

COMPUTER VIDEO GAMES VIS -A-VIS PERFORMANCE IN
PHYSICAL EDUCATION OF HIGH SCHOOL STUDENTS IN
SELECTED PRIVATE SCHOOLS IN ANGELES CITY

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A Thesis
Presented to
The Faculty of the Graduate School
Angeles University Foundation
Angeles City

In partial fulfillment
of the requirements for the Degree
Master of Arts in Teaching Physical Education

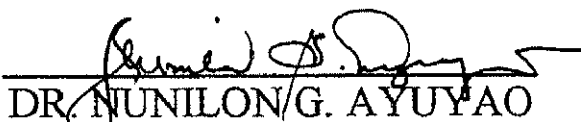
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This thesis entitled "COMPUTER VIDEO GAME VIS-À-VIS PERFORMANCE IN PHYSICAL EDUCATION OF HIGH SCHOOL STUDENTS IN SELECTED PRIVATE SCHOOLS IN ANGLES CITY", prepared and submitted by JOEL G. TUBERA in partial fulfillment of the requirements for the degree of Master of Arts in Teaching Physical Education, has been examined and found in order and is hereby recommended for ORAL EXAMINATION.

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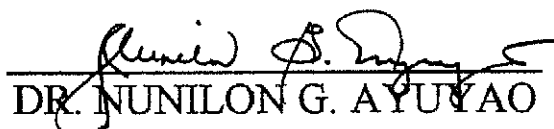

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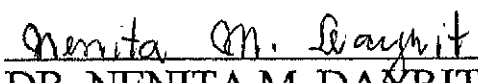

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ACKNOWLEDGEMENT

The researcher extends his sincerest and deepest gratitude to the following:

The P.E. teachers and students of the selected secondary high schools of Angeles City for their honest cooperation and for providing all the needed data for the study;

The researcher's mentor and adviser, Prof. Evelyn B. Cabili, for her encouragement and expertise in the field of Physical Education;

The researcher's friends, most specially to Bogs and Dinah for their assurance and unselfish support;

To Andrea, Norman and Marion for sharing always their continued assistance; and

The ALMIGHTY GOD, who continuously showers His graces and blessings.

J.G.T.

DEDICATION

To

YOU

and to the

ONE

Who gave you to

ME

J.G.T

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THESIS ABSTRACT**1. TITLE:**

- 1.1 Total Number of Pages : 89
- 1.2 Total Number of Text Pages : 110

2. RESEARCHER: Joel G. Tubera**3. PUBLICATION:**

- 3.1 Date:
- 3.2 Place: Angeles City
- 3.3 Region: III

4. INSTITUTION:

- 4.1 Name: Angeles University Foundation
- 4.2 Type: Private

5. SUBJECT AREA:

- 5.1 Reference Number:
- 5.2 Description: Physical Education
- 5.3 Degree Conferred: M.A.T. P.E.

6. SPECIFIC LOCATION WHERE COPIES CAN BE FOUND:

Library

Location

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7. INTRODUCTION

In our increasingly mechanized and automated society where physical labor has been decreased due to labor saving devices, it is necessary that individuals must engage in a more planned program of physical activities to promote fitness. Walking, running and jumping are natural basic movements that provide good sources of physical fitness. For children, street games and cultural games help enhance their physical growth and development while

highly organized physical activities such as gymnastics, dance, athletics, and sports that provide total fitness are integrated in their school curriculum under Physical Education subjects.

Physical Education plays a big role in the total development of a man. It is now generally regarded as a fundamental educational experience in which all pupils should regularly engage in throughout elementary, secondary and higher education as an integral phase of the total school curriculum (Freeman, 1997). As defined by Wrest (1999) Physical Education is a phase of the total process of education which is concerned with vigorous muscular activities and related responses, and with the modification or behavior changes in the individual which result from these responses.

But now that man becomes a controller of mechanical power rather than mere source of power as in year past, children's games become technological too. Mechanical toys, which with one push of a button can walk, dance and create sounds, replaced many of our indigenous games. Japan, a technologically advanced country, developed and introduced toys such as Game Boy, Nintendo Family Computer and the most recent is the Play Station, which has invaded and changed the interest of the children, these are generally known as Computer Games, they are computerized games that are played on a television or display screen. Normally, it is the computer and player that control the movement of the images on the screen. Also, computer video games programming integrate sounds, music and colorful graphics (including animation and movies) all at the same time, hence making them too attractive to the young. Greenfield (1984) suggested that "Visual action is an important factor in attracting the attention of young children to the screen" and that potential for active control (controlling what happens on screen) is the fundamental reason why children prefer playing interactive video games. Allan Robles (1997), in his article entitled Multimedia Magi stated that, "Four years ago the entire multimedia field probably consisted of less than 50 programs.

Now, there are thousands and the number is growing because most software companies are issuing nothing but multimedia products. "

Video games have raised interest and concern since they first appeared in the late 1970's. Over time, the playing of these games has been widespread (with the reduced costs and subsequent worldwide proliferation of technology) globally. Nowadays, they have become fixed and important element of youth culture just like music and movies. In United Kingdom alone, over 2 million Sony Play Stations (currently the world's most popular video game console) had been sold and an estimated worldwide figure of 40 million sold worldwide (Brookes, 1998).

In the Philippines, computer games became an instant hit. Before, children used to play "Patintero", "Tumbang preso", "Taguan" and many more. But with the popularity of video games, playing stations such as arcades, amusement centers and Internet café sprouted like mushrooms. Now, children who used to play cultural games in the streets are gone and fill the said places instead. What is ironic about it is that parents who used to prohibit their children from playing street games are now even eager to accompany their children to play in these places and have fun with them.

In Angeles City alone there are about 27 places that offer computer video games and according to an initial survey, 80 percent of the players who regularly play are students of different ages. It can also be observed that pirated computer disks are readily available on sidewalk markets at very affordable prices for those who have personal computers at home.

Presently, computer video games take the place of many outdoor and physical activities or physical education in general. Mrs.Feny de Los Angeles Bautista (1998), in her article entitled T.V. and Video stated that, video game players spend a minimum of 3 playing hours on regular days. Double or triple that on weekends. That amounts to 9 hours a week and about 261 hours a year. This means that by the time students graduated from high school, about

16 percent of their high school life were spent sitting while playing video games.

These practices can actually lead to inactivity, which could cause deterioration of many physiological systems of the body, some of which are poor cardiovascular endurance, low emotional stability and weak health. Children who spend more time sitting without exerting physical strength are likely to become vulnerable to obesity, back pain, tension syndrome, ulcers and even heart disease. Psychologically, the benefits of physical activity have been means to help some people to cope with the many stressors of modern society, improve self image, and feeling of wellness. On the other hand, inactivity also has a direct impact on the psychological stability of a person.

Luchi Cruz Valdez, a correspondent of G.M.A. 7's "I-witness" reported that on April 20, 1999, Eric Harris and Dylan Klebold launched an assault on Columbine High School in Littleton Colorado, murdering 13 and wounding 23 before turning the guns on themselves. One possible contributing factor is violent video games. She further discussed that Harris and Klebold enjoyed playing the bloody, "Shoot-em-Up" video game "Doom", a game licensed by the U.S. military to train soldiers to effectively kill. The incident is one of the primary reasons why controversy continues today over the addictive qualities and violent nature content of the games. U.S. Senator Joseph Lieberman has called video games "Digital Poison" and blames them for playing a significant part of America's "Culture of Violence". On the other hand, some research findings reported by Feny de Los Angeles Bautista in her article T.V. and Video shows some positive effects of video games, some of which are the development of Eye-Hand coordination, problem solving skills, pattern recognition, language skills and arithmetic. Because of its interactive characteristics, video games generally help player to improve their I.Q.

These documented incidents and findings prove that playing Computer Video Games has a direct impact on the individuals who are playing it. It is on

this context that the researcher wishes to find evidence from the students who are exposed and involved in computer video games and if such involvement and exposure can affect their performance in Physical Education.

8. STATEMENT OF THE PROBLEM

This research is designed to discover the relationship of computer video games to students' performance in Physical Education.

Specifically, the study sought to answer the following questions:

1. How may the respondents be described in terms of the following:
 - a. Sex
 - b. Type of involvement
 - c. Length of exposure
 - d. Place where video games are played
 - e. Reason for watching and playing computer video games?
2. How may the performance in Physical Education of computer video game players and spectators be assessed?
3. Is there a significant relationship between performance in Physical Education and the following:
 - a. Sex
 - b. Type of involvement
 - c. Length of exposure?
4. What are the implications of the findings of the study on the curriculum and the teaching of Physical Education?

9. RESEARCH DESIGN

The researcher made use of the descriptive method of research. The purpose of descriptive method is to describe systematically a situation on an area of interest factually and accurately (Aquino, 1992). Martinez (1988) explains that the descriptive approach is used mainly to describe

contemporary events and that the research questions and problems are based on appreciation of the present state of affairs, albeit, they are rooted in the past and may affect the future. Specifically, the researcher employed the correlation descriptive method in establishing the relationship of sex, involvement and exposure to Computer Video Games on the performance of students in Physical Education.

For the purposes of this study, the researcher made use of the following instruments that are hereby described briefly for better appreciation of the investigation undertaken:

A. Survey

-Questionnaire

The researcher constructed his questionnaires that underwent content validation and pre-testing before the final use; and distribution using the second year students of the Special Science Class as respondents. The finalized self-constructed questionnaire provided reliable information, which helped the researcher determine and understand the extent of the involvement and exposure of students in playing computer video games. The respondents' sex, reason for playing and the place where they play computer video games were other areas of concern in the questionnaire. A questionnaire designed to get the personal data and credentials of the teachers was also utilized.

-Interview

Authorities and teachers of Physical Education will be interviewed using a common guide made by the researcher to understand the implication of the study on the curriculum and teaching of Physical Education in general.

B. Documentary Analysis

To assess the performance of the respondents in their Physical Education class, the researcher got a copy of the grades / ratings of the students from their respective teachers. The researcher confirmed that all

teachers used the same D.E.C.S. criteria in assessing student's performance. All schools included in the study used the cumulative grading system.

The grading system was composed of the following criteria:

- a. Periodical Test
- b. Quizzes
- c. Attendance
- d. Recitation
- e. Practicum/Application activities

C. Ocular Visits

The researcher visited the most popular arcades, amusement centers and Internet café in Angeles City not only to identify the respondents but also to be familiar with the nature of computer video games. The researcher also visited all private schools in the city to understand and compare the curriculum and grading system of each school and relate the outcome to the needs of the study.

10. SUMMARY OF FINDINGS

In a nutshell, the following are the major findings of this study:

1. Respondents' Description

Majority of the respondents were male, represented by 68 percent, while only 32 percent were females. As to their type of involvement, the greatest number of respondents which comprised 42.67 percent were involved to C.V.G through watching and playing, while 39.33 percent were already satisfied by merely watching C.V.G. On the other hand, not even half of this percentage or only 10 percent of the respondents represented those who involved themselves through active playing while barely 8 percent of the total respondents did not have any involvement to C.V.G at all. Generally speaking, majority of the respondents were involved in computer video games.

The exposure of the respondents on the other hand was categorized into the no. of hours and no. of times they exposed themselves to C.V.G. in a week. As to the spectators, 83.54 percent of the group spent 1-3 hours a week watching C.V.G, while only 12.66 percent did it from 4 – 6 hrs. and barely 3.80 percent did it 7 hours – up. In terms of the number of times spectator watched C.V.G, 48.10 percent did it three times or more every week, 39.24 percent on the other hand did it at least twice and only 12.66 percent do it once a week. Active players also shared a great deal of exposing themselves to C.V.G. as well. 46.34 percent played from 1-3 hours a week, 38.21 percent enjoyed it 4-6 hours and about half of the later or 15.45 percent spent 7 hours or more. As to the number of times they played every week, a great majority which comprised 71.54 percent play three times or more, 22.76 percent played twice at least and only 5.70 percent did it once a week. The findings disclosed that computer video game supporters proved to spend more time to it as compared to the number of hours they attended to their P.E classes.

Of the three places where the respondents could play C.V.G., about one third or 36.96 percent of the respondents chose home, 26.81 percent were comfortable in visiting all kinds of playing stations and 36.3 percent enjoyed the convenience of both worlds.

From among the four choices of reasons that were given by the respondents, boredom topped the list by getting 75.36 percent of the total respondents, excitement followed in second by having 27.68 percent. Peer Pressure followed closely having a percentage of 34.05 percent and only 10.87 percent chose curiosity as a reason. On the other hand nobody listed any other reason for playing C.V.G except for those that were given.

2. Assessment of the Performance of C.V.G. Players and Spectators

School documents provided the numerical rating of the respondents that measured their performance in Physical Education. Using D.E.C.S. criteria, the respondents' performance was described Moderately Satisfactory, Satisfactory, Very Satisfactory or Outstanding.

Data revealed that of the 138 total expose respondents to C.V.G., only 2 or 1.45 percent were rated Moderately Satisfactory as compared to the 33 students or 23.91 percent who got a rating of Satisfactory. 81 or 58.70 percent performed Very Satisfactory and 22 or 15.94 percent were given a rating of Outstanding.

Based on the findings, students who were exposed to C.V.G. still managed to maintain a good performance in P.E. although their grades were lower compared to the grades of students who were not involved in C.V.G.

3. Relationship of P.E Rating to Sex, Type of Involvement and Length of Exposure

A computed Chi²-square statistics of 27.38 and chi-square significance of .000 showed that there was a significant relationship between respondents' sex and their performance in Physical Education.

For Involvement, the computed chi-square statistics of .057 and chi-square significance of .009 yielded that there was a significant relationship between students Type of Involvement to C.V.G. and their performance in Physical Education.

The cross tabulation of the respondents ratings in P.E and the number of hours they played C.V.G per week resulted to a computed chi-square statistics of .066 and chi-square significance of .007 which proved that there was a significant relationship among the two variables.

A computed chi-square statistics of .043 and chi-square significance of .148 pointed to the fact that there was no significant relationship between students performance in P.E and the number of hours they watched C.V.G.

There was a significant relationship between respondents number of times they played C.V.G and their performance in P.E, a finding based on a computed chi-square statistics of .058 and a chi-square significance of .016.

As dictated by a chi-square statistics of .033 and chi-square significance of .273, it could be concluded that there was no significant relationship among respondents' P.E performance and the number of times that they watched C.V.G a week.

4. Implications of the Findings of the Study on the Curriculum and Teaching of Physical Education

Physical Education Teachers and Coordinators proved that the curriculum content was well designed to promote total fitness among students. However, it could not serve its purpose well because the students did not appreciate all the components of the subject, specially the activities that did not serve the interest of the majority such as Gymnastics and "Laro ng Lahi". As presented in the findings, the steady trend of students' involvement and exposure to Computer Video Games was related to the fact that a good curriculum should be supplemented with good teachers. Teachers need to continue reinforcing their teaching strategies and methodologies for the students to easily appreciate the importance of even the smallest movement that other P.E. component offered. More so, the challenges and visual graphics advantage of computer games should encourage teachers to use visual aids and humor more often. Class schedules, availability of equipment and school practices are other factors that need to be addressed for a better application of the curriculum and teaching strategies, and in general, a better Physical Education.

11. CONCLUSIONS

Based on the foregoing findings, the following conclusions are drawn:

1. The big percentage difference of the involved and exposed respondents to computer video games and the total hours and times they engaged to it as compared to those who did not, showed that computer video games is now a fixed part of the culture and identity of today's youth. Further analysis showed that computer video game is now the number one favorite pastime of most of the respondents. The place where they do it is not much of an importance as shown by the findings although it can also make a difference in terms of their performance in P.E.
2. Performance of computer video game players which was measured by the ratings given to them at the end of the school year by their P.E. teachers were still on the normal level, although findings showed that the number of hours and time consumed to play these games affected their rating as proven by the higher ratings obtained by those who were not involved and exposed to computer video games.
3. There was a significant relationship between Physical Education performance and respondents' sex, type of involvement and length of exposure as to the number of hours and times the respondents played computer video games in a week as proven by the computed chi-square significance.
4. In all the computed chi-squares on the relationship of Physical Education performance to respondents' length of exposure as to the number of hours they watch computer video games, it was revealed that there was no significant relationship between the two variables.
5. Based on the findings of the study, content of the second year P.E curriculum was yet to prove its worth to the students. The activities included in the curriculum did not attract the interest and attention of the students. More so, teaching strategies and methodologies of the teachers

did not to encouraged the students to actively participate in all the activities and appreciated the importance of the subject.

12. RECOMMENDATIONS

Based on the findings of the study and conclusion, the following recommendations are hereby presented:

1. Considering the quality of computer video games viewed by children at present, there is a need for school administrators, teachers and parents to orient the students of the negative effects of computer video games on their P.E performance and Physical fitness.
2. There is a need to investigate and find out the quality of computer video games played or watched by students. Examining the present content of computer video games discs is timely due to very high percentage of students found to be either playing or watching video computer games as proven in the study.
3. The continued technical and technological advancement of computer video games posts a big challenge and threat to P.E teachers. The researcher proposes that steps be taken to integrate computer related activities to the teaching of Physical Education. Computer game manufactures and producers must introduce games that reinforce and enrich lessons taught in Physical Education. They should re-align the CVG programs to the teaching curriculum subjects
4. Local and school officials must work together to provide accessible options for individual and group entertainment and recreation that promotes fitness aside from malls.
5. Strict supervision on the proper implementation of the existing local ordinance should be given priority not only to limit the exposure of the students but also due to the violence, pornographic and aggressive content

of the games that may cause other damages as proven by some related studies presented in chapter II.

6. Teachers should update themselves with the latest knowledge and skills that they need in teaching the subject by regularly attending seminars and workshops. Teachers should learn how to be innovative and creative in their teaching techniques not only to attract the attention and interest of the students but also for the students to appreciate all the activities in P.E.
7. Further research that tackles other aspects such as the emotional, physical and social effects of computer video games on students should be conducted to fully understand the total role of C.V.G. on students' life. The results of this study can be used as basis or reference for future research.