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PERCEPTIONS OF SECONDARY PHYSICAL EDUCATION
TEACHERS TOWARDS THE FITNESSGRAM

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Kinesiology

by
Paul Anthony Janeway

June 2008

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Approved by:



Hosung So, First Reader



Stephen J. Kinzey, Second Reader

6/2/2008
Date

ABSTRACT

Physical education teachers have been dealing with several types of measurements through their entire careers. Students have been tested in a variety of ways to test their physical limitations and abilities. The purpose of this paper was to examine the perceptions of physical educators towards the Fitnessgram that has five factors to gauge a student's abilities and the norms for each age group. The intention was to find and form a conclusion on how physical educators viewed the Fitnessgram. The process was reviewing several papers and journals on the opinions and thoughts of different educators all of who actually use the Fitnessgram regularly. It was hypothesized that the physical educators would have a positive perception of the Fitnessgram. The opinions of both male and female teachers were reviewed. The majority of physical educators perceived the Fitnessgram as a positive testing tool for physical education and followed curriculum and State standards closer than any other physical test.

DEDICATION

I also have to thank my girlfriend Christina for her hard work and dedication to me and my studies. Without her my dream would have not been impossible. Finally thank you Julie, James, Jacob, and Jocilyn, I love you all. The path I have traveled has been dedicated to their futures and in taking this path I hope that I have improved their lives and brought light to the future for us all.

I would be missing someone important if I didn't mention my mother Genevieve Pawloski, and brother Marcus Janeway for their support from their beginning of this journey eight years ago. Thank you and I want you to know that nothing would have been possible without you.

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CHAPTER ONE

INTRÓDUCTION

Statement of the Problem

In education certain disciplines come to the forefront. The No Child Left Behind Act (NCLB) of 2001 (California Department of Education 2008) has changed education and put a larger emphasis on core classes such as English, math and science. In physical education there is also a new focus that has become the center of attention as well. Physical educators are in the process of finding the best way to test students and get a true indication of their physical fitness. The test that physical educators are using is the State mandated Fitnessgram. For several years physical education teachers have been looking for reliable and valid test that would compare all aspects of physical education and fitness into a standards based fitness test. The main problem has been the changes and different test over the years not being reliable or consistent. The Fitnessgram as it has been enacted has become a more consistent and reliable tool for physical educators.

This test has several methods of testing, such as the push ups, curl ups, sit and reach, flexibility test, trunk lift, and the one mile run. In each case the test is set for age and gender. The test is given to 5th, 7th, and 9th graders one time in each of those years. The focus would be on testing the student's full health and fitness levels.

In reviewing the information concerning the Fitnessgram and perceptions of physical educators several journals such as the Physical Educator, the Journal of Physical Education, Recreation and Dance, Measurement in Physical Education and Exercise Science, the California Department of Education and the Fitnessgram/Activitygram Reference Guide Welk and Meredith (2008) were reviewed to provide a full detailed analysis. Each of these resources will give a wider and clearer picture of the Fitnessgram.

One of the main concerns addressed in the Fitnessgram/Activitygram reference guide by Welk and Meredith (2008) was "does physical activity lead to physical fitness?" (Welk & Meredith 2008 Chap.4) This concern is the reason for so many changes in testing and the methods being used to test students. The perceptions of the physical educators will be weighed and measured to account for reliability and validity of the Fitnessgram in California.

Purpose of the Project

The purpose of this study was to examine the relevance of physical educator's perceptions towards the Fitnessgram. Therefore, the perceptions of all involved with education of students such as physical education teachers, administration, parents, the State of California and the students themselves becomes relevant. The Fitnessgram is a State mandated test it is used and being reviewed by physical educators and their perceptions may either be positive or negative. The perceptions of the physical educators were and continue to be important in deciding on the validity and reliability of the Fitnessgram.

Hypothesis

The hypothesis for this study was that the California physical educators would have a positive perception of the Fitnessgram. By reviewing the perceptions of California physical educators a clear and definite resolution may be achieved. The problem is what is best for the students and what is best when it concerns physical fitness testing.

Scope of the Project

This project was intended to investigate the perceptions of physical educators, administrations, parents, and students towards the Fitnessgram. The information gathered from the California Department of Education, Fitnessgram/Activitygram reference guide, and six scholarly journals give their perceptions and regulations behind the Fitnessgram. The journals selected from the Journal of Physical Education, Recreation and Dance, Journal of Teaching in Physical Education, Measurement in Physical Education and Exercise Science, and the Physical Educator. It was expected that the data would demonstrate and support teachers and all who participate in organizing and copulating the Fitnessgram. This would also set a standard that would be used and a proper testing method would be agreed upon.

Limitations of the Project

Some of the limitations of this study were that it was completely based on the opinions of secondary physical education teachers. The Fitnessgram is covered solely in the opinion of physical educators, administrators, parents, and students and no national opinions were examined or

reputed in this project. There were 16 journals, the Fitnessgram activity guide (3rd ed.), and three separate excerpts from the California Department of Education on fitness zones, questions, and requirements regarding the Fitnessgram. This study excluded the opinions of elementary education teachers who implement the Fitnessgram at the 5th grade level as the main focus of this project was secondary education teachers and their opinion towards the Fitnessgram.

Definition of Terms

- A. Fitnessgram - Originally created by the Cooper Institute in 1995, this is a state mandated physical education fitness test that is measured and recorded for 5th, 7th, and 9th graders. The test covers six aspects testing student's physical abilities. The test is scored by age and gender. The test covers a one mile run (aerobic capacity), curl ups, push ups (upper Body Strength), flexibility on both the right and left side, and a trunk lift (flexibility in the Core).

B. NCLB - No Child Left Behind Act of 2001

C. PACER - Progressive Aerobic Cardiovascular
Endurance run.

D. HELP - Health and health related, Everyone,
Lifetime, Personal (Welk & Meredith, 2008).

CHAPTER TWO

METHODS

The research and study began by reading scholarly journals and articles on perceptions of secondary education teachers on the Fitnessgram. The university library and EBSCO host on the internet was the initial search point for present articles. The next step was downloading the Fitness/Activitygram (2008) off the internet. The final phase was searching through the California Department of Education (CDOE) website and the information that was covered about the Fitnessgram.

After reviewing several segments of information regarding all the aspects of the Fitnessgram as well as perceptions and limitations of the Fitnessgram the literature was documented. Journals such as the Physical Educator, The Journal of Physical Education, Recreation and Dance, Measurement in Physical Education and Exercise Science as well as the California Department of Education and the Fitnessgram/Activitygram Reference Guide 2008, (3rd ed.) Each was a key resource for this project.

CHAPTER THREE

REVIEW OF LITERATURE

This chapter included history of the Fitnessgram, the definition of the Fitnessgram, the six components of the Fitnessgram, related research and the perceptions of the Fitnessgram.

History of the Fitnessgram

According to Plowman, Sterling, Corbin, Meredith, Welk, and Morrow (2008) *Fitnessgram/Activitygram* (3rd ed.) the concept for the Fitnessgram was began in 1977 by Charles L. Sterling in Richardson, Texas. In 1981 Sterling joined the Staff of the Cooper Institute for Aerobics research in Dallas. Sterling in joining the company brought his ideas for fitness and believed as the others at the institute did that this was an opportunity to open to a wider audience.

The program now in its pilot stage was to be implemented in stages in 30 schools in Tulsa, Oklahoma. The original testing was the AAPHERD Youth fitness Test in 1982-1983, and in 1984-1985 the first Fitnessgram was established for trial in these areas. In 1985-1986 the

program went unrestricted and is running through the present. The program has been updated to be an online service for recording scores and tracking student's progress. It has been adapted to improve on the evolution of physical fitness, and physical education philosophy, research, evaluation, education and promotion of physical fitness. (Welk & Meredith, 2008, Chap. 3)

According to Plowman, Sterling, Corbin, Meredith, Welk, and Morrow (2008), technology has advanced and so has the Fitnessgram. The Cooper Institute for Aerobic Research has implemented different versions of the Fitnessgram and the ability to upgrade technology. The Fitnessgram itself has maintained health and healthy fitness zones as being the primary focus, but in addition noting the ability to maintain records and data for future examination.

(Welk & Meredith, 2008, Chap. 3) After several years of improvements and transitions from 1981 to the present, program decisions were made on how to use and implement the Fitnessgram. A five step process had been agreed upon, a fitness zone was created for all age groups and a manageable program was conceived. Physical educators are now following that guideline in their classes as agreed upon by the Cooper Institute for Aerobic Research, and the

State's the Fitnessgram is being implemented in. The Fitnessgram is believed to be by the creators and the State of California to be a valid and reliable source for maintaining physical education standards.

Fitnessgram

According to the California Department of Education (2002) there is a law that states "all school districts are required to administer the Physical fitness test using the Fitnessgram annually to all students in grades 5th, 7th, and 9th" (2002). The California Education Code 60800 is designed for monitoring and testing children's physical fitness. The test is composed of six areas and with a number of test options provided in each area.

Aerobic Capacity

The first area is the aerobic capacity that is broken down into three options. The first being called the PACER (Progressive aerobic cardiovascular endurance run), the second option is the one mile timed run, and the third is a walk test given to students who are 13 years or older only. Each of these test were designed to have the students run or walk timed and to be scored according to age, gender on the health fitness zones Fitnessgram performance sheet.

For each age and gender the times are different. The older the child is the lower the expected time to reach is.

Composition Analysis

The second step in the testing process is body composition analysis. In secondary education and in most California state schools only height and weight is taken. The original plan of the state before cost was measured as a skin fold measurement and would be taken in several parts of both the male and female body. There would also be a body mass index taken, and thirdly and most costly a bioelectric impedance analyzer. As stated earlier any of these three may be used in taking body composition. This area would then allow the tester to know height, weight, body fat, and specifics that relate to each for gender and measurement.

Curl Up

The third phase of testing is the curl up. The curl up is a revised sit up in which a student will be tested while listening to an audio recording. The recording will play a three second cadence in which the student must follow exactly. The recording will count for students while physical educators administer the test and check for proper technique and procedure. The students at the secondary

level are evaluated by age and gender again with a different expectation for each. Scoring will be done upon completion of the test and completing the curl ups properly. The test is designed to test abdominal strength and endurance.

Strength and Flexibility

The fourth phase of testing is the trunk extensor strength and flexibility test. The students lay flat on their stomachs, face down arms at their sides and palms up. They then extend up from their waist and shoulders keeping their chin down, eyes focused on a point at which their chin started and inches are measurement from the ground to the chin. The test is scored on the student's ability to flex the lower back and demonstrate strength to do so.

Upper Body Strength and Endurance

The fifth phase of the Fitnessgram is the upper body strength and endurance phase. The options are push ups, modified pull up, and flexed arm hang. In most cases the push up is used and as with the sit ups a cadence is used off an audio recording in which the student's are required follow the recording at a three second interval. The student's are graded on successful completion of the sit ups. The student's must keep a straight back, bend arms to

a 45 degree angle, and lower their legs and trunk to within a few inches of the mat. The student's continue to do push until they can no longer properly perform a push up.

Flexibility

The final phase of the Fitnessgram is the flexibility test. This portion of the test is the back saver sit and reach or the shoulder stretch. The sit and reach is the normal testing method in which the students remove their shoes, sit with one leg bent and one leg stretched out. The outstretched leg is flatly placed against a sit and reach box. The box is square with a small board hanging off the end approximately six inches to places tips of fingers on the board. To test each side one hand is placed on top of the other while the student does three back extensions forward to stretch as far up the board as he or she can. The score is recorded when the student's fingertips are stretched as far forward as the can reach, as long as their hands stay on top of each other.

Related Research on the Fitnessgram

According to Welk and Meredith (2008) Fitnessgram/Activitygram (3rd ed.) the State adapted this reference guide as a way of understanding and using the Fitnessgram as performance assessment. Within the reference guide there is an acronym used to create a principle to relate to fitness. The acronym is HELP which stands for health and health related fitness, everyone, lifetime, and Personal. The philosophy of the Fitnessgram is exactly this acronym.

In the Fitnessgram/Activity reference guide (3rd ed.) (Welk & Meredith, 2008) they state "there is little data about the activity patterns of young children" (Welk & Meredith, 2008, Chap. 1). The knowledge from the Fitnessgram only covers a few years of a child's life and in the secondary education portion only two tests are performed. Assessments from a physical standpoint are asking "how physically fit are children?" (Welk & Meredith, 2008, Chap. 4). The question is being asked and the test is bringing back answers via the Fitnessgram and participation in physical education classes.

One of the main concerns addressed by Welk and Meredith (2008) in the Fitnessgram/Activitygram reference guide was "does physical activity lead to physical

fitness?" How physically fit are children? Does physical activity lead to physical fitness? Why is it important to assess physical activity within physical education? (Welk & Meredith, 2008, Chap. 4) All the questions and the data reflect student outcomes.

In most cases what gets called in to question in any testing is reliability and validity. The Fitnessgram has been under the review of the State of California, its physical educators, parents, and administrators since its inception 20 years ago. Each portion of the test is reviewed, evaluated, and compared against health and health related fitness.

Though this paper is not about obesity one concern is obesity as it pertains to physical activity. Welk and Meredith (2008) say that "physical activity is essential to the physical and mental health of young people" (Welk & Meredith, 2008, Chap. 8). The comparison is that if the person is physically fit they may be a better student because of their fitness level. Health is related both physically and mentally to the success of a student. Welk and Meredith (2008) also stated that "is it reasonable to expect that good role modeling by parents can inspire their children to be active?" (Welk & Meredith, 2008, Chap. 12)

Though there was no conclusion with this thought they did presume that an active parent may motivate a child with their own activities.

The final chapter of the Fitnessgram/Activitygram by Welk and Meredith (2008) covers Fitnessgram reports, assessments, and interpretation by the State, the physical educators, and administration as it pertains to physical fitness and testing reliability. The "Fitnessgram uses criterion-referenced standards to evaluate fitness performance" (Welk & Meredith, 2008, Chap. 13). The State officials are using the findings of the test to improve the Fitnessgram and set what they believe to be achievable goals and standards.

In using these reports turned in by physical educators after the known testing period in May the administrators of the school, physical educators, and the State have set and met standards. The State takes the data received and uses the data to compare and contrast throughout the State each section of the Fitnessgram. The feedback will give a range from "strength, endurance, and flexibility" (Welk & Meredith, 2008, Chapter 13) all of which the Fitnessgram was comprised to do.

The first two sections of the references are intended to cover a broader aspect of the Fitnessgram and the people who use it. The next reference is by Reed, Brittenham, Phillips, and Carlisle (2007) in an article entitled A Preliminary Examination of the Fitness Levels of Children Who meet the President's Council Physical activity recommendation. The article covers and states that "many physical educators continue to posit that the fitness levels of their students are a fair reflection of the amount of physical activity (PA) they participate in" (Reed, 2007). Through this physical educators and the state began to work out necessary requirements.

The first requirement was "The President's Council on Physical Fitness" (2002) recommends that boys and girl's between the age of six and 17 engage in at least 60 minutes of PA, at least 5 days a week to achieve a health base" (Reed, 2007). This set standard would be a physical education moniker from 2002 to present. Physical educators, administrators of their schools are using the States recommendations and the Fitnessgram to achieve long term goals.

Several aspects over the last six years have been brought to the attention of the State, President's council,

and physical educators. A first thought on physical fitness was the "emphasis on physical activity (PA) rather than the product of physical fitness" (Reed, 2007) indicating getting the work in is better than worrying about outcomes. This in turn creates a perception conflict because according to Pangrazi, (2001) "Many physical educators continue to argue that fitness levels of their students fairly reflects the amount of PA they participate in" (Pangrazi, 2001 p.3). This quote is indicating that students will score well on fitness test if they participate more often.

Pangrazi (2001) also stated "the assumption that children who perform well on fitness test are physically active and healthy individuals is often inaccurate and can create a variety of unanticipated problems" (p.3). Testing students is a regular practice in physical education and Brittenam and Reed (2004) said "there is some data to support that children who are fit are more often active than children who are less fit" (p.3). Fitness compared to activity again. A final thought on this subject was by Brittenam and Reed (2004) in which they said "however an individual can be physically fit, as defined by fitness test scores and not participate regularly in PA" (2004)

Several opinions on several topics all, are looking into fitness testing and what it shows about students and fitness.

Physical fitness educators are often disagreeing with the purpose, intent, and reliability of testing measures. According to Morrow (2005) he mentioned that "most fitness test batteries are valid, reliable" indicating that testing is proof because it is measurable results. The second phase of testing is to encourage students to perform at their peak. According to Hopple and Graham (1995) "it has been argued that one of the benefits of fitness testing is that it motivates students to become more active" but it follows up with saying that the testing sometimes embarrasses the students. There is also fear of failure, or physical discomfort comes into play while other student's are watching. The physical educators are looking for best testing methods at all levels and are looking to using reward programs as incentives.

According to Keating and Silverman (2004) they discussed and investigate the status of teachers and their use of school based fitness test in physical education programs was investigated. The study included 325 teachers in 10 states. Each of the participants was full time

physical education teachers and the study was done through a questionnaire. The questionnaire was specifically designed for physical education teachers and for the purpose of collecting data on the use of fitness test in school based physical education.

The methods of the study were to find out what the participant's perceptions were but also validity and reliability of the test they were giving. In each case these teachers were giving the Fitnessgram as the school based physical education testing. The 325 participants male and female from different schools, backgrounds, and areas would than be asked to respond to the questionnaire and the researchers would than formulate their results.

The results showed that most of the teachers used the Fitnessgram, YMCA Youth Fitness Test Program, or the President's Challenge as a way of testing students in physical education. The physical educators showed a difference in how they might prepare for a fitness test and also they showed a common theme in presenting the students with rewards for success on they test. The conclusion to the study was that fitness testing is important but only a part of physical education programs. There was definite

positive perception of physical fitness and the Fitnessgram was the most favorable assessment.

Perceptions of the Fitnessgram

According to Ferguson, Keating, Bridges, Guan, and Chen (2006) they were trying to determine whether the State mandated test the Fitnessgram was an accurate testing instrument. The test was based on the perceptions of 329 physical educators and their personal beliefs. This was an open study to random physical educators looking for similarities and differences.

In a questionnaire they would be allowed to express their understanding and purpose of the Fitnessgram. Each of the physical educators 190 females and 139 males were given a questionnaire that was designed to elicit their exact perceptions of the Fitnessgram.

The results show a wide range in which many like the Fitnessgram find it to be valid and reliable. In other ideas some find the Fitnessgram to be a work in progress, and others saw it as not as efficient as prior testing methods. In any case the Fitnessgram is the current testing method and teachers are being asked their perceptions and beliefs constantly.

Opinions vary and opinions of all people involved help the process of finding and implementing a physical education test is necessary. According to Hill, and Miller (1997) they searched to find out this exact answer. This study compares peer and teacher assessments of students' physical fitness performance. The goal was to find the advantages, disadvantages, and objectives.

According to Hill and Miller (1997) several sources to conclude their study one source was Linn and Gronlund (1995) and they stated "Unfortunately traditional fitness assessment has often been a long tedious process." Each of the researchers concluded that physical education programs and fitness assessments are necessary to help with development and goal setting. Linn and Gronlund (1995) believe that the test make take several days to conclude and is a wear and tear on both teachers and students. In these testing periods much time and activity time is lost.

Similar studies within this study have roles of students assessing themselves as well as peer assessment as a key ingredient to successful fitness testing. The role of the teacher is more as an advisor. The original point of the creators of the Fitnessgram of the Cooper Institute for

Aerobic Research, (1992) was to include the value of self assessment.

According to Greenwood, Carta and Hall, (1998) Dougherty, Fowler, and Paine (1986), Mcmanus (1986) the conclusions were the same that through peer assessment by trained students have shown positive results. According to Fowler (1986) about peer assessment "they will also gain practice in monitoring the performance of others". Each of the studies designed were on students perceptions and beliefs and how physical education teachers can be involved with the testing but separate from the testing itself.

Howell (1978) stated "the peer monitoring process is less embarrassing and potentially more motivating for students especially when students are of similar ability. Howell continued in saying consistently using students rather than adults, is less stressful and time efficient.

According to Hill and Miller (1997) in their own study after including the perceptions of others researchers took a direct look at the Fitnessgram that was designed in 1992 by the Cooper Institute of Aerobic Research. The Fitnessgram was selected by the State because it was classified as a health related test rather than a physical skill related test.

The study included student assessments of one another, video taping, test and retest practices, teacher supervision of peer assessments, and scoring of individuals who are taking they test by the assessors. The physical education teacher then monitors and runs more testing sessions and practice sessions. Each of the six sections of the Fitnessgram is studied and the students perform each section.

The results of the study show that the students had an increase in participation and in each section of the Fitnessgram. The researchers Found a correlation between scores prior to student's assessments and the scores after student assessment showing an increase in most areas of the Fitnessgram. There were several limitations in this research as regard to the results. Scoring may have been reported more responsibly and accurately with this method.

CHAPTER FOUR

RESULTS

After completing the review of literature, this study focused on perceptions of the Fitnessgram by physical educators as well as students, administrators, and the State of California. The perceptions of several researchers and the creators of the Fitnessgram The Cooper Institute gave a broad view of the Fitnessgram and perceptions by all the people who use, perform, or accept the Fitnessgram as a valid and reliable physical testing assessment.

According to the California Department of Education (2002) the Fitnessgram has been accepted and is the fitness testing assessment that must be used by physical educators yearly. The test is broken down into six sections and targets a healthy lifestyle. Healthy fitness zones have been created in order to maintain and create a target goal for each student based on age and gender. The CDOE believes that the Fitnessgram best serves as a way to stay healthy and is a balanced program for physical educators and their students.

According to Fitnessgram/Activity Guide Welk and Meredith (2008) the healthy fitness zones are criterion

referenced health standards that are based on good health and fitness. The acronym HELP was designed for reference purposes. Health and health related, everyone, lifetime, and Personal. The Fitnessgram/Activity guide had several sources and topics that covered concerns, standards, expectations, roles of the parent's, students, administrators, and the physical educators.

The creator of the Fitnessgram The Cooper Institute wanted the Fitnessgram to be a scientific response and a comprehensive assessment protocol. The Cooper Institute has used the reference guide to publish its findings and to educate the State, the administrators of the schools, the physical educators and have been working to create a test that is criterion and standards based.

According to Reed, Brittenham, Phillips, and Carlisle (2007) physical fitness testing is a fair assessment of a student's actual activity level. The physical education teachers are looking to increase physical activity and increase results in physical fitness training or assessments. The physical educators and the State might then be able to work out necessary requirements for the students.

According to the President's council on physical fitness (2002), recommendations are that every boy and girl between 6 and 17 engage in at least 60 minutes of physical activity (PA) five days a week. The Federal and State government have instituted the recommendations into physical education classes, and adopt testing as a partial result of student physical fitness. The stated goal is long term fitness for all students and using the Fitnessgram is a reliable assessment.

According to Pangrazzi (2001) testing may not be an accurate way of assuming the health and fitness of students who take the physical fitness test and that this could create a variety of problems. Pangrazzi says that testing has become regular practice in physical education and may not an accurate assessment.

According to Brittenam, Reed, and Plowman (2004) there were data to prove that students who perform well on physical fitness test often more active and the testing represents that. They also state that fitness is a result of activity and students who are less fit because of less activity. The data supports of each of his or her claims.

According to Morrow (2005) most fitness test are valid and reliable. The claim is that physical fitness testing

gives an accurate and measurable result. Though there is some disagreement among physical educators on the purpose, intent, and reliability of certain test the consensus according to Morrow is that fitness testing is valid.

According to Hopple and Graham (1995) one of the benefits of fitness testing is that it is a motivator for students to perform at a higher level. Hopple and Graham also say that the testing phase is sometimes embarrassing and students fear of failure or embarrassment also plays a role in physical fitness scores. Physical educators are than looking to find the best and a proven testing procedure which is a benefit to all students.

According to Keating and Silverman (2004) in their study they investigated and discussed the status of teachers and their use of school based physical fitness test in physical education. Their results came from interviews, and surveys in which they polled 325 physical educators and compared each response for results. Keating and Silverman were looking to find validity and reliability of the physical fitness test, but also had an interest in the perceptions of the physical educators. Most physical educators liked the testing and found the physical fitness test the Fitnessgram valid and reliable.

Ferguson, Keating, Bridges, Guan, and Chen (2006) examined whether or not the State mandated test was an accurate testing instrument. The researchers polled 329 physical educators asking for their perceptions on the assessments and formulated results according to those opinions. The research was random and was looking for a broad spectrum and testing for different responses from different ages, gender, and demographics. Most responses were that testing was valid and reliable and felt the Fitnessgram was performing to expectation.

Linn and Gronlund (1995) they stated that traditional fitness assessments are long and tedious process. The process leaves a lot of non-activity time for those who are not testing. The result being physical education would not be as active as needed during testing periods. The testing may be valid but may also be too time consuming to keep the Presidents Councils goal on physical fitness per week.

Greenwood, Carta, and Hall (1988) as well as Dougherty, Fowler, and Paine (1986) and Mcmanus (1986) they state that through peer assessment by trained students that fitness scores have positive results. Separately Fowler (1986) that the students doing the assessing of other students also gets practice monitoring and testing.

Howell (1978) the peer monitoring system is less embarrassing and a potential motivator for students, especially with students who are of similar abilities. Howell also says that it creates a less stressful and time efficient testing method. Howell looks to students as motivators and peer tutors.

Hill and Miller (1997) with student assessments video tape, test, retest, teacher supervision, and individual scoring that the students could improve their testing scores. The physical education teacher in this study would monitor and run more testing sites and cut down on lost physical education and create more practice sessions and testing session. The result was more participation and better testing scores.

CHAPTER FIVE

CONCLUSIONS

The focus of this study was to review the perceptions of physical education teachers towards the Fitnessgram. There have been several testing procedures in the past, but the Cooper Institute put time, money, and research into devising the Fitnessgram. The State of California has implemented the Fitnessgram as the physical fitness testing assessment.

As a physical educator I have given the test several times and though I have not tested with any other assessments, I have found that the Fitnessgram is a valid and reliable assessment tool. Other physical education teachers throughout the studies reviewed have also agreed that the test is valid as well as administrators, parents, and students. They may not completely agree with testing methods and procedure of the test itself, but the Fitnessgram does test all major functions of fitness which is a challenge for all students.

The ultimate goal for any physical education teacher, State official, the Cooper Institute, and Presidents Fitness Council is to create a valid and reliable testing

assessment that students will give maximum effort towards. Fitness testing is hardly a favorite, physical educator's and students know there is down time and the testing does take up a few days to complete. Each phase depending on class size could take an entire class period.

Many of the journals, articles, California Department of Education, and the Cooper Institute with the Fitnessgram/Activity reference guide (3rd ed.) have weighed in on physical fitness testing. Physical educators as long as there is testing that requires physical fitness will get some sort of acceptance and disappointment. In the end the solution may not be perfect for everyone but physical fitness testing in my opinion is a valid and reliable concern. Fitness is a lifetime activity that will be with and part of an individual's entire life.

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