appear to be a relationship between work ethic and level of activity.

The factors that contribute to positive work ethic and motivation to participate in physical activity such as emotional, psychological, and physical benefits (Edginton, et al., 1998) seemed to be related. The findings in this study did not show a relationship between physical activity and work ethic, but there is evidence in other research of intrinsic motivation in the work place and in sports and physical activity contributing to better performance. Self-Determination Theory (Deci & Ryan, 1985), suggests that people are intrinsically motivated by the satisfaction they feel from performing well in

activities such as physical activity and work. People who are intrinsically motivated may be able to perform tasks more efficiently (Ryan & Deci, 2000). This seems to suggest that more work needs to be done to determine if a relationship between physical activity and work ethic exists. Based on the literature there are similar factors contributing to participation in physical activity and work ethic however, the findings in this study did not show a significant relationship between physical activity level and work ethic in college students. More research needs to be conducted to determine if a relationship exists.

However, there were interesting findings when the demographics were examined. There were more female (102 =78.5%) than male (28=21.5%) respondents in the final analysis. Women reported a statistically significant higher work activity level than men (S.B.A.S.1). There were also more Non-Hispanic respondents than Hispanic. The responses to the questions on the S.B.A.S.1 revealed that 50 (38.5%) of respondents did not have a job. This may have had an effect on their answers to the O.W.E.I. because they do not have direct work experience. There were approximately the same number of respondents who walked or used their hands (33= 25.4%), and had to sit or stand (34=26.2%). These data show that the majority of the respondents in this study did not work in a job that requires significant physical activity on a daily basis. The S.B.A.S.2 revealed that the majority of respondents (42= 32.3%) had a moderate activity level during their leisure time and exercised 3 or more times a week, 28(21.5%) spent their leisure time doing heavy activity 3 or more times a week, and 27 (20.8%) were more active on the weekends. Only 18 (13.8%) respondents said they spent their leisure time without much physical activity, and 15 (11.5%) spent their time doing heavy activity 5 or

more times a week. These results show that while the majority of respondents do not spend their leisure time doing more sedentary activities, they also do not participate in more rigorous activity on a consistent basis.

The mean scores of the three factors of the O.W.E.I. revealed that people rated themselves the highest on Factor III being dependable (m=6.11 out of 7). The lowest score was on Factor II initiative (m=5.74 out of 7). Factor I had a mean score of 6.07. All of the mean scores were relatively high on the scale. The respondents seem to view themselves as having good work ethic overall. Hispanics rated themselves significantly higher than Non-Hispanics on work ethic when looking at Factor I: Interpersonal Skills, Factor III: Being Dependable and Overall Work Ethic. There were no other significant findings.

Students in this study had a moderate to high activity level and seemed to perceive themselves as having good work ethic, but there was not a relationship between the two in this study. Previous research seemed to suggest a correlation between work ethic and physical activity as in the study by Wang and Biddle (2001), which showed that participation in physical activities can positively motivate a participant in other areas of life such as work. Research by Rennar (2007) suggests that employees need uplifting activities outside of work to be productive.

Limitations

There were some limitations to this study. The subjects for this study were selected from a sample of convenience at Texas State University-San Marcos and may not represent the population as a whole. All of the subjects were male and female college students between the ages of 18-28 years old so there may be differences in

findings with other age groups. This group of college students rated themselves high in work ethic and findings may change if this study were conducted with other age groups and populations with more work/life experience. All subjects were selected from Texas State University-San Marcos and were enrolled in the P.F.W. classes during the spring 2010 semester. There were more Female respondents than Male in the P.F.W. classes, so findings may change if the sample had an equal number of Male and Female students.

One of the key limitations is the uniformity of the sample. Since the sample consisted of college students repeating this study with students who have not attended college or with adults at different stages of their lives may produce different results. The survey instruments used were self-reporting instruments which is dependant on the self perceptions of the subjects. Subjects may not have an accurate self perception and this may have affected the results. Research on directly observed performance at work and physically may yield different results. The S.B.A.S. only had to questions for physical activity and a more in depth questionnaire may have changed the results. Class selection was another limitation. Subjects in this study were all in active P.F.W. classes, and a study with a broader sample of classes such as less active sports and physical activities may have different results.

Recommendations

It is recommended that further studies should be conducted to explore the possibility of a relationship between physical activity and work ethic because the results of this study did not support the literature. Research examining the factors that influence positive motivation to participate in physical activity and work ethic may be beneficial as this may reveal similar factors contributing to positive work ethic and physical activity

participation. There is a need to examine the work ethic of different age groups as well as this study only looked at the college age level. Older groups of working adults as well as research with groups of athletes in team and individual sports may produce different results. Additional research conducted with a more diverse sample may reveal a relationship between work ethic and physical activity.

APENDIX A:

IRB APPROVAL FORM

TEXAS STATE UNIVERSITY
SAN MARCOS
The rising STAR of Texas

Institutional Review Board

Request For Exemption

Certificate of Approval

Applicant: Lauren Timco

Request Number : EXP2010H5551

Date of Approval: 04/26/10

Assistant Vice President for Research and Federal Relations

Chair, Institutional Review Board

Return to IRB Home

APPENDIX B:

SURVEY INSTRUMENT

Date:

Survey for The Relationship Between Physical Activity and Work Ethic in College Students

Purpose of the project

The purpose of this project is to examine the possibility of a relationship between Physical Activity and Work Ethic. The instruments used for this study will be a combination of the Occupational Work Ethic Inventory (O.W.E.I.) to measure work ethic and the Stanford Brief Activity Survey (S.B.A.S.). The participants for this study will be selected from a purposive sample of students from Texas State University-San Marcos who are enrolled in one of the Personal Fitness and Wellness class sections during the spring 2010 semester. The survey instrument contains questions asking respondents to indicate their current participation in physical activity and their attitudes towards work. Data from the surveys will be collected and entered into Microsoft Excel. Multiple regression using the general linear model will be used for data analysis.

Your rights

Category 2 exempts research involving survey procedures under the following conditions: no identifiers are linked to the respondents and disclosure of the responses would not place respondents at risk for criminal or civil liability or be damaging to their financial standing, employability, or reputation. You will not be asked to provide your name, and an anonymous consent form will be used. You have the option to refuse participation. The only information you will be asked to provide is ethnicity/ race, gender, and P.F.W. class section. The survey will be collected in envelops to keep your identity anonymous.

Thank you for your participation!

Lauren Timco, Graduate Student, Texas State University IRB# EXP2010H5551

Phone: 830-660-0310 E-mail: lt1134@txstate.edu

For questions regarding research, participants rights, and/ or research related injuries to participants please contact IRB Chair, Dr. Jon Lasser (512-245-3413, e-mail: lasser@txstate.edu), or Ms. Becky Northcut, Compliance Specialist (512-245-2102).

1. Please circle the letter next to one statement that best describes the kinds of physical activity you usually performed while on the job this last year. If you are not gainfully employed outside the home but perform work around the home regularly, indicate that activity in this section

A	If you have no job or regular work, circle letter A and go on to question 2.
B	I spent most of the day sitting or standing. When I was at work, I did such things as writing, typing, talking on the telephone, assembling small parts, or operating a machine that takes very little exertion or strength. If I drove a car or truck while at work, I did not lift or carry anything for more that a few minutes each day.
C	I spent most of the day walking or using my hands and arms in work that required moderate exertion. When I was at work, I did such things as delivering mail, patrolling on guard duty, doing mechanical work on automobiles or other large machines, house painting, or operating a machine that requires some moderate-activity work of me. If I drove a truck or lift, my job required me to lift and carry things frequently
D	I spent most of the day lifting or carrying heavy objects or moving most of my body in some other way. When I was at work, I did such things as stacking cargo or inventory, handling parts or materials, or doing work like that of a carpenter who builds structures or a gardener who does most of the work without machines.
E	I spent most of the day doing hard physical labor. When I was at work, I did such things as digging or chopping with heavy tools or carrying heavy loads (bricks, for example) to the place where they were to be used. If I drove a truck or operated equipment, my job also required me to do hard physical work most of the day with only short breaks.

2. Please circle the letter next to one statement that best describes the kinds of physical activity you usually performed during your leisure time during this last year.

F	Most of my leisure time was spent without very much physical activity. I mostly did things like watching television, reading, or playing cards. If I did anything else, it was likely to be light chores around the house or yard or some easy-going game like bowling or catch. Only occasionally, no more than once or twice a month, did I do anything more vigorous, like jogging, playing tennis, or active gardening.
G	Weekdays, when I got home from work, I did few active things, but most weekends I was able to get outdoors for some light exercise—going for walks, playing a round of golf (without motorized carts), or doing some active chores around the house.
H	Three times per week, on average, I engaged in some moderate activity, such as brisk walking or slow jogging, swimming, or riding a bike for 15–20 minutes or more, or I spent 45 minutes to an hour or more doing moderately difficult chores, such as raking or washing windows, mowing the lawn or vacuuming, or playing games such a doubles tennis or basketball.
I	During my leisure time over the past year, I engaged in a regular program of physical fitness involving some kind of heavy physical activity at least three times per week. Examples of heavy physical activity are jogging, running, or riding fast on a bicycle for 30 minutes or more; heavy gardening or other chores for an hour or more; active games or sports such as handball or tennis for an hour or more; or a regular program involving calisthenics and jogging or the equivalent for 30 minute or more.
J	Over the past year, I engaged in a regular program of physical fitness along the lines described in the last paragraph (I), but I did it almost *daily*—five or more times per week.

3. For each work ethic descriptor listed below, CIRCLE THE NUMBER that most accurately describes your standards for that item. THERE ARE NO RIGHT OR WRONG ANSWERS. There also is no time limit, but you should work as rapidly as possible. Please respond to every item on the list.

At work I describe myself as:

	Never	Almost Never	Seldom	Sometimes	Usually	Almost Always	Always
Dependable	1	2	3	4	5	6	7
Stubborn	1	2	3	4	5	6	7
Following regulations	1	2	3	4	5	6	7
Following directions	1	2	3	4	5	6	7
Independent	1	2	3	4	5	6	7
Ambitious	1	2	3	4	5	6	7
Effective	1	2	3	4	5	6	7
Reliable	1	2	3	4	5	6	7
Tardy	1	2	3	4	5	6	7
Initiating	1	2	3	4	5	6	7
Perceptive	1	2	3	4	5	6	7
Honest	1	2	3	4	5	6	7
Irresponsible	1	2	3	4	5	6	7
Efficient	1	2	3	4	5	6	7
Adaptable	1	2	3	4	5	6	7
Careful	1	2	3	4	5	6	7
Appreciative	1	2	3	4	5	6	7
Accurate	1	2	3	4	5	6	7
Emotionally stable	1	2	3	4	5	6	7
Conscientious	1	2	3	4	5	6	7
Depressed	1	2	3	4	5	6	7
Patient	1	2	3	4	5	6	7
Punctual	1	2	3	4	5	6	7
Devious	1	2	3	4	5	6	7
Selfish	1	2	3	4	5	6	7

Please Turn Over

Negligent	1	2	3	4	5	6	7
Persevering	1	2	3	4	5	6	7
Likeable	1	2	3	4	5	6	7
Helpful	1	2	3	4	5	6	7
Apathetic	1	2	3	4	5	6	7
Pleasant	1	2	3	4	5	6	7
Cooperative	1	2	3	4	5	6	7
Hard working	1	2	3	4	5	6	7
Rude	1	2	3	4	5	6	7
Orderly	1	2	3	4	5	6	7
Enthusiastic	1	2	3	4	5	6	7
Cheerful	1	2	3	4	5	6	7
Persistent	1	2	3	4	5	6	7
Hostile	1	2	3	4	5	6	7
Dedicated	1	2	3	4	5	6	7
Devoted	1	2	3	4	5	6	7
Courteous	1	2	3	4	5	6	7
Considerate	1	2	3	4	5	6	7
Careless	1	2	3	4	5	6	7
Productive	1	2	3	4	5	6	7
Well groomed	1	2	3	4	5	6	7
Friendly	1	2	3	4	5	6	7
Loyal	1	2	3	4	5	6	7
Resourceful	1	2	3	4	5	6	7
Modest	1	2	3	4	5	6	7

4. Please circle one for each question:

Ethnicity: Hispanic Non-Hispanic

Race: Am Indian/Ak Native Native Hawaiian/ Pacific Black Asian White Other

Gender: M F

PFW class section:

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