POLITEKNIK MALAYSIA

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VIDEO GAMES AFFECTED STUDENT'S ACADEMIC PERFORMANCE

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DECLARATION OF ORIGINALITY

TITLE: VIDEO GAMES AFFECTED STUDENT ACADEMIC'S   PERFORMANCE

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2) We verify that this project and its intellectual properties are our original work without plagiarism from any other sources.

3) We agree to release the project's intellectual properties to the above said polytechnic in order to fulfill the requirement of being awarded **Diploma in International Business.**

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As a project supervisor

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ABSTRACT

The objective of this study is to explore the relationship between personal factor and respondent attitudes on playing video games towards student academic performance among Politeknik Shah Alam student. The personal factor can be defined as the particular background of individual's life and living. An attitude is a group of feelings, thoughts, and actions one has toward a certain thing, person, thing, or event. Experiences or upbringing frequently influence attitudes. They can have a significant impact on how people behave and behave differently depending on the situation. Academic performance refers to the amount to which a student, instructor, or institution has met their short or long-term educational objectives, and it is measured either by continuous assessment or cumulative grade point average (CGPA). Using questionnaire for quantitative research, responses selected respondents were obtained. This study discovered that personal factor and respondent attitude influence PSA students academic performance. This study will benefit organizations, particularly cooperatives, in gaining understanding of how video game can affect student academic performance and how they can recover. Future studies should concentrate more on student personal factor and respondents attitude.

Keyword: Personal factor, attitude and academic performance

CHAPTER 1

1.1 INTRODUCTION

The motivations behind people's deliberate decisions to continue utilizing information technology (IT) have received much study in the MIS literature (Bhattacherjee et al, 2008; Kim, 2009). The students' participation and academic success are tied to the game. Through a pre-survey, junior high school pupils who were the study's respondents were identified by the researchers. asked to respond to a question about whether or not they play video games. Playable video games can be found both online and off. use an Android or smartphone with an offline or with an internet connection. As a result, the Researchers were urged to investigate how a video works. The students' participation and academic success are tied to the game. (Conie Santolices, 16.04.2021). The foundational tenets of such studies were that humans make rational decisions in the majority of cases and that information systems are advantageous in terms of hedonic or utilitarian advantages. However, information systems are not always advantageous, and consumers may acquire erroneous assumptions (Turel et al, 2011b). The increasing number of students who are hooked on playing online mobile games (OMG) is alarming. When utilized incorrectly, IT may have a harmful effect on people as well as on society (Block, 2008). Specifically, the study investigated the correlation between student's number of hours spent on playing OMG (at school and home), commonly played OMG (at school and home), reasons for playing OMG and attitudes on playing OMG with academic performance utilizing Eta and Pearson r correlation analyses (Jessie Richie Naval de los Santos I and others, , February 2020). Digital technology has made a tremendous impact on the life of younger generation, especially the student community. Their socialization process is realized through the means of mobile and Internet engagement. Spending time on technical gadgets is a vital part of their daily life. This attraction towards the digital world limits their academic concentration. (G. Arockiyasamy and others, 21 June 2016). Online game addiction is one of the prevalent and concerning technology-related addictions (Huh & Bowman, 2008; Charlton & Danforth, 2010).

1.2 BACKGROUND STUDY

Millions of people worldwide suffer from a legitimate mental health disorder called video game addiction (Cam Adair, 2022). Gaming disorder is defined by the World Health Organization as "a pattern of persistent or recurrent gaming behavior, which may be online or offline, manifested by impaired control over gaming, increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences" (ICD-11) (World Health Organization, 2021). The excitement of winning becomes one of the main reasons for playing, making video game addiction a process addiction related to compulsive gambling (Meredith Watkins, M.A., M.F.T., 2022).

A major etiological element for video game addiction may be how players utilize video games to deal with stress and worry (Courtney N. et., al 2019). The idea of video game addiction has gained support with requests to put "gaming disease" in both the Diagnostic and Statistical Manual (DSM) and International Compendium of Diseases (ICD). Many elements of this idea, nevertheless, are still debatable. There is still a lot of confusion surrounding the proper diagnostic symptoms and criteria. Uncertainty exists on whether symptoms including problematic video game activity should be reified as a new diagnosis or whether they are the manifestation of underlying mental problems (Nielsen et., al 2017). Numerous epidemiological studies have recently produced empirical information on the frequency of video game addiction (GA) in various age groups. Few researches have looked into the causes of GA, which may help to explain why, despite video game playing being a common activity, only a small number of gamers get hooked. Additionally, the longitudinal studies that are currently available focus primarily on psychological characteristic factors and ignore the potential explanatory significance of predictors in socialization related to media availability, media use, and family and regular school life (Rehbein et., al 2013). The findings of a two-wave longitudinal research involving a sample of children in Grades 4 through 9 (N = 406) are

provided in this publication. The statistics reveal that a number of particular risk factors were already manifested by the age of 10 in 15-year-old video game addicts. Students from single-parent households appear to be especially vulnerable, as do those with poor academic performance and lower social integration in the classroom. Additionally, the data suggest that problematic video game use during childhood raises the risk of GA during adolescence. Students that are male are particularly susceptible to developing GA. The findings of this study make a significant contribution to our understanding of the risk factors for GA in teenagers and help set the stage for practical preventative strategies (PsycINFO Database Record (c) 2019 APA, all rights reserved). This study will determine the relationship of video games towards student's academic performance.

1.3 STATEMENT OF PROBLEM

There is not enough research right now to confirm definitively that overusing video games is an addiction according to the APA's definition (American Psychiatric Association, 2017). (World Health Organization, 2022) recognizes it as "Gaming Disorder" in their International Classification of Diseases (ICD-11) as "a pattern of persistent or recurrent gaming behavior, which may be online or offline, manifested by impaired control over gaming, increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities and continuation or escalation of gaming despite the occurrence of negative consequences." It is unclear if symptoms that involve problematic video gaming behavior should be reified as a new disorder, or are the expression of underlying mental conditions (Bean et., al 2017). Over the past few years, the popularity of video games as a pleasure and leisure activity has steadily increased as this phenomenon has ingrained itself into the lives of many people (Pontes, 2018). A nationwide research conducted in the United States of America

(USA) found that 67% of all-American households had a gaming device and that roughly 65% of all households have someone who regularly plays video games (Entertainment Software Association, 2017).

1.4 PURPOSE STATEMENT

Our significance of study shows that the relationship between personal factors and respondence attitude on playing video games towards student's academic performance. The present study intends to understand about the factors that influence respondence to be addicted to video games.

1.5 RESEARCH OBJECTIVE

Based on the problem statement mentioned before, the following are constructed:

1. To identify the relationship of personal factors towards student academic performance.
2. To identify the relationship of respondence attitude on playing video games towards student academic performance.

1.6 RESEARCH QUESTION

Based on the objective of the study that have been stated, therefore our research questions are as follows:

1. What is the relationship between personal factors towards student academic performance?
2. What is the relationship between respondent's attitude on playing video games towards student academic performance?

1.7 ASSUMPTIONS

This research is to acknowledging the correlation between playing video games towards students' academic performance. The prevalent consensus is that students spend the majority of their time engaged in activities other than those that are academically focused. The majority of people believe that other hobbies like watching movies, using social media, playing games, etc., distract them from their academic work. Gain awareness among the school's or college's governing body, teachers, and other staff members who engage with students.

1.8 LIMITATION

1. Respondents hesitate to spare time to complete questionnaires that might not concern them.
2. Respondents are not interested in giving cooperation because they have no interest in the research.

1.9 DEFINITION OF TERM

i. Video games - Video game defined as the computational model software that required the players to respond to events occurring in a simulated world (Ammar Ihsan Nasution et,. al 2015)

ii. Addiction – An inability to stop doing or using something (Cambridge Dictionary, 2022).

iii. CGPA - CGPA (Cumulative Grade Point Average) A CGPA is your academic performance from 0.00–4.00, calculated as an average of your GPA from all completed terms/semesters (NatTinkling, 2018).

iv. Attitude - The way a person views something or tends to behave towards it, often in an evaluative way (Collinsdictionary, 2022).

v. Personal factors - The particular background of an individual's life and living, including features of the individual that are not part of a health condition or health

states, and which can impact functioning positively or negatively (The Australian Journal of Rehabili, 2012).

1.10 SWOT Analysis

A SWOT analysis is a technique for assessing these four areas of your business. SWOT is an acronym that stands for Strengths, Weaknesses, Opportunities, and Threats. SWOT analysis is a simple tool that can help you analyse an organization's strengths and weaknesses and design a successful future strategy. SWOT analysis can also be used to identify company areas that are holding you down or that your competitors may take advantage of if you do not defend yourself. In this article, video, and infographic, we look at how to do a SWOT analysis and how to put your findings into action. In addition, we've included a worked example and a template to help you get started on your own SWOT analysis.

Strength	Weakness
• Other students can improve their student academic performance by using this research.	• There is few research about the personal factors and respondents attitudes playing video games towards student academic performance in Malaysia.
Opportunity	Threats
• Get to know is it video games really affect student academic perfomance	• Technological changes can make people lose interest in learning or adapting on this advanced technology for example playing video games.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review identifies, evaluates, and synthesizes the relevant literature within a particular field of research. Literature review illuminates how knowledge has evolved within the field, highlighting what has already been done, what is generally accepted, what is emerging and what is the current state of thinking on the topic. This chapter will define and clarify about video games affected student academic performance.

2.2 STUDENT ACADEMIC PERFORMANCE

Academic performance is a representation of performance results that show the extent to which the student has attained particular learning objectives (Ali et al., 2013) and showing excellence in extracurricular activities (Steinmayr et al., 2014).

2.2.1 CGPA

Cumulative grade point average (CGPA) is a system for calculation of GPA scores and is the way to determine a student's academic performance in a university setting.

Grade point average (GPA) and cumulative grade point average (CGPA) are two terms that are frequently used in the education sector, and they signify the many methods of giving undergraduates' scores in accord with their academic achievements among their different topics (Quora, 2019). The majority of employers use CGPA to sort out job candidates, preferring those who have a higher CGPA (Yogendra & Andrew, 2017). The accumulated grade point average (CGPA) determines how well students performed academically through

all examination grades for all semesters during their time in college or university. However, several studies that were conducted used Grade Point Average (GPA) as a measure of academic achievement (Galiher, 2006). According to (Anand, 2007) Correlation between Video Game Usage and Academic Performance Markers study from New York, playing video games may have a negative impact on a person's Grade-Point Average (GPA) and possibly their SAT scores. According to (Skoric et., al 2009) video game addiction tendencies are consistently negatively related to academic achievement.

2.3 Personal factors

Personal factors could have an influence on how a person develops their identity salience and ultimately contribute to people's decisions regarding work and non-work areas (Wayne et al., 2006). According to (Ali et., al 2013), age, the social background of parents or guardians, and the duration of time spent studying each day all have a major influence on academic success. In addition, daily study time, parents' economic status, and age all significantly affect academic success, according to (Ali et., al 2013). The academic achievement of males and females in Chemistry differences statistically significantly, according to (Omwirhiren & Anderson, 2016). (MeenuDev, 2016) also found that girls achieve better academic results than boys. Age has a variable impact on academic performance. (Ali et., al 2013) discovered, for example, that age strongly influences academic achievement.

2.4 Attitude

This is possible to define attitude as the mental and emotional processes that encourage someone to engage in any behaviour toward a thing or a subject (Perloff, 2016). (Paramitha, 2017), the survey found that students' attitudes and interest in earning and understanding are the main factors of mastering any subject. A research by (Effandi Zakaria et., al 2010)

discovered that the process of cooperative learning compared to the traditional method, will improve students' performance and increase their attitudes toward subject. The CGPA of students was also influenced by their attitude about the course they took. The attitudes toward a course, according to (Yahaya Buntat & Noor Sharliana Mat Nasir, 2011), can be separated into six dimensions: perceptions of the lecturers, anxiety about the course, the importance of the subject for society, self-concept, learning excitement, and motivation.

2.5 Theory Model

Technology Acceptance Model.

Technology Acceptance Model (TAM; Davis, 1989) has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology: perceived ease of use and perceived usefulness. An older adult who perceives digital games as too difficult to play or a waste of time will be unlikely to want to adopt this technology, while an older adult who perceives digital games as providing needed mental stimulation and as easy to learn will be more likely to want to learn how to use digital games. While TAM has been criticized on a number of grounds, it serves as a useful general framework and is consistent with a number of investigations into the factors that influence older adults' intention to use new technology (Braun, 2013)
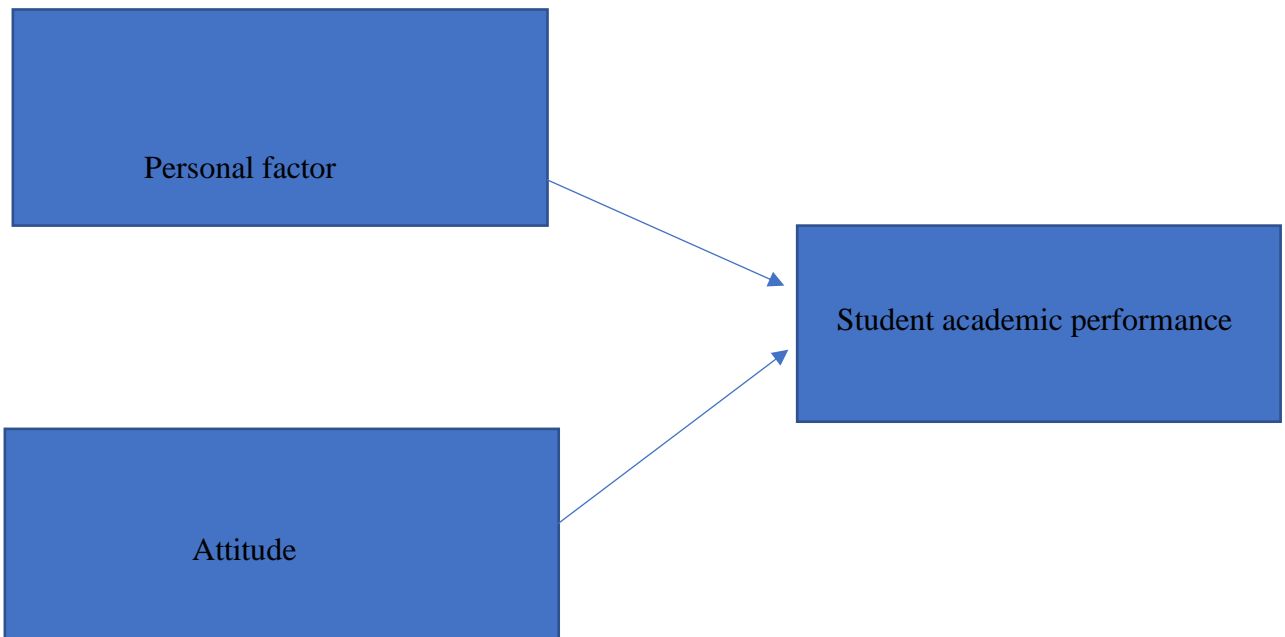
2.6 Theoretical Framework

Figure 2.1 Theoretical Framework

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

In order to achieve the research objectives, this chapter discusses the study technique, namely the relationship between personal factors and respondents' attitude toward playing online mobile games towards student academic performance in Polytechnic Premier Sultan Salahuddin Abdul Aziz Shah (PSA), Shah Alam.

Methodology, according to Polit and Beck (2004), relates to procedures for acquiring, organising, and analysing data. Methodology, according to Creswell (2003), is a cohesive collection of techniques that complement one another and have the ability to provide data and conclusions that represent the research question and fulfil the researcher's aim. According to Bowling (2002), methodology encompasses the full framework of the research endeavour, including sample size and procedures, data collection practises and tools, and data analysis processes. However, research is defined as the creation of new knowledge and/or the inventive use of existing information to generate novel thoughts, methodologies, and understandings. This might require synthesising and analysing previous research to provide new and creative discoveries. (June 2020, Western Sydney University) More specifically, it is described as a way of planning, gathering, and analysing data in order to offer evidence that may be utilised to support a research project.

This chapter also describes the techniques used to carry out the study. The researchers explain how they collected and analysed the data and information required to achieve the research objectives and queries. The following parts are covered in this subject: research framework, data collection technique, research equipment, population and sampling procedures, research sample, data processing methods, and research measurement. This study's questionnaires are totally descriptive and correlative. Questionnaires were also sent to students at PSA in Shah Alam, Selangor.

3.2 RESEARCH DESIGN

The research design is the overall approach used by the researcher to collect data on the study's subject topic. This is a descriptive research using quantitative data. It is carried out to gather information on the relationship between personal factors and respondents' attitudes regarding playing online video games and student academic achievement at Politeknik Premier Sultan Salahuddin Abdul Aziz Shah (PSA), Shah alam, Malaysia. The purpose of the survey is to collect quantitative method information. Quantitative studies are the numerical representation and manipulation of data in order to describe and explain the phenomena reflected by the observations. This aided in the study of method replies in order to understand more about the student's personal qualities and attitude. This survey type use a questionnaire to learn about a certain subject from a sample over a specified time period (Adi Bhat,2019)

3.2.1 Quantitative Method

Quantitative data is represented by numbers, and mathematical and statistical analysis of these numbers can yield some solid findings. To answer questions like "How many?" and "How frequently?" quantitative data is employed. Using mathematical processes, this information may be validated and simply evaluated. This technique employs random sampling and organised data collection technologies.

3.3 DATA COLLECTION METHOD

The information series technique is extensive and successful in supporting researchers in their quest for success. Except that the data acquired by researchers should be reliable and relevant to the study, because inaccurate statistics collection might change the study's

conclusion and result in wrong conclusions ("statistics series approach," n.D.). The current study is descriptive in nature, with the purpose of examining the relationship between personal characteristics and respondents' opinions toward PSA. Data is frequently collected in one or more methods. It is necessary to carefully pick the data collecting strategy, taking into account a few elements such as the outcome and findings gained from this approach, so that the study may only be conducted in a real and recognised manner. In general, there are two types of data: primary data and secondary data. Primary data is information acquired for specific purposes, such as surveys and research. Secondary data is information that already exists somewhere and was obtained for a specific reason. Primary and secondary data are frequently utilised to establish the validity and reliability of research.

The researchers' data collection method include delivering questionnaires to the PSA study population. Questionnaires were also distributed to the pupils. They get 5 to 10 minutes to answer the questions. The obtained data was then collected and analysed in order to meet the study's goals.

3.3.1 Primary Data

A researcher's primary data is information obtained from first-hand sources. For this investigation, primary data was acquired. Because of its simplicity, cheap cost, absence of bias, and added anonymity, a self-administered questionnaire was employed for this investigation. The goal of the questionnaire is to generalise from a sample to a population and derive conclusions about the target group. As a consequence, 351 questionnaires were distributed to PSA respondents. This is done to ascertain the respondents' feelings on playing online video games.

3.3.2 Secondary Data

Secondary data is information obtained by previous researchers that is error-free. Primary data, on the other hand, is information obtained directly from the source. The goal of collecting secondary statistics is to make primary fact series more detailed and to assist

researchers in determining what gaps exist and what more statistics are needed for observation. Data was obtained by researchers through internet portals such as papers, etc.

3.4 POPULATION, SAMPLE SIZE AND SAMPLE TECHNIQUE

A population is a set of characteristics within a group that statisticians use to draw conclusions about the individuals in a study. A sample is a subset of data picked or selected by a researcher from a broader population following a predetermined selection technique. These elements are known as sample points, sampling units, or observations. This study's target population would be PSA students. PSA students were also handed questionnaires.

3.4.1 Target Population

A population is a set of characteristics within a group that statisticians use to draw conclusions about the individuals in a study. A sample is a subset of data picked or selected by a researcher from a broader population following a predetermined selection technique. These elements are known as sample points, sampling units, or observations. This study's target population would be PSA students. PSA students were also handed questionnaires.

3.4.2 Sample Size

PSA students will be selected as sample sizes. Zamboni (2010) defines sample size as the number of individual samples or observations used in a survey or investigation. In statistics, the variable "n" denotes sample size. To compute sample size, the Krejcie and Morgan table is utilised. Krejcie and Morgan (1980) estimate that the population surpasses 4000, hence the number of responders should be 351.

TABLE 1
Table for Determining Sample Size from a Given Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—N is population size.
S is sample size.

3.4.3 Sampling Technique

In this study, the researcher employed non-probability sampling approaches, in which respondents were picked at random from the general population. Researchers used this sampling technique since all targeted respondents had to fulfil the PSA student requirements.

3.4.4 Sampling Location

The researchers focused on PSA students. This is because the PSA student population was chosen for this study. The surveys were distributed by the researchers using Google Forms.

3.5 RESEARCH INSTRUMENT

A research instrument can be any equipment used to obtain and collect research data. A questionnaire, a series of interview questions, or a checklist might be used as the instrument. In this study, the questionnaire was the major research tool, with the purpose of eliciting as much related information from the respondents as possible. The questionnaire, according to Sekaran and Bougie (2013), is an appropriate technique of data collecting since it is simple to use, maintain, saves time, and helps data processing operations. The types and forms of questions in a questionnaire, according to Sekaran and Bougie (2013), have an influence on the questionnaire's quality. It would include enough questions to fulfil survey objectives while not overwhelming respondents. The questions must be long enough to elicit the relevant information while remaining brief enough to encourage an ideal response rate.

However, extra care should be used while creating surveys to ensure that each question is as clear as possible. The assessment is completed when the information from the questionnaires are collected. The questionnaire questions were modelled after those used by previous researchers and were completely tailored to this study (O'Brien, 1997).

3.5.1 Question Design

The questionnaire is the most often used instrument, whether conducted in person, over the phone, by email, or online. It is quite versatile; there are several methods to ask questions. The questionnaires are a large set of printed forms meant to collect particular information. Furthermore, it includes a set of 25 essential worksheets that may be used in any subject. The questionnaire was divided into four sections:

1) Section A: Demographic

2) Section B: Student Academic Performance

3) Section C: Student Personal Factor

4) Section D: Student Attitude Towards Video Games

In section A, it consists of five questions which closely related to the demographic records namely gender, department, and other questions regarding the respondents. It is recorded to classify the student from the PSA

In section B, it consists of five questions which regarding the respondents. It is recorded to classify the student academic performance

In section C, it consists of four questions which regarding the respondents. It is recorded to classify the student personal factor

In section D, it consists of nine questions which regarding the respondents. This segment is recorded about the student attitude towards video game.

3.5.2 Pilot Test

A pilot test was conducted before to the actual questionnaire's behaviour to uncover any issues within the surveys, such as confusing questions. Meanwhile, pilot testing lets researchers to discover and correct a wide range of capability concerns that may arise during the questionnaire preparation process before the actual questionnaire is delivered (Pratt, 2008).

Thirty questionnaires were distributed for the pilot test, and the input obtained was used to improve the clarity of the question. Following the gathering of questions, the reliability test was conducted using the SPSS statistical challenge.

Cronbach's Coefficient Alpha was used to measure the dependability. The results of the pilot test are shown in Table 3.5.2.

Context	Number of Items	Cronbach's Alpha
Personal Factors	4	0.876
Student Attitude	9	0.942
Student Academic Performance	4	0.993

Table 3.5.2(1) Result of Reliability Test

Cronbach's Alpha	Internal Consistency
0.00 – 0.20	Poor / Unacceptable

>0.20 – 0.40	Questionable / A Bit Reliable
>0.45 – 0.60	Acceptable / Reliable Enough
>0.60 – 0.80	Good / Reliable
<0.80 – 1.00	Excellent / Very Reliable

Table 3.5.2(2) Cronbach's Alpha Table
Source: Hair et al. (2010)

3.6 METHOD OF DATA ANALYSIS

Data analysis is a way of reducing and organising data in order to produce results that the researcher must evaluate (Burns and Grove 2003). Data analysis, according to Field and Morse (1996), may be a difficult and creative process defined by the researcher's intimate connection with the participants and the data collected.

3.6.1 Validity and Reliability

Testing reliability and validity is a critical step in the scale development process. The researchers conducted a pilot survey to assess the scale's statistical variability. The most often used dependability statistic is Cronbach's Alpha. Validity emphasises the tools' ability to gather or explain what the researchers want to know (Sekaran & Bougie, 2016). Validity refers to the accuracy of findings, interpretations, or actions based on test scores (Messick, 1989). The degree to which a measuring device measures what it is supposed to measure is known as its validity (Thatcher, 2010). According to Pearson's correlation table (r-table), if the value of each item is greater than r-table (Appendix 1).

The consistency, stability, and repeatability of a researcher's results are deemed dependable if consistent results have been acquired in same scenarios but under various circumstances (Twycross and Shields, 2004). Cronbach's alpha is used to assess the consistency of a questionnaire, which is mostly illustrated through Likert Scale questions.

According to Laerd Statistics, Cronbach's alpha is the most commonly used statistic of internal consistency or dependability (2013).

3.6.2 Descriptive Analysis

The process of describing or summarising a collection of data using statistical techniques is known as descriptive analysis, also known as descriptive analytics or descriptive statistics. Descriptive analysis, as one of the basic types of data analysis, is well-known for delivering actionable insights from otherwise uninterpreted data. Descriptive records are created using frequencies, central tendency measures, and dispersion. The frequency system offers records and graphical displays that may be used to present a range of data.

3.6.3 Correlation Analysis

Pearson correlation was used to evaluate the inter-correlations between all variables in the study. The correlation coefficient's value was utilised to study the relationship between personal f actor and responder attitude regarding playing video games (r). If the estimated correlation coefficient (r) is high, the dependent variable and the independent variable will have a strong relationship. Furthermore, if the correlation coefficient (r) was found to be weak, it showed that the relationship between the independent and dependent variables was degrading. Cohen (1992) recommends that effect sizes of 0.20 are little, 0.50 are moderate or medium, and 0.80 are large, allowing us to compare an experiment's impact size results to established benchmarks.

3.7 SUMMARY OF THIS CHAPTER

The third chapter describes the study design, population, research, and sample methodologies, as well as data collection techniques, research instruments, and data analysis methods. The research approach and design depict the entire inquiry procedure.

APPENDIX

GANTT CHART

LIST OF ACTIVITIES	month/week													
	SEPT				OCT				NOV				DEC	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
BRIEFING - INTRODUCTION TO BUSINESS PROJECT FORM GROUP PROJECT	▓	▓												
DISCUSS ON RESEARCH TITLE DETERMINING THE SCOPE AND RESEARCH PROBLEM			▓	▓										
PREPARE BUSINESS PROJECT PROPOSAL DISCUSS AND AMEND CHAPTER 1 (INTRODUCTION)					▓	▓								
PREPARE BUSINESS PROJECT PROPOSAL DISCUSS AND AMEND CHAPTER 2 (LITERATURE REVIEW)							▓	▓						
PREPARE BUSINESS PROJECT PROPOSAL DISCUSS AND AMEND CHAPTER 3 (METHODOLOGY)									▓	▓				
DATA COLLECTION PROCESS									▓	▓				
PREPARE BUSINESS PROJECT PROPOSAL DISCUSS AND AMEND CHAPTER 4 (RESEARCH FINDING)											▓	▓		
PREPARE BUSINESS PROJECT PROPOSAL DISCUSS AND AMEND CHAPTER 5 (CONCLUSION AND RECOMMENDATIONS)													▓	▓

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

This chapter represents the result of the study from the statistical analysis conducted on the collected data and hypothesis testing. This chapter will further elaborate the output of study based on the SPSS. The data collected was analyzed by using IBM SPSS. IBM SPSS (Statistical Package for the Social Sciences) is a computer application that supports statistical analysis of data, generating tabulated reports, charts and plots of distributions and trends, descriptive statistics, and complex statistical analysis. This chapter consists of respondent's profile findings, validity & reliability, descriptive statistic, and regression analysis.

4.2 SAMPLE AND PROFILE

A total of 351 responses were obtained from 351 questionnaires that have been distributed. The demographic profile of the respondents has been identified in section A of the questionnaire. A total of 5 questions consists of respondent's gender, department, races, devices that student use to play video games, and student result for last semester.

PROFILE	FREQUENCY	PERCENTAGE
GENDER		
MALE	230	65.5%
FEMALE	121	34.5%
DEPARTMENT		
JPG	84	23.9%
JKA	60	17.1%
JKE	61	17.4%
JKM	146	41.6%
RACE		
MALAY	172	49%
INDIAN	81	23.1%
CHINESE	60	17.1%
OTHER	38	10.8%
DEVICE YOU USE TO PLAY VIDEO GAMES		
SMARTPHONE	197	56.1%
LAPTOP	82	23.4%
COMPUTER	72	20.5%
YOUR RESULT FOR LAST SEMESTER		
0.00-1.00	0	0%
1.01-2.00	2	0.6%
2.01-3.00	3	0.9%
3.01-4.00	346	98.6%

TABLE 4.2

As shown in Table 4.2, the analysis of respondents' gender has revealed that 65.5% of the respondents were male while female consisted of 34.5% of the total sample size.

Furthermore, 23.9% of the respondents were from JPG, 17.1% from JKA, followed by 17.4% from JKE, while the other 41.6% were from JKM.

Next, majority of the respondents were Malay with 49% of the respondents, while 23.1% of it were Indian, 17.1% from the Chinese and 10.8% are from other races.

The research also asks the respondent about what device the student used to play video games. 56.1% of the respondents are using smartphones, 23.4% of students are using laptops, while the other 20.5% are using computers.

Lastly, researchers asked about their result for last semester, only 0.6% students got 1.01-2.00 for their pointer, the other 0.9% were 2.01-3.00 and the majority show 98.6% of the student got 3.01-4.00 for their last semester's result.

4.3 SCALE OF MEASUREMENT

Scale of measure or level of measurement is a classification that describes the value of information within the values assigned to variables. Each scale of measurement has certain properties which intern determines the appropriateness for use of certain statistical analyses

4.31 Reliability Test

Reliability analysis refers to the fact that a scale should consistently reflect the construct it is measuring. The quality data collected from questionnaire surveys was important to produce accurate and good results. A preliminary test was carried out to ensure that the data was free from any mistakes before further research was conducted so that consistent decisions could be made.

Variables	Number of items	Number of items discarded	Cronbach's Alpha
Personal Factor	4	-	0.823
Student Attitude	9	-	0.700
Student Academic Performance	5	-	0.959

Table 4.3.1

Shows the value of Cronbach's Alpha coefficient for all items according to personal factor, student academic and student academic performance towards student in Politeknik Shah Alam, as shown in the table above is higher than the minimum level of 0.6 as proposed by Sekaran, U. & Bougie, R. (2010). Therefore, questionnaire items showed satisfactory internal consistency to continue in further statistical analysis.

4.4 RESEARCH FINDING

4.4.1 DESCRIPTIVE ANALYSIS

	ITEM	VARIABLES	N	Mean	Std. Deviation
STUDENT'S ACADEMIC PERFORMANCE	AP1	I made myself ready in all my subject	299	3.32	1.543
	AP2	I pay attention and listen during every discussion	299	3.43	1.455
	AP3	I want to get good grades in every subject	299	3.74	1.449
	AP4	I actively participate in every discussion	299	3.26	1.512
	AP5	I start paper and projects as soon as they are assigned	299	3.13	1.583
PERSONAL FACTOR	PF1	I have less interest in my study because of playing video games	299	2.6823	1.54878
	PF2	I pay less attention to my study because of playing video games	299	2.6957	1.50759
	PF3	My friends always distract me from my study to play video games	299	2.7592	1.53774

STUDENT ATTITUDE	AT1	I prefer to play video games rather than go out with classmates to have a group study.	299	3.3532	1.43185
	AT2	I cannot do my assignments in school on time because of playing video games.	299	3.9888	1.10116
	AT3	I cannot attend classes on time because of playing video games.	299	3.4164	1.21460
	AT4	I have a low grade in most of my subjects because of playing video games.	299	4.0855	1.00935
	AT5	I get a lot of friends because of playing video games.	299	3.4275	1.45304
	AT6	I play video games as my spiritual sustenance in a time that I am lonely	299	3.0855	1.46225
	AT7	I play video games to relax because of study pressure.	299	3.0372	1.58306
	AT8	I have less sleep because of playing video games.	299	3.1190	1.28451

	AT9	I think playing video games has increased my self-confidence.	299	3.3978	1.26142

Table 4.4

Table 4.4 above displays the descriptive analysis conducted on the one dependent variable and two independent variables used in this study. Based on the result from student academic performance, which is dependent variables, AP3 "I want to get good grades in every subject" has the highest mean value of 3.74, followed by AP1 "I made myself ready in all my subject" which is the median value of 3.32 and the item AP5 "I start paper and projects as soon as they are assigned" has the lowest mean value of 3.13.

Furthermore, in term of personal factor, PF3" My friends always distract me from my study to play video games" has the highest mean value of 2.7592, followed by PF2 "I pay less attention to my study because of playing video games' which is the median mean value of 2.6957 and the PF1 "I have less interest in my study because of playing video games" with the last mean value of 2.6823.

Finally, student attitude, AT4 "I have a low grade in most of my subjects because of playing video games" has the highest mean value of 4.0855. Followed by AT2 "I cannot do my assignments in school on time because of playing video games" which is the second highest mean value of 3.9888. Lastly, AT7 "I play video games to relax because of study pressure", has the lowest mean value which is 3.0372.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

In the previous chapter, the researchers have obtained results from the data collected. This chapter will discuss on the findings from previous chapter, and it contains four parts which are the interpretation of results, limitation, recommendation and conclusion of the study.

5.2 RECAPITULATION OF THE STUDY

This study aims to analyze the effect of video games towards student's academics performance. There is need to understand how the video games can affect student's academic performance. In order to substantiate the research problem, two independent variables have been stated throughout the research, which is personal factors and student attitude were chosen as the factors that can influence student to play video games. The findings of the study however, eventually answer the following question:

1. What is the relationship between personal factors towards student academic performance?

2. What is the relationship between respondent's attitude on playing video games towards student academic performance?

5.3 LIMITATION

Despite the useful findings of this research, this study has several implications that needs to be acknowledged.

Firstly, the findings in his study depend on the honesty of the respondents. This limitation occurs because respondents are not interested in giving cooperation because they have no interest in the research.

Lastly, respondents tend to hesitate to spare time to complete questionnaires that might not concern them. This is because respondents may have to catch time and other problems may occur to them. It is depending on the respondents if they want to answer the question or not.

5.4 FUTURE RESEARCH

1. Future research can expand this study to include the new effect of video games towards student's academic performance.

2. Further research is needed as an awareness to student about the effect of video games towards their academic performance.

5.5 CONCLUSION

The research was based on the objectives which are to investigate the effect of video games towards student's academic performance, to identify the most important effect that can affect student's academic performance and to examine the relationship between personal factors and student's attitude towards student's academic performance.

After the analysis of multiple reliability test, results have shown that all of the two independent variables include personal factors and students attitude have positive significant relationship and influence with student's academic performance.

The study has shown that the student's academic performance has a strongest relationship with personal factors according to the Cronbach's Alpha. This shows that students who live in urban area are most likely to be addicted to video games. It is because their coverage in city are better than those who live in rural area.

5.6 RECOMMENDATION

Based on the research that was conducted, there were recommendations that can be forwarded to the school's or college's governing body, teachers, and other staff members who engage with students.

In term of time spend on video games, the prevalent consensus is that students spend the majority of their time engaged in activities other than those that are academically focused. The majority of people believe that other hobbies like watching movies, using social media, playing games, etc., distract them from their academic work. Parents should monitor their children

more often to avoid their children spend more time on playing video games rather than academically activities.

In term of peer influence, student must try their best to find and make the right circle of their friends. Try to avoid friends who always ask them to play video games. Friends is like mirror to ourselves, so be careful with who we are friends with. By avoiding friends who always want to play video games can help students to put a full stop on video games.

The researchers hoped that the recommendation would be considered by the school's or college's governing body, teachers, and other staff members who engage with students and conducted in order to reduce student's addictiveness towards video games and improve their academic performance.

5.7 SUMMARY OF THE CHAPTER

As a conclusion, this portion summarizes the entire chapter of this study. There are improvements that can help the school's or college's governing body, teachers, and other staff members who engage with students, to make improvements in order to improve student's academic performance.

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