

THE RELATIONSHIP BETWEEN SMARTPHONE USAGE AND ACADEMIC
ACHIEVEMENTS OF GRADE 12 ACADEMIC STUDENTS AT FRANCISCO
RAMOS NATIONAL HIGH SCHOOL.

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INQUIRIES, INVESTIGATION, AND IMMERSION

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Chapter 1

Background of the Study

Nowadays the smartphone usage has incredibly increase in this modern generation that changes our way of living. There are some students using smartphone that affect their academic performance such as, grades, test scores, and overall academic achievement. However, smartphone lead to negative such as decreased face to face social interaction, increased screen time leading sedentary behavior, sleep disturbances and cause depression. There are many ways to avoid this negative effects such as limit on using your phones, set some boundaries and create a time management that can reduce the effect on using phones on your academic achievement.

A substantial body of work has studied the correlation between smartphone use and academic success. However, most research measured smartphone use with self-report surveys rather than objective phone logs. However, such self-reported measures can be subjective and biased, especially in problematic use cases (for instance via experienced time distortions on the smartphone; see Lin, Lin, et al., 2015; Montag et al., 2015).

The aim of this study is to find ways to reduce of usages smartphone that can affect the academic achievement of the student.

Statement of the Problem

This aimed to investigate the impact of smartphone usage on the academic achievement of Grade 12 academic students in Francisco Ramos National High School. The study will be conducted during the school year 2023-2024.

Specifically, it aimed to answer the following queries:

1. What is the average of hours per day that the grade 12 academic students spend on smartphone?
2. How does smartphone usage affect the academic achievements of the grade 12 academic students?
3. Is there a relationship between smartphone usage and academic achievements of grade 12 academic students?

Hypotheses

Null hypothesis (H_0): There is no relationship between smartphone usage and academic achievements of grade 12 academic students.

Alternative hypothesis (H_a): There is a relationship between smartphone usage and academic achievements of grade 12 academic students.

Scope and Delimitation of the Study

This study focused on determining the impact of smartphone usage and the academic achievements of grade 12 students during the set period. Which will be investigated on Francisco Ramos National High School, 2023-2024.

Definition of Terms

The following terms will be used extensively in this study and shall be taken according to the definition given below:

Impact refers to the effect or influence that something has on its surrounding, whether it be a person, thing, or situation.

Interplay. Refers to the dynamic interaction or relationship between two or more things.

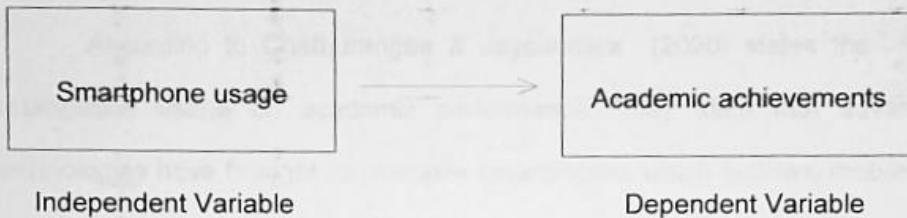
Sedentary behavior. A term that determine an activities with minimal physical activity.

Sleep disturbance. Use in determining the sleep disturbance refers to disruption in normal pattern.

Usage. The way something is used or consumed.

Conceptual Framework

The conceptual framework of the study is shown in Figure 1.



This presents the focused on the variables of the study which is the impact of smartphone usage on the academic achievement of Grade 12 academic students at Francisco Ramos National High School.

This conceptual framework illustrated the complex interplay between smartphone usage and academic achievements among grade 12 academic students. It highlights the influence of variable such as frequency of smartphone use, study habits, academic performance metrics, social interaction, screen time, sleep quality and psychological well-being. Though a flow chart and accompanying narrative, the framework provides a comprehensive overview of the factors impacting the research topic and guide the formulation of hypothesis and research methodology.

Chapter 2

Review of Related Literature

This chapter reviews the literature related to the impact of smartphone usage on the academic achievements of grade 12 students in Francisco Ramos national high school which will provide bases for the interpretation of the data that shall be gathered later.

According to Chathurangaa & Jaysundara (2020) states the impact of smartphone usage on academic performance. They state that advancements technologies have brought for versatile smartphones which facilitate mobile learning and improve access to education resources although there is extensive global research on the use of smartphone and it's impact on academic performance.

Meeyun and Heoncheol(2020) state the Relationship between adolescent using smartphones and patterns, achievements,goals and academic achievements.Accordingly,(Meeyun& Heoncheol,2020)The study delves into the specific ways adolescents utilize smartphones, examining how these usage patterns are connected to their levels of self- control, their ability to achieve personal goals, and their academic performance. It likely involves surveys, interviews, or observations to gather data on smartphone usage habits and their impact on various aspects of teenagers' lives.

According to (Faheem & Jawad,2021) state that the impact of smartphone usage on the learning behavior and academic performance of students: empirical evidence from Pakistan. Mobile phone devices are not communication device anymore; they include a variety of features and function that were possible years ago.

The several results show the positive and negative effect of smartphone consumption on the academic performance.

Kelebogile and Omphile (2022) state that about the advance in human computer interaction. Advance in human computer interaction. Accordingly, (Kelebogile & Omphile, 2022) state the widespread use of smartphone phone among college students has sparked interest about the impact on their academic performance however, smartphone use may leads to poorer grades due to distractions like social media and other platforms that cause a negative impact on their academic performance.

Ngozi Oblilor(2022) state that mobile phone usage and academic performance among secondary school students in government technical college, Ossomala Anambra state, Nigeria. Use of smartphone that lead the impact on their academic performance included the various country of Nigeria. They found that smartphone offer some benefits that may help to access an information...(Ngozi Oblilor,(2022).

Jen and Chia (2022)state the The impact of smartphone use on learning effectiveness: A case study of primary school students.Accordingly (Jen&Chia,2022)This study examines the influence of mobile technologies on learning, enabling educational activities to occur at any time and place. Despite the impact of smartphones on learning, limited research has explored their dual role in both learning and socializing. This research aims to fill this gap by investigating the relationship between smartphone usage and learning outcomes among individuals in this age group.

Jose et al.(2023) discussed that Smartphone Usage Towards Learning Behavior and Academic Performance of Accountancy, Business, and Management Students of Tacurong National High School. Today's generation ... (Jose et al., 2023). This focusing on how technology usage, particularly for novelty seeking and investigation the correlation between smartphone usage that emphasize the addictive nature of excessive of smartphone and detrimental the effects.

Therefore, smartphone usage has incredibly increase in this modern generation this may find a clear determination about the impact of smartphone usage on the academic achievement of grade 12, students, it highlights the strategies to mitigate the positive and negative effect that indicate the excessive impact.

Chapter 3

Research Methodology

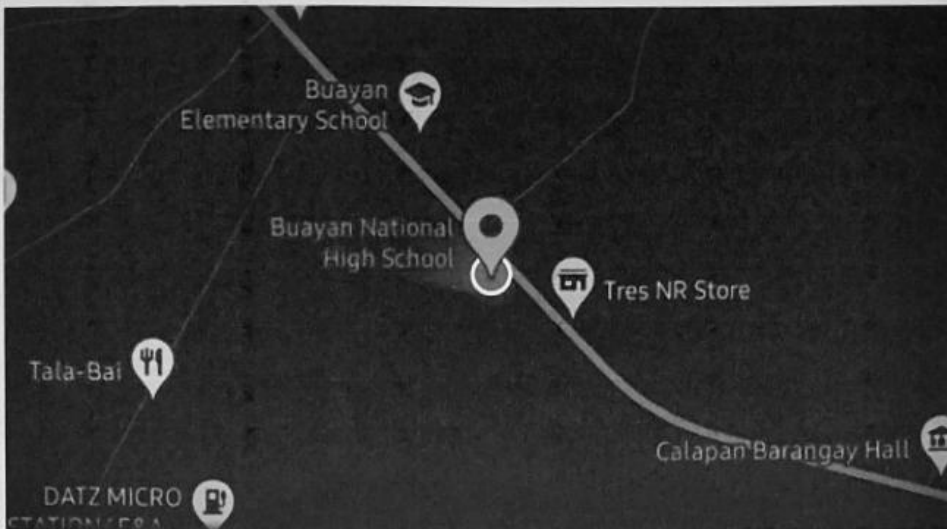
This chapter presents the research methods of the study. It includes discussion on the research design and research methods covering the research environment, research subjects, sampling techniques, instrumentation, data gathering techniques, and statistical treatment.

Research Design

This study was made by the means of quantitative methods of researchers. The researcher will attempt to determine the relationship between smartphone usage and academic achievements of grade 12 academic students at Francisco Ramos National High School. A correlational research study uses non-experimental method where the measurement of two variables occurs. This method can be time-consuming process. But the strength of this design is the researchers could observe participants in a close environment because it doesn't matter where nor how the variables get measured. Researchers can determine the direction and strength of each relationship.

Research Locale

The target population is 20 among the grade 12 students in Francisco Ramos National High School. This place was selected for determining the relationship of smartphone usage and academic achievement of Grade 12 academic students.



Research Respondents

The respondents of this study were the grade 12 academic students in Francisco Ramos National High School. The researchers listed all the units in selecting respondents 20 in Faith, 30 in Love, and 26 in Wisdom in total of 76 respondents.

Sampling Techniques

The methods that were utilized were straightforward random sampling and researcher selection, in which the researchers selected the individuals who would be eligible to participate. According to Lohr, S.L. (2019). Sampling: design and analysis. Write each identity on a slip of paper, place them in a fishbowl or container, mix them thoroughly, and randomly draw out the required number of slip.

Instruments

The research's instrument is questionnaire using a questionnaire in research study. Where it will indicate the relationship between smartphone usage and academic achievements. Helpful it lets the researchers to collect data, analyse it

easily, ask everyone the same question, get detailed answers, and understand what the participants think.

Data Gathering Procedure

The researcher's will gather the data by distributing a survey questionnaire. The participants typically answer a questionnaire by reading each question and providing their responses based on the options provided or by writing their answer in close ended questions. The method of answering depends on how the questionnaire is administered and the instructions provided to the participants.

Statistical Treatment

The gathered data from the observation by the researchers were statistically analyzed with the data requirements of the study. The participants were statistically analyzed with the data instrument.

To know if there is a correlation between the between the independent and dependent variables Person Product Moment of Correlation Coefficient was utilized with 0.05 Level of significance.

Chapter 4

Presentation, Analysis and Interpretation of Data

This chapter presents the results, the analysis and interpretation of data that was gathered from the observation checklists that given to the selected participants. The data were presented in tables, and graphs form in accordance to the specific research problem that was posited on the statement of the problem.

Figure 1. Age of respondents using smartphones

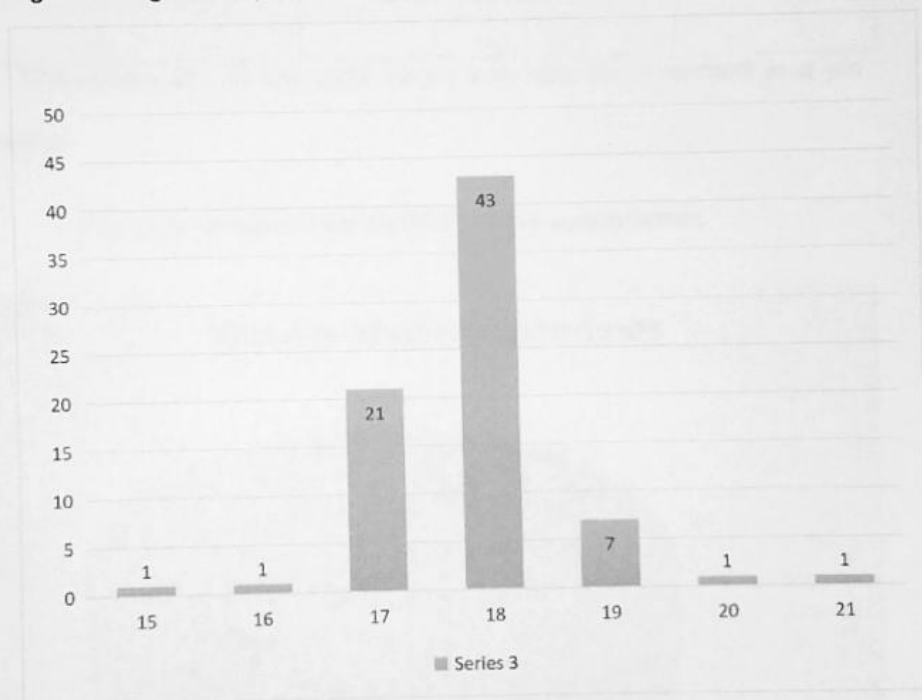


Figure 1. Shows the age of the grade 12 academic students who uses smartphone. It has been revealed that most of the respondents are 18yrs old and has a number of 43 which indicates that is normal for a grade 12 to have that age. The respondents of age 17 is the second highest with a 21 responds.

Respondents of age 15, 16,20, and 21 are the lowest with an 1 respondents for each .

Table 1: Gender of the students using smartphones

| | Frequency | Percent | Valid | Cumulative Percent |
|--------|-----------|---------|-------|--------------------|
| Male | 18 | 11.84% | 18 | 11.84% |
| Female | 58 | 38.16% | 58 | 50.0% |
| Total | 76 | 50% | 76 | |

The information in the table above can also be presented in a pie chart below.

Figure 2: Gender of the students using smartphones.

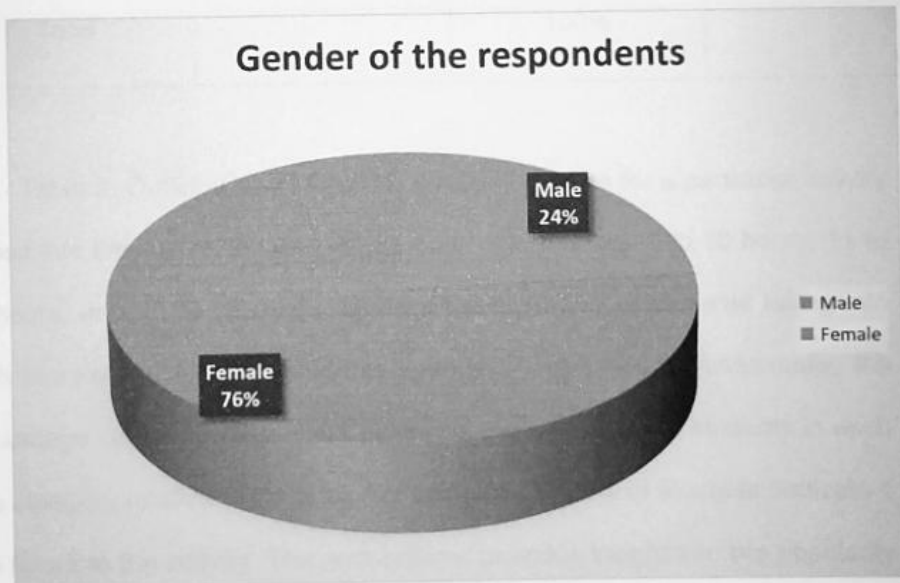


Figure 2. According to Figure 1 above, it can be easily concluded that female students (76%) from the grade 12 academic students use smartphones more than male students.

Table 2. The hour spend of the Students

| No. of hours | Frequency | Percentage | Rank |
|--------------|-----------|------------|------|
| < 1hr | 9 | 11.84% | 1 |
| 1-5hrs | 26 | 34.21% | 2 |
| 6-10hrs | 22 | 28.95% | 3 |
| 11-15hrs | 11 | 14.47% | 4 |
| 15-20hrs | 8 | 10.53% | 5 |
| Total | | 100% | |

Table 2. Outlines how students allocate their time for a particular activity across five time brackets: less than 1 hour, 1 to 5 hours, 6 to 10 hours, 11 to 15 hours, and 16 to 20 hours. It reveals the number of students falling into each bracket, such as 26 students spending 1 to 5 hours. Additionally, the percentage column gives a clear picture of the proportion of students in each time category relative to the total. For instance, 34.21% of students dedicate 1 to 5 hours to the activity. The rank column provides insight into the popularity of each time bracket, with the most common being rank 1 and the least common being rank 5. In summary, the table offers a straightforward

breakdown of student time allocation, highlighting the prevalence of certain time ranges over others.

Figure 3. The frequency of smartphone usage

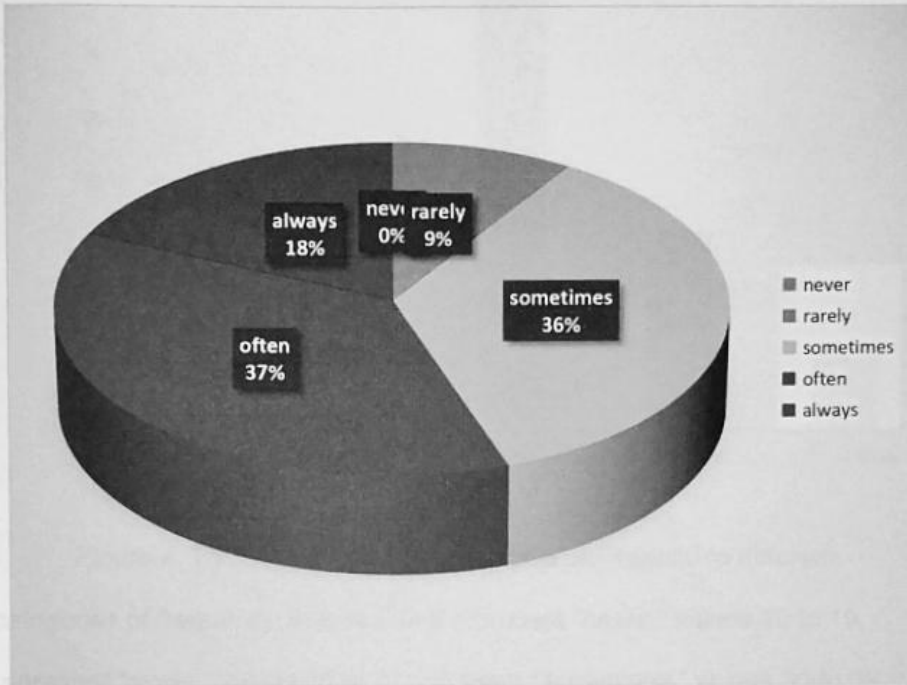


Figure 2. Shows the data presented in the chart, it shows that often is the most responds of the respondents and uses smartphone frequently, with the percentage of 37% which have the common percentage among all the choices that we gave to the grade 12 academic students.

Figure 4. Smartphone distract students from academic task.

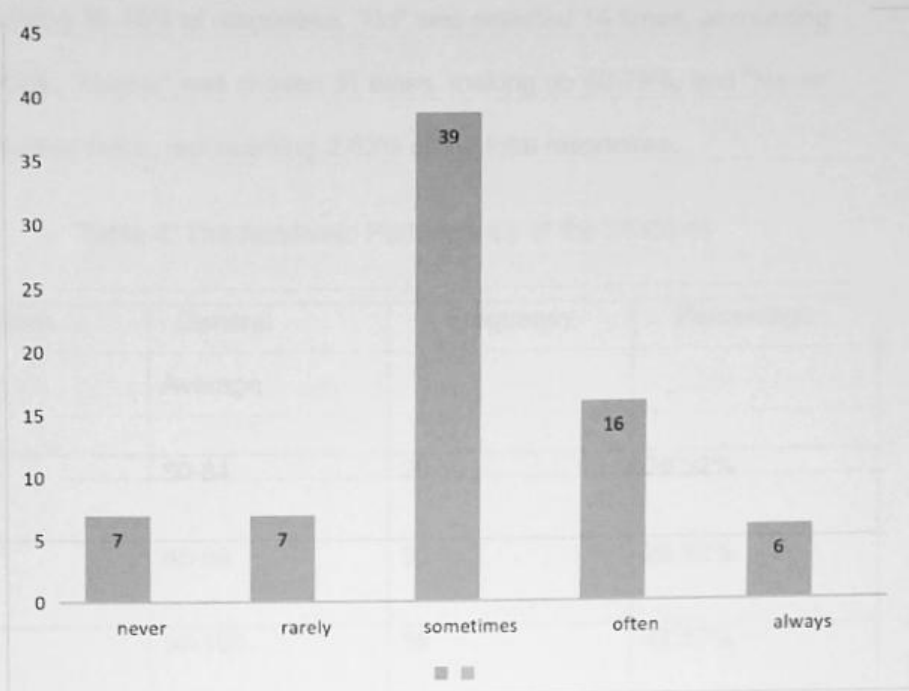


Figure 4. The numerical values provided correspond to different categories of frequency: values 0 to 9 represent "never," values 10 to 19 represent "rarely," values 20 to 29 represent "sometimes," values 30 to 39 represent "often," and the value 40 represents "always."

Table 3. Improvement of reducing smartphone use.

| | Frequency | Percent |
|-------|-----------|---------|
| Yes | 29 | 38.16% |
| No | 14 | 18.42% |
| Maybe | 31 | 40.79% |
| Never | 2 | 2.63% |

Table 3. The data shows that "Yes" was chosen 29 times, representing 38.16% of responses, "No" was selected 14 times, accounting for 18.42%, "Maybe" was chosen 31 times, making up 40.79%, and "Never" was selected twice, representing 2.63% of the total responses.

Table 4. The Academic Performance of the Students

| Rank | General Average | Frequency | Percentage |
|-------|-----------------|-----------|------------|
| 1 | 80-84 | 20 | 26.32% |
| 2 | 85-89 | 20 | 26.32% |
| 3 | 90-100 | 36 | 47.37% |
| Total | | 104 | 100% |

Grading Scale:

80-84 Satisfactory

85-89 Very Satisfactory

90-100 Outstanding

Table 5. The correlation between smartphone usage and academic achievements.

| | <i>Smartphone use</i> |
|-----------------------|-----------------------|
| <i>Academic Grade</i> | |
| Smartphone us | 1 |
| Academic Grade | 1 |

Chapter 5

Summary of Findings, Conclusion/s and Recommendations

This chapter contains the research summary, conclusions and recommendations of the whole study. The findings of the study is written on the summary of findings. Generalizations and other interference would be seen on the conclusion while the recommendations of the researchers to the beneficiaries of this study can also be seen on this chapter. Generally, this chapter aims to cover-up the end result of the study.

Summary of Findings

1. What is the average of hours per day that the grade 12 academic students spend on smartphone?

The grade 12 academic students spend hours per day on smartphones, with 34.21% percent spending 1-5 hours.

2. How does smartphone usage affect the academic achievements of the grade 12 academic students?

It affects the academic achievements of grade 12 academic students because based on our 76 respondents and our survey questionnaire that has been conducted 20 frequency with 26.32% percent was affected.

3. Is there a relationship between smartphone usage and academic achievements of grade 12 academic students?

Based on the research findings, it appears that there is a positive correlation between smartphone use and academic achievements. It means that even if they use smartphone they still achieved an academic achievements. In table 4 it shows the general average, frequency, and percentage. Also both 80-84 and 85-89 has the same frequency and percentage and 90-100 had 36 frequency with the percentage of 47.37%.

Conclusion

In conclusion, the findings of this research study suggest that there is a moderately strong correlation between smartphone usage and academic. It is statistically significant. There is a consistent relationship between the academic achievements and smartphone. Therefore, schools and policymakers need to help students use smartphones better to keep their grades from dropping.

Recommendations

In future, this can help the future researchers to explore about the relationship between smartphone usage on the academic achievement of grade 12 students. In addition, they can add more variables favorable to the topic in order to examine the overall all relationship between smartphone usage and academic achievement.

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The researcher used questionnaire research instrument. Please read each statement carefully and select the option that best represent your experience.

Name: second life ranker
Sex: Male Female

Grade & Section: _____
Age: _____

1. How many hours per day do you spend on your smartphone?
 Less than 1hr 1-5hrs 6-1hrs 11-15hrs 16-20hrs
2. How frequently do you use your smartphone for academic purposes?
 Never Rarely Sometimes Often Always
3. How often does smartphone usage distract you from academic task?
 Never Rarely Sometimes Often Always
4. Do you believe reducing smartphone usage would improve your academic performance?
 Yes No Maybe Never
5. What was your grade in the 3i's on 3rd quarter? _____