

PHINMA University of Pangasinan College Urdaneta Nancayasan, Urdaneta City, Pangasinan



A Comparative Study Between The Impacts of Limited Face-to-Face And Remote Learning of Students' Academic Performance Among Grade 12 TVL PROGRAMMING1 Students in PHINMA UPang College of Urdaneta

In Partial Fulfillment for the Requirements in:

APP 006: PRACTICAL RESEARCH 2

By:

Baltazar, Rayvhen Clarence Mercado

Braceros, Gilro Rosquita

De Vera, Carlo Delos Santos

Diamante, Cyrus Aika Mariano

Lamar, Dannah Nicole Madriaga

Rivero, Glester Aguilar

Rosquita, Alvin Peru

RESEARCHERS

Neil Brian G. Agram

GRADE 12 TVLPROG1

EAPP TEACHER

OCTOBER 2022



PHINMA University of Pangasinan College Urdaneta

Nancayasan, Urdaneta City, Pangasinan



APPROVAL SHEET

TITLE OF THE RESEARCH STUDY

This thesis entitled "A Comparative Study Between The Impacts of Limited

Face-to-Face And Remote Learning of Students' Academic Performance Among Grade

12 TVL- PROGRAMMING1 Students in PHINMA UPang College of Urdaneta"

prepared and submitted by *Group 2* in partial fulfillment of the requirements in APP 006

(PRACTICAL RESEARCH II) has been examined and is recommended for approval and acceptance.

NEIL BRIAN G. AGRAM

RESEARCH ADVISER

MARJORIE NOVA M. PAL, MEd

PRINCIPAL

ACKNOWLEDGEMENT

First and foremost, gratitudes and praise to God, for guiding us throughout our research. Everyday, we have benefitted from your direction

The researchers would also like to convey their profound gratitude to Mr. Neil Brian G. Agram, our research adviser, for providing us invaluable guidance, support, and supervision throughout the course of our research endeavor. We also want to thank him for teaching us and for his empathy, patience, and wisdom. Working and studying under his direction was an incredible honor and privilege.

Additionally, we would like to express our gratitude and appreciation to the respondents who voluntarily provided their full cooperation in order to allow the research study to be successfully completed.

Finally, we would like to thank our beloved parents for their unwavering support during the research study's development and for their words of encouragement to all those late nights that we've spent conducting our study.

DEDICATION

This work is the culmination of numerous and tedious processing hardships. This whole task is wholeheartedly and solely devoted to individuals who have served as inspiration through the efforts of the researchers.

In distinction to parents and guardians and also to classmates and friends who extended their assistance throughout the presence of difficulties while completing this research. On top of that, we, the researchers, also want to dedicate our research to our APP006 subject teacher, Sir Neil Brian G. Agram, who guided us and gave us the chance to develop, test, and collaborate on the process of making this study, which is also acknowledged in this article.

We raise our gaze to the horizon and devote this entire study to our all-powerful Heavenly Father, who provided the strength, knowledge, experience, determination, and protection.

ABSTRACT

The coronavirus pandemic presented a massive threat to the world during the first half of 2020. In response, many people started socially isolating themselves, schools halted classes and extracurricular activities, and Flex learning was implemented due to this pandemic.

We researchers aim for this study to determine the difference between limited Face-to-Face classes and remote learning in terms of the academic performance of 12 TVL-Programming students. This research is also to determine which learning modality can benefit students more, in terms of their performance and how much knowledge they can gain from both modalities and This study will provide insightful information from both learning modalities, which teachers can draw ideas to increase the effectiveness of both learning methods that can help the students.

In order to further evaluate this topic and determine whether learning modality was preferred or more useful to the students, we used operationalization tools assessment. In addition to the overall goal, we looked at and analyzed the gender and categorization score differences to see which learning modality could influence the students' prior knowledge. To sum up, this study was conducted to determine the effects of limiting face-to-face instruction for TVL PROGRAMMING students in grades 12 at the PHINMA UPANG COLLEGE OF URDANETA.

TABLES OF CONTENTS

TITLE PAGE

APPROVAL SHEET	i
ACKNOWLEDGEMENT	ii
DEDICATION	iii
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	х
I. INTRODUCTION	11
Background of the Study	12
Statement of the Problem	14
Null Hypotheses	15
Significance of the Study	16
Scope and Delimitations	17
Definition of Terms	19

II. REVIEW OF RELATED LITERATURE AND STUDIES	21
Related Literature	21
Related Studies	23
Local Studies	23
Foreign Studies	24
Theoretical Framework	26
Conceptual Framework	27
Research Paradigm	27
III. METHODOLOGY	28
Research Design	28
Research Environment	28
Research Respondents	29
Research Instrument	29
Research Procedure	30
Gathering of Data	30
Treatment of Data	31
IV. PRESENTATION, ANALYSIS OF DATA AND INTERPRETATION OF FINDINGS	35

Profile of the respondents	35
Communication Factors that Impact the Educational Performance of the Responder	nts in
Remote Learning Modality	37
Communication Factors that Impact the Educational Performance of the Responder	nts ir
Limited Face-to-Face Learning Modality	39
Prior Knowledge Factors that Impact the Educational Performance of the Respond	ents
in Remote and Face-to-Face Learning Modality	41
Hypothesis Testing	44
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	46
Summary	46
Salient Findings	47
Conclusions	48
Recommendations	49
Bibliography	50
VI. APPENDICES	51
Request Letter to the Principal	51
Letter to the Respondents	53

Survey Instrument	55
Answered Survey Instrument	59
VII. CURRICULUM VITAE	
LIST OF TABLES	
Table 1	32
Scale used to interpret the obtained weighted mean	
Table 2	33
Scale used to interpret the obtained weighted mean	
Table 3	36
Frequency Count and Percentage Distribution of the Profile of the Respondents	s in terms
of Age and Sex	
Table 4	37
Gender of Respondents	
Table 5	38
Communication Factors Impact the Remote Learning Modality	

Table 6	40
Communication Factors Impact the Limited Face-to-Face Learning Modality	
Table 7	42
Prior Knowledge Factors Impact the Remote and Limited Face-toFace Learning	
Modality	
Table 8	43
Contingency Table for Academic Performance of Students in both Learning Modalities	s
Table 9	44
Hypothesis Testing	
LIST OF FIGURES	
Figure 1	
Research Paradigm	27

CHAPTER I

THE PROBLEM AND ITS BACKGROUND

INTRODUCTION

Due to the covid 19 outbreak, many universities and colleges around the world suspended classroom instruction and shifted to online and remote learning. Many students are now accustomed to these new educational systems, but because some of them have changed, several local government units and private schools have requested limited face-to-face classes in low-risk areas, and now limited Face-to-Face will be implemented to the selected school.

Our study will define the effectiveness of face-to-face learning versus remote learning in environmental studies, as well as the difference between limited face-to-face classes and remote learning in terms of academic performance of 12-TVL PROGRAMMING students at PHINMA UPANG COLLEGE OF URDANETA.

Our research aimed to compare remote learning and face-to-face learning on two levels: pure modality and gender. This will benefit both students and teachers because the study will provide useful insights into both learning modalities, and teachers will be able to derive ideas to improve the effectiveness of both learning methods. Students, on

the other hand, will have knowledge of the factors influencing their academic performance from both modalities.

Although the study had limitations, it was conducted to provide us with additional measures to determine if students performed better in one environment than another. Future quantitative method designs can build on the methods, procedures, and operationalization tools used in this assessment to further analyze this topic.

A. Background of the Study

With the arrival of online learning modality, students can now gain knowledge and learn new skills remotely. In contrast to the traditional learning method, online based education allows for classes to be transmitted remotely with the help of a single internet connection. This study aims to ascertain the difference between limited face-to-face learning and remote learning modality in terms of students' academic performance. To accurately determine which learning modality produces better student performance, the benefits and drawbacks of both methods must be thoroughly studied. Flexibility and accessibility are the main benefits of remote learning, but there are other benefits that go beyond what they initially appear to be, such as much-needed mobility for students and time efficiency (Wladis et al., 2015). Despite these advantages there are also downsides of this modality, according to Atchley

et al.(2013) in online learning method the lack of communication is evident for both students and teachers, which lead frequent can to miscommunications. In contrast to remote learning modal, face-to-face learning method requires in-person discussions which students value more since it promotes more student-teacher interactions. Furthermore, in face-to-face learning modal, teachers can adjust their teaching style to enhance students understanding about the lectures (Kemp and Grieve, 2014). Some of the drawbacks of learning in-person is it increase the risk of getting COVID-19 virus and it lacks flexibility since students need to follow a fixed schedule every day. According to the study by Paul and Jefferson (2019), students who have enrolled in the face-to-face learning model had the highest percentage With Approximately 64% as compared to students who have enrolled with online learning with 36%. This study shows that there is a significant difference between face-to-face learning and online learning modality in terms of students academic performance. Furthermore, the performance of students who are learning tutorials remotely is significantly lower than students who are participating in face-to-face lectures (Foo et al., 2021). Also, professors believe that students receive better quality of education in face-to-face learning compared to online learning modality (Gulacar et al., 2013). With these facts, it is clear that there is a significant difference between the two learning methods. Due to the aforementioned situations, the researchers have come up with the notion of exploring the difference between the

face-to-face learning and remote learning method to a greater degree without bias and increase the knowledge of students and instructors about the unique nature of both modalities. Moreover, we noticed the necessity to fill in the gaps and shortcomings that exist about this study and by doing this research we can fix such lapses and omissions about this topic.

B. Statement of the Problem

This study aims to know what would be the impact of limited face to face classes to the grade 12 TVL PROGRAMMING students of PHINMA UPANG COLLEGE OF URDANETA.

Specifically, It sought to answer the following questions.

- 1. What are the possible factors that make limited face to face classes better than remote learning or vice versa?
 - a. Better communication between educators and learners
 - b. Clearer Comprehension
 - c. Convenience
 - d. Time Efficiency
 - 2. Is limited face to face classes necessary to the GRADE 12 TVL PROGRAMMING OF PHINMA UPANG COLLEGE OF URDANETA?

- a. Yes
- b. No
- 3. What is the influence of limited face to face and remote learning modality to the educational performance of our respondents in terms of;
 - a. Student engagement
 - b. Student satisfaction

Null Hypothesis

There is no significant difference between the face to face and remote learning modality with regard to the academic performance of the respondents in terms of

- a. Output Quality
- b. Peer Influence
- c. Examination Results
- d. Prior Knowledge

Significance of the Study

There are numerous analogies between remote and face-to-face learning methods. Students still must submit assignments on time and participate in group initiatives. Teachers must therefore create significant teaching techniques and interact with class concerns as well as issues. Despite their fundamental similarities, the two modalities differ significantly. Remote learning is a method of education whereby students learn in a fully virtual environment, while face-to-face learning is essentially a teacher-centered method. Generally, the results of this study will aid the researchers to settle which learning modality can benefit the most in terms of 12 TVL PROGRAMMING students' academic performance. This find will provide new perspectives on how much knowledge they can gain from both modalities. Specifically, this research will benefit the following;

Students. This study would serve as the basis in improving the delivery of lessons among 12TVLPRGRAMMING students in order to develop and maintain their desired learning modalities.

Teachers. The collected data in this study will assist teachers in determining which learning modality best suits their skills and may allow them to give the best teaching methods and provide quality education to their students.

Other Researchers. This study will contribute as the body of insight that other researchers can use as a resource to determine where gaps in the literature exist for future studies on relevant topics.

C. Scope and Delimitations of the Study

This research study will actually inspect the impacts of Limited Face-to-Face and Remote learning on the academic performance among Grade 12-TVL PROGRAMMING students in Phinma Upang College of Urdaneta . The information and records that will be gathered from the 18 students both male and female in Grade 12-TVL PROGRAMMING 1 from Phinma Upang College Of Urdaneta that researchers' chosen, which is quite significant. This research study will no longer cover any other problems or issues that are not related to the impacts of Limited Face-to-Face and Remote learning on the academic performance of the 12 TVL-PROGRAMMING. The researchers will give each respondent the equal and same questionnaires to answer. The findings or outcome of this study will basically apply solely to the study's respondents in a subtle way. It will not really be used as an assessment of the impact of Limited Face-to-Face and Remote Learning on academic performance of students

who are not included in the study's population. The primary source of data is the survey method, which is prepared by the researchers.

SCOPE		
1.Actual place where the study will only	PHINMA UPANG COLLEGE OF URDANETA	
be conducted		
2.Duration of the conduct of the study	1ST SEMESTER OF ACADEMIC YEAR 2022-2023	
3. Variables involved or to be tested	INDEPENDENT VARIABLE:TWO LEARNING METHOD	
	a.Remote Learning and	
	b.Limited Face-to-face	
	DEPENDENT VARIABLE:Impacts on Students' Academic	
	Performance	
4.Respondents of the study	12 TVL-PROGRAMMING STUDENTS AT PHINMA	
	UPANG COLLEGE OF URDANETA	

DELIMITATIONS

1. This research study will actually inspect the impacts of Limited Face-to-Face and Remote learning on the academic performance among Grade 12-TVL PROGRAMMING students in Phinma Upang College of Urdaneta.

- 2. The researchers will give each respondent the equal and same questionnaires to answer. The findings or outcome of this study will basically apply solely to the study's respondents in a subtle way.
- 3. It will not really be used as an assessment of the impact of Limited Face-to-Face and Remote Learning on academic performance of students who are not included in the study's population.

D. Definition of Terms

Throughout the standing point such as " Modality ", " Remote Learning ", " Limited Face-to-Face ", " Impact ", " Academic Performance ", " Drawbacks " and " Limitations " will be handed down. To ensure that all of the readers may interpret these terms in the same way that committee intended, the following definitions are provided.

Modality - We used this word to illustrate the two methods of learning 12-TVL-PROGRAMMING students.

Remote Learning - We utilized this term because it serves as the way of a new learning method for 12-TVL-PROGRAMMING students which involves independent learning and remote coaching at the same time.

Limited face-to-face learning - We used this term to illustrate the method of learning which involves the traditional way of education which promotes in-person discussions towards educators to learners.

Impact - We utilized this word to define the outcome covered in both modalities.

Academic performance - We used this phrase to denote how 12-TVL-PROGRAMMING students perform academically from both learning modalities, which is remote and limited face-to-face learning modal.

Drawbacks - We utilized this term to illustrate the disadvantages of both remote and limited face-to-face learning modality.

Limitations - We utilized this term to describe the shortcomings of both remote and limited face-to-face learning methods.

CHAPTER II

REVIEW OF RELATED LITERATURE AND STUDIES

Several theories associated with this study are defined in this chapter. This chapter focuses on the theory of limited face-to-face conversing for academic purposes, including factors, related elements, as well as learning challenges.

Related Literature

Limited Face-to-Face

A joint memorandum circular (JMC No. 2021-001) was released by the Commission on Higher Education (CHED) and the Department of Health (DOH) in the Philippines, defining the guidelines for gradually reopening higher education campuses for limited face-to-face classes during the COVID-19 pandemic Aside from strict adherence to health protocols, the circular recommended limiting the number of COVID-19 reproductions on campus by implementing a cyclical student shifting model. The academic year 2020–2021 was one of the most challenging times for faculty, students, and academic administrators. Despite high vaccination rates, some form of in-person graduations and the ability to return to some face-to-face learning, one cannot deny the challenges posed by the raging pandemic (Dorn et al., 2020).

In a study conducted by Salcedo (2010) in view of the "Comparative Analysis Of Learning Outcomes In Face-To-Face Foreign Language Classes Vs. Language Lab And Online", This study showed a comparison regarding the subsequent semester compared to an intermediate class taught in the traditional classroom in contrast to the same class conducted online. Salsedo stated that the Traditional education system is widely recognized to be teacher-centered and requires learners to learn passively. Online learning is frequently student-centered and requires active learning instead of detached listening and analysis. Furthermore, She also stated the classroom benefits that are not available to online students are the handwritten corrections and comments covered during class time, praise stickers on work and time limit extended if all students are not finished. While online benefits that are not available to face-to-face students reflect on homework and quiz answers can be researched on other websites and online quizzes can be open book.

A study by Schutte (1997) "Virtual Teaching in Higher Education: The New Intellectual Superhighway or Just Another Traffic Jam?" showed that instruction provided online can result in improved performance. That study also showed that the face-to-face group provided more positive ratings than the online group. Face-to-face students also had a more favorable opinion of the amount and type of interactions among the students. The findings show that online learning can be as effective as face-to-face learning in spite of the fact that students in online programs are less satisfied with their experience than students in more traditional learning environments'. He also stated that It was hypothesized that face-to-face

professor-student interaction is crucial to test performance. However, the data indicate the reverse, that virtual interaction produces better results. In an attempt to explain this finding, it is informative to note that the virtual students seemed more frustrated, but not entirely from the technology. Rather, it stemmed from the inability to ask questions of the professor in a face-to-face environment. He believed that this led paradoxically to student compensation evidenced by more involvement between and among peers, who formulated study groups to "pick up the slack of not having a real classroom. Therefore, he suspects as much of the performance differences can be attributed to student collaboration as to the technology itself. In fact, the highest performing students (in both classes) reported the most peer interaction. Consequently, It is important that faculty contemplating the use of the virtual format pay attention to the issue of real time collaboration, whether carried from within the traditional classroom or in the context of virtual space. This is the key variable that should be controlled in further research on the subject of virtual teaching.

Related Studies

Local Studies

In the study of Salamuddin (2021) entitled "Comparative Analysis of Students' Perceptions in modular Distance Learning Approach Versus Face-to-Face Learning Approach of Mindanao State University" which sought to determine the students' perception with regards to learning remotely and learning physically. The findings of the study revealed that students from Mindanao State University prefer face-to-face learning approach over modular learning approach, since they believe that learning

physically provides significant contributions to their learnings. Salamuddin concluded that school heads and stakeholders should provide distinct reminders to parents and teachers to be more engaged with the students during their modular learning sessions.

Desphy-Zacarias et al. (2022) conducted a study on "Validation of Quality Education in Online Distance Learning and Face-to-Face Learning" which aims to validate the quality of education both in remote and in-person learning modality. The findings of the study revealed that the academic performance of students from both modalities differ slightly from one another. The only aspect that showed significant difference is the confidence of students which declined in online learning modality, but according to the study with the help of parents and teachers the confidence of students can still be restored. Furthermore, the study concluded that both traditional and online and traditional learning methods offer the same education quality with or without pandemic as long as students receive support from their parents and constant monitoring from educators.

Foreign Studies

Foo, Cheung, and Chu (2021) administered a study entitled "A comparative study regarding distance learning and the conventional face-to-face approach conducted problem-based learning tutorial during the COVID-19 pandemic". The purpose of the study is to contrast remote learning and traditional face-to-face approach in terms of students' academic performance. The result of the study was obtained by comparing two groups of fourth-year medical students, where one group used online learning

and the other group utilized face-to-face learning. Results of the study indicated that students who participated in distance learning lessons performed worse than those who used the traditional face-to-face method. The reason for this is that students who utilize remote learning methods often experience technical challenges like poor internet connection, issues regarding hardware and software learning platforms and transitional issues where students and instructors struggle to adapt in distance learning mode. However, the researchers concluded that technical issues did not cause that much of a problem and that it was more of a transitional issue. The COVID-19 pandemic has caused unusual educational adjustments, the researchers have concluded that further evaluation is needed to ascertain the causes. But based on the initial study, the transitional way of teaching.

In a study conducted by Helms (2021) with regards to the difference of students' performance in Online and Face-to-Face delivery modalities, results have revealed that students who are enrolled with face-to-face learning modality performed better than students who enrolled with online learning method. The study suggests that students who are enrolled in online learning mode are more prone to procrastination, as they tend to pass requirements much later compared to students who opt for face-to-face learning methods. Moreover, Helms have stated that students that enrolled in an online course are the ones who are balancing several obligations as they work toward their degrees. The consequences may be a challenging battle to put up the bare minimum necessary to receive class credit when there are numerous other competing demands in place. Furthermore, he concluded that the method of

learning is not the problematic factor; rather, it is the modality that serves a student with complex demands and objectives. He further added that school heads and teachers should be prepared to tackle these issues in order to maintain availability of a high level of education.

Theoretical Framework

Educational pedagogies were modified during the COVID-19 pandemic to minimize interruption to teaching. The online peer-to-peer platform-based problem-based learning lesson is one method that has been used. More and more students are choosing to take their lessons online. They find the conventional classroom setting to be constrictive, rigid, and unworkable. Schools can now offer effective classroom instruction or online instruction in this age of technological advancement. Many researchers have found that there is no difference in the academic performance of distance learning students and traditional on-campus students. Others have found that distance learning students outperform their traditional on-campus counterparts. However, other researchers have found that distance learning was a poor substitute for the face-to-face interaction that occurs in the traditional classroom. More importantly, they found that the questions that the virtual students performed more poorly on where those that required the student to apply basic concepts to more complex matters. In other words, the students in the live courses performed significantly better on questions that required a higher level of thinking than the students in the virtual courses.

Conceptual Framework

The study entitled " A COMPARATIVE STUDY BETWEEN THE IMPACTS OF LIMITED FACE TO FACE AND REMOTE LEARNING OF STUDENTS ACADEMIC PERFORMANCE AMONG GRADE 12 TVL PROGRAMMING STUDENTS IN PHINMA UPANG COLLEGE OF URDANETA" Was formulated by the researchers have come up with the notion of exploring the difference between the face-to-face learning and remote learning method to a greater degree without bias and increase the knowledge of students and instructors about the unique nature of both modalities.

Research Paradigm

The diagram below shows the relationship between independent variables, dependent variables, and the expected outcome of the study.

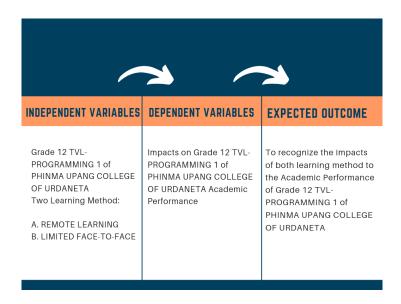


Figure 1. Research Paradigm showing the relationship between the Independent Variables, Dependent Variables, and the expected outcome of the study.

CHAPTER III

METHODOLOGY

This chapter aims to describe the study's research process, including the selection of the study's research design, environment, respondents, instruments, treatments and statistical techniques utilized in the Senior High School Department.

Research Design

We, the 12- Tvl Programming1 Researchers perceive the present state of research on Face-to-Face and Remote Learning Education interaction to be both complex and stimulating. The descriptive research method was utilized in this study. The researchers have chosen quantitative instruments to calculate data about the "Impacts of Limited Face-to-Face and Remote Learning on Students' Academic Performance Among Grade 12- Tvl Programming1 Students". The quantitative data was compiled and scrutinized by the Researchers. Furthermore, the data was gathered quantitatively.

Research Environment

This particular study was destined to be conducted at the PHINMA UPang College of Urdaneta, located at Barangay Nancayasan Urdaneta City, Pangasinan. The

mentioned site serves as the institution where both the researchers and respondents were. As a consequence of the Covid - 19 pandemic, this was already being administered online. It has been selected as the most suitable spot for the researchers' and respondents' secure comfort and safety.

Research Respondents

The respondents of the study are students in the community of Senior High School in Phinma UPang College of Urdaneta. All of these participants were chosen through random sampling.

The chosen respondents are composed of twenty-one (21) respondents from the selected strand which is the 12- Tvl Programming1 . These students of 12- Tvl Programming1 are learning about computers or computer programming. This strand will enhance their skills and knowledge especially in computer programming. These people were chosen by the researchers because they are suitable and applicable for the study.

Research Instruments

Our group used survey questionnaires as a research instrument. We prepared it before conducting the survey to our respondents from Grade 12- Tvl Programming1. The instrument was structured as a scale ranging 1-4. Where in the (1) is strongly disagree/not helpful, (2) is disagree/slightly helpful, (3) is agree/very helpful and the last one is (4) strongly agree/extremely helpful. It was focused on answering the

positive and negative impact of two learning methods. The questionnaire contains ten (10) questions and will be distributed to the respondents. The link for the survey-questionnaires was given to the twenty-one (21) respondents of Grade 12- Tvl Programming1 via social media. The collected data from the respondents will be investigated by the researchers.

Research Procedure

Gathering of Data

The researchers came up with a study entitled, A Comparative Study Between the Impacts of Limited Face to Face and Remote Learning of Students' Academic Performance Among Grade 12- Tvl Programming1 Students in PHINMA UPANG College of Urdaneta, with the guidance and assistance of the researcher's APP 006: Practical Research 2 adviser, Mr. Neil G. Agram.

For the researchers to collect crucial information required for the conclusion of the research, the researchers have created a survey-questionnaire as their research instrument. After the instrument was created, a letter was sent to the school principal and the respondents to grant permission for the survey-questionnaire to be circulated. With their consent, the researchers distributed Google Form links of the survey-questionnaire to the chosen respondents. The researchers' analysis and interpretation of the acquired data will subsequently take place.

Treatment of the Data

To present, analyze and interpret the data gathered from the respondents, we utilize the frequency courts, percentage and weighted mean.

1.) We used frequency distribution in order to: 1) determine which learning modalities are more effective, 2) determine which of the two learning modalities students prefer, and 3) determine which learning modality can benefit students the most in terms of their academic performance.

Formula:

P=f/N * 100

Where:

P = Percentage

N = No. of Students

100 = constant value

f = Frequency

2.) Formula:

WM =F4+F3+F2+F1 / N

Where:

WM = Weighted Mean

F4 = number of students who answered "Not Helpful"

F3= number of students who answered "Slightly Helpful"

F2= number of students who answered "Very Helpful"

F1= number of students who answered "Extremely Helpful"

To interpret the obtained weighted mean we used the following scale:

Table 1
Scale used to interpret the obtained weighted mean

Scale	Descriptive Equivalent
3.25-4.00	Extremely Helpful
2.50-3.24	Very Helpful
1.75-2.49	Slightly Helpful
1.00-1.74	Not Helpful

3.) To determine if there are difference between the impact of the limited face-to-face and remote learning of 12- Tvl Programming1 students on their academic performance, the average weighted mean were utilized:

Formula:

WM =F4+F3+F2+F1 / N

Where:

WM = Weighted Mean

F4 = number of students who answered "Strongly Disagree"

F3= number of students who answered "Disagree"

F2= number of students who answered "Agree"

F1= number of students who answered "Strongly Agree"

To interpret the obtained weighted mean we used the following scale:

Table 2
Scale used to interpret the obtained weighted mean

Scale	Descriptive Equivalent
-------	------------------------

3.25-4.00	Strongly Agree
2.50-3.24	Agree
1.75-2.49	Disagree
1.00-1.74	Strongly Disagree

3.) Chi-square was utilized in order to determine the difference between the Face-to-Face and Remote Learning modality with regard to the academic performance of the respondents.

Formula:

$$x^2 = \sum (fo - fe) | fe$$

Where:

 $X^2 = chi-square$

Fo = observed frequency

Fe = expected frequency

CHAPTER IV

PRESENTATION, ANALYSIS OF DATA AND INTERPRETATION OF FINDINGS

INTRODUCTION

The survey questionnaire serves as the primary source of data, gathered from the answers to the questionnaires distributed to the field, which is the 12 Tvl Programming1 Strand, with online library research serving as a backup. The methodology chapter of the book already covers the strategies used to sort through the information. Moreover, in-depth analysis and interpretation were conducted on the tables presented in the study's findings. The material gleaned from the case study sample cases is presented in this chapter as research findings and will be discussed in relation to the study's stated research aims.

PROFILE OF THE RESPONDENTS

For the academic year 2022–2023, this segment displays the age and sex profiles of 21 respondents who are Grade 12 Tvl Programming1 Senior High School students at PHINMA UPang College Urdaneta. Frequency counts and percentage distributions were utilized to analyze the collected data statistically.

Table 3

Frequency Count and Percentage Distribution of the Profile of the Respondents in terms of Age and Sex

Age of Respondents

A. Age	Frequency	Percentage	Rank
17 years old and above	2	9.5%	2
17 years old	19	90.5%	1
17 years old and below	0	0%	0
TOTAL	21	100%	

Age. Table 1 illustrates that 90.5% of respondents aged 17 years old participated in the survey, compared to 9.5% of respondents aged 17 years old and above and 0% of respondents aged 17 years old and below. As a result, the majority of the respondents to our survey were between the rank 1 - 2 and ages of 17 and 17 years old and above.

Table 4

Gender of Respondents

B. Sex	Frequency	Percentage	Rank
Male	13	61.9%	1
Female	8	38.1%	2
TOTAL	21	100%	

Gender. In accordance with table 2, 61.9% of our respondents were men and 38.1% were women. Consequently, 61.9% of our respondents are male, making them the majority.

Communication Factors that Impact the Educational Performance of the Respondents in Remote Learning Modality

Based on the outcome in Table 3, students from 12 TVL-Programming strand are satisfied with the communication in remote learning modality. As shown in the result, they find all of the given variables very helpful. They find remote learning modality

very helpful (2.86). School teachers are offering useful resources to help the respondents learn in remote learning method (3.20). They find remote coaching method very helpful in terms of understanding lessons well especially in specialized subjects like ICT (2.67). These are all considered as communication factors that impact the educational performance of the respondents in remote learning modality.

Table 5

Communication Factors Impact the Remote Learning Modality

Indicators	AWM	Descriptive Equivalent
1. On a Scale of 1 - 4,	2.86	Very Helpful
How do you feel		
about the remote		
learning modality?		
2. On a Scale of 1 - 4, How		Very Helpful
helpful your School Teacher	3.20	
has been offering you the		
resources to learn from		
Remote Learning?		

3. On a scale of 1 - 4, How	2.67	Very Helpful
helpful does the Remote		
Coaching learning method		
help you to understand the		
lessons well especially in		
specialized subjects like		
ICT?		
0	0.04	
Overall	2.91	Very Helpful

Communication Factors that Impact the Educational Performance of the Respondents in Limited Face-to-Face Learning Modality.

It was revealed in table 4 that TVL-Programming students are extremely satisfied with the communication in limited face-to-face learning modality. As indicated by the outcome, they find all the indicated factors extremely helpful. They find limited face-to-face learning modality very helpful (3.20). School teachers are offering very useful resources to help the respondents learn in limited face-to-face learning method (3.32). They find limited face-to-face coaching method extremely helpful in terms of

understanding lessons well especially in specialized subjects like ICT (2.32). These are all considered as communication factors that impact the educational performance of the respondents in limited face-to-face learning modality.

Table 6

Communication Factors Impact the Limited Face-toFace Learning Modality

Indicators	AWM	Descriptive Equivalent
1. On a Scale of 1 - 4,	3.20	Very Helpful
How do you feel about the		
remote learning modality?		
2. On a Scale of 1 - 4,		Extremely Helpful
How helpful have your	3.32	
School Teachers have		
been in offering you the		
resources to learn from		
Limited Face-to-Face?		

3. On a scale of 1 - 4, How helpful does the Limited Face-to-Face learning method help you to understand the lessons well, especially in specialized subjects like	3.32	Extremely Helpful
ICT?		
Overall	3.28	Extremely Helpful

Prior Knowledge Factors that Impact the Educational Performance of the Respondents in Remote and Face-to-Face Learning Modality.

Based on the gathered data, the result in Table 5 was derived. It shows that the students from 12 TVL PROGRAMMING in PHINMA Upang College of Urdaneta agree with the given indicators along with the Impact the Educational Performance of the

Respondents in Remote and Face-to-Face Learning Modality. They encountered some difficulties in learning Programming while they are on Remote Coaching Learning Method Agree (3.00) They encountered some difficulties in learning Programming they are on Face-to-face Learning Method (2.76) I can gain Quality Knowledge to Improve my Academic Performance with the help of the Limited Face-to-Face Learning modality (3.43).

Table 7

Prior Knowledge Factors Impact the Remote and Limited Face-toFace Learning

Modality

Indicators	AWM	Descriptive Equivalent
1. They encountered	3.00	Agree
some difficulties in		
learning Programming		
while they are on Remote		
Coaching Learning		
Method		
2. They encountered	2.76	Agree

some difficulties in		
learning Programming		
they are on Face-to-face		
Learning Method		
3. I can gain Quality	3.43	Agree
Knowledge to Improve my		
Academic Performance		
with the help of the		
Limited Face-to-Face		
Learning modality.		
Overall	3.06	Agree

Table 8

Contingency Table for Academic Performance of Students in both Learning

Modalities

Academic	With Honors	With High	With	Total
Performance		Honors	Highest	
of Students			Honors	
in both				
Learning				

Honors Received in Remote	Fo	6	6	1	13
Learning Modality	Fe	6.26	5.30	1.44	
	Chi-Square	0.0108	0.0925	0.1344	
Honors Received in	Fo	7	5	2	14
Limited Face-to-Face	Fe	6.74	5.70	1.56	
Learning Modality	Chi-Square	0.0100	0.0860	0.12410	0.2201
Total					27

Table 9
Hypothesis Testing

Academic	X ²	Degrees of	Tabular Value	Descriptive
Performance	(Chi-square)	Freedom		Equivalent
in both				
Learning				
Modalities				

Honors	0.4578	2	5.991	Not Significant
Received in				
Remote				
Learning and				
Limited				
Face-to-Face				
Learning				
Modality				

Tested at 0.05 level of significance

As indicated by the table above, there is no significant difference between the Remote Learning and Limited Face-to-Face Learning Modality in terms of the academic performance of 12- Tvl Programming students because the obtained tabular value 5.991 is greater than the computed chi-square 0.4578 that accepts the null hypothesis using 2 as the degree of freedom.

Thus, this implies that the academic awards that 12- Tvl Programming1 students have received in both remote learning and limited face-to-face learning modality have little to no difference.

Results from the table above implied that there is no significant difference between the limited face to face and remote learning modality with regard to the academic performance of the 12- Tvl Programming1 students.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes the results, draws inferences, and makes recommendations regarding the effects of restricted in-person and online instruction on grade 12 students' academic achievement.

SUMMARY

The central objective of this study is to assess how a student's academic performance in the TVL PROGRAMMING strand at the Phinma Upang College of Urdaneta is affected by restricted face-to-face and remote learning. With an effective survey questionnaire as the instrument, this study employed a descriptive correlational research method to assess the effects of in-person and online learning on grade 12 TvL programming students. The responders to the study were 21 students enrolled in the Grade 12 Tvl Programming strand. To examine the data gathered, the researchers used frequency count, average weighted mean, and person correlation.

SALIENT FINDINGS

The study's conclusions were summarized in the following ways based on the issues raised:

- 1. The survey questions' four sections have an overall computed mean, and the first item, "COMMUNICATION FACTORS IMPACT THE REMOTE LEARNING MODALITY," has an overall mean of 2.91 and a descriptive equivalence of "Very Helpful". As a result, the respondent accepts that Remote Learning Modality has an impact on his or her academic achievement. This indicates that Remote Learning Modality enhances their academic success.
- 2. The second portion of the survey questionnaires, "COMMUNICATION FACTORS IMPACT THE LIMITED FACE-TO-FACE MODALITY," has an overall mean of 3.28 and a descriptive equivalence of "Extremely Helpful," with a total of four parts. This indicates that the respondents acknowledge that Limited Face-to-face Modality has an impact on their academic success.
- 3. The survey-questionnaires have a four-part overall computed mean, and the overall of the third component, "PRIOR KNOWLEDGE FACTORS IMPACT THE REMOTE AND LIMITED FACE-TO-FACE LEARNING MODALITY" is 3.06 with an "Agree" as descriptive equivalence. As a result, the respondent accepts that both Remote and Limited Face-to-Face Learning Modality has an impact on his or her academic achievement.

CONCLUSIONS

Based on the indicated findings, the following conclusions were drawn:

- The findings revealed that most of our respondents, which is 12
 TVL-Programming, were male and were 17 years old and above.
- 2. In accordance with our findings:
 - a. It shows that the students from 12 TVL-Programming find limited face-to-face learning modality is more effective to them than remote learning modality in terms of understanding the lessons well, especially in ICT. They feel that Face-to-face learning is more comfortable and learn more easily.
 - b. The respondents claimed that they can gain Quality Knowledge to Improve their Academic Performance with the help of the Limited Face-to-Face Learning modality.
 - c. According to our findings, they encountered more difficulties in learning programming in terms of their Prior Knowledge while they are on Remote Coaching Learning Modality.
- 3. As indicated by our findings in terms of the Academic Performance, Students in both Learning Modality acquire more achievements (With Honor, With High

Honor, With Highest Honor) in Q1 First Semester while they are on Face-to-Face Learning Modality.

4. There is no significant difference between the Remote Learning and Limited Face-to-Face Learning Modality in terms of the academic performance of 12 TVL-Programming students.

RECOMMENDATIONS

Based on the research study's findings and interpretations, the following recommendations are provided:

- Further studies should use more performance indicators to provide a more in-depth analysis of the performance level of students from both learning modalities.
- In future studies, researchers must put more attention on choosing proper respondents who accurately represent proportions, classifications, and skill levels.
- 3. Conduct additional surveys with a larger sample than what the current study was able to obtain.

BIBLIOGRAPHY

https://www.frontiersin.org/articles/10.3389/fcomp.2019.00007/full

https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-021-02575-1?fbclid=

IwAR26kiJd PnuDzrfaccAulYMiMRfHbj-kDm9T3nQ RsLpIWOfyiYUvw1PZQ

https://journals.sagepub.com/doi/10.1177/0091552115571729

https://www.irrodl.org/index.php/irrodl/article/view/1461

https://journals.sagepub.com/doi/10.1177/875687051203100405?fbclid=lwAR133Q0ygJiGrHRccrNogl3l5EKPrwfk4ofH-JEzkLsYglkQf-qVVwlMZyQ&

https://www.frontiersin.org/articles/10.3389/fcomp.2019.00007/full?fbclid=lwAR08-laB 2iibcD2 vDle0v0oSc0LXAluVNpEMVwoQW8a4DCnUxeQU A5Oq4

APPENDIX A



PHINMA University of Pangasinan College Urdaneta McArthur Highway, Urdaneta City, Pangasinan



Senior High School

October 12, 2022

Marjorie Nova M. Pal, MEd

Principal, Senior High School Department

Phinma Upang College Urdaneta

Dear Ma'am,

Warmest Greetings!

In partial fulfillment of the requirements on our research study in Practical Research, We, The Group 2 Researchers from Grade 12 TVL PROGRAMMING 01 Strand respectively would like to request permission to administer the survey-questionnaire to the Grade 12 PROGRAMMING Students. We are in the process of gathering data from our study, which is the " A Comparative Study Between The Impacts of Limited Face-to-Face and Remote Learning on Students' Academic Performance Among Grade 12 TVL PROGRAMMING 01 students in PHINMA UPang College of Urdaneta ". That's why we are aiming for your permission. We believe that this will help us obtain the information we need for our study. We would greatly appreciate your consent. Thank you, Principal!

Respectfully,	
Baltazar, Rayvhen Clarence	Lamar, Dannah Nicole Madriaga
Braceros, Gilro Rosquita	Rivero, Glester Aguilar
De Vera, Carlo Delos Santos	Rosquita, Alvin Peru
Diamante, Cyrus Aika Mariano	
Noted by:	
Neil Brian G. Agram	
Research Adviser	
Approved by:	
Marjorie Nova M. Pal, MEd	
SHS Principal	

APPENDIX B





PHINMA University of Pangasinan College Urdaneta McArthur Highway, Urdaneta City, Pangasinan

Senior High School

Dear Respondents,

Greetings!

We are the 12 TVL PROGRAMMING 01 students of PHINMA UPANG COLLEGE of URDANETA who are enrolled in the 12- Tvl Programming strand. Presently, we are conducting a study entitled " A Comparative Study Between The Impacts of Limited Face-to-Face and Remote Learning on Students' Academic Performance Among Grade 12 TVL PROGRAMMING Students in PHINMA UPang College of Urdaneta ". In this regard, we are asking for your precious time and effort to answer all the questions in the questionnaire that are important and helpful for the completion of the study. Rest assured that all data gathered from you will be kept at the highest level of confidentiality. Your positive response to this request will be a valuable contribution to the success of the study and will be highly appreciated. Thank you very much for your cooperation.

Lamar, Dannah Nicole Madriaga
Rivero, Glester Aguilar
Rosquita, Alvin Peru

APPENDIX C



Name:



PHINMA University of Pangasinan College Urdaneta McArthur Highway, Urdaneta City, Pangasinan

A Comparative Study Between The Impacts of Limited Face-to-Face And Remote

Learning of Students' Academic Performance Among Grade 12 TVL
PROGRAMMING1 Students in PHINMA UPang College of Urdaneta

(Survey-Questionnaires)

Grade and Section:
Email:
Part I. PROFILE OF RESPONDENTS
Directions: Put a check (/) mark on the space provided to determine your profile on the
following:
A.Sex
Male
Female

B.Age

17 and above

17

17 and below

Part II: IMPACTS OF BOTH LEARNING MODALITY

Directions: Put a check (/) mark on the column of your assessment on the effects and influence of flex learning method using the scale below:

Scale	Descriptive Equivalence	Description
4	Strongly Agree	The respondent strongly agrees to the impact of both learning modalities in his/her educational performance.
3	Agree	The respondent agrees to the impact of both learning modalities in his/her educational performance.
2	Disagree	The respondent disagrees with the impact of both learning modalities in his/her educational performance.

1 Strongly Disagree	The respondent strongly disagrees with the impact of both learning modalities in his/her educational performance.
---------------------	---

Scale	Descriptive Equivalence	Description
4	Extremely Helpful	The respondent finds it Extremely Helpful to his/her academic performance in both learning modalities.
3	Very Helpful	The respondent finds it Very Helpful to his/her academic performance in both learning modalities.
2	Slightly Helpful	The respondent finds it Slightly Helpful to his/her academic performance in both learning modalities.
1	Not Helpful	The respondent finds it Not Helpful to his/her academic performance in both learning modalities.

Indicators	4	3	2	1
Communication Factors Impact the Remote Learning Modality				
On a Scale of 1 - 4, How do you feel about the remote learning modality?				

2.	On a Scale of 1 - 4, How helpful your School Teacher has been offering you the resources to learn from Remote Learning?		
3.	On a scale of 1 - 4, How helpful does the Remote Coaching learning method help you to understand the lessons well especially in specialized subjects like ICT?		
	nunication Factors Impact the ed Face-to-Face Learning Modality		
1.	On a Scale of 1 - 4, How do you feel about the remote learning modality?		
2.	On a Scale of 1 - 4, How helpful have your School Teachers have been in offering you the resources to learn from Limited Face-to-Face?		
3.	On a scale of 1 - 4, How helpful does the Limited Face-to-Face learning method help you to understand the lessons well, especially in specialized subjects like ICT?		
Remo	Knowledge Factors Impact the ote and Limited Face-to-Face hing Modality		
1.	They encountered some difficulties in learning Programming while they are on Remote Coaching Learning Method		
2.	They encountered some difficulties in learning Programming they are on Face-to-face Learning Method		
3.	I can gain Quality Knowledge to Improve my Academic Performance with the help of the Limited Face-to-Face Learning modality.		



APPENDIX D



GROUP 2 SURVEY FORM Total points 0/10 @ Warmest Greetings Respondents!,	1 - Not Helpful 2 - Slightly Helpful 3 - Very Helpful 4- Extremely Helpful	
We are the 12 TVL PROGRAMMING 01 students of PHINMA UPANG COLLEGE of URDANETA. We are conducting a study entitled *A Comparative Study Between The Impacts of Limited Face to Face and Remote Learning of Students Academic Performance Among Grade 12 TVLPROGRAMMING Students in PHINMA UPang College	X On a Scale of 1 - 4, How helpful your School Teacher has been in offering *−/1 you the resources to learn from Remote Learning?	
of Urdaneta". Your response to this request will be a valuable contribution to the success of the study and will be highly appreciated. Thank you very much for your cooperation.	1 2 3 4 Not Helpful O	
Name Example : Rivero, Alvin Braceros	X On a Scale of 1 - 4, How helpful your School Teachers has been in offering you the resources to learn from Limited Face-to-Face? *─/1 X □ The Scale of 1 - 4, How helpful your School Teachers has been in X □ The Scale of 1 - 4, How helpful your School Teachers has been in	
Lamar, Dannah Nicole Madriaga	1 2 3 4 Not Helpful O O O Extremely Helpful	
What honor did you receive Last School Year 2021-2022 in Q1 First Semester?	X On a scale of 1 - 4, How helpful does the Remote Coaching learning *-/1	
With Highest Honor With High	X On a scale of 1 - 4, How helpful does the Remote Coaching learning method help you to understand the lessons well especially in specialized subjects like ICT?	Strongly Agree
With Honor Other:	1 2 3 4 X On a scale of 1 - 4, I have encountered some difficulties in lear Not Helpful	
What honor did you receive This School Year 2022-2023 in Q1 First Semester?	1 2 3 4	
With Highest Honor	X On a scale of 1 - 4, How helpful does the Limited Face-to-Face learning *- method help you to understand the lessons well, especially in specialized subjects like ICT?	Strongly Agree
With High With Honor	1 2 3 4	
O other:	Not Helpful O	
	1 2 3 4 1-Strongly Disagree 2-Disagree	
Email * dama Jamar.up@phinmaed.com	2 - Orange Strongly Disagree Strongly Disagree Strongly Disagree Strongly Disagree	Strongly Agree
Grade and Section *	I can gain Quality Knowledge to Improve my Academic Performance with *-/1 the help of the Remote Learning modality.	
12TvlProgramming1 Genger *	1 2 3 4	
○ Male ● Female	Strongly Disagree Strongly Agree	
Age *	X I can gain Quality Knowledge to Improve my Academic Performance with *−/1 the help of the Limited Face-to-Face Learning modality.	
17 and Above● 1717 and below	1 2 3 4 Strongly Disagree	
1 - Poor 2 - Below average 3 - Good	On a scale of 1 - 4, I have encountered some difficulties in learning Programming while we are on Remote Coaching Learning Method.	
3- Good 4 - Excellent	1 2 3 4	

A. Personal Information

Name: RAYVHEN CLARENCE M. BALTAZAR

Birthday: SEPTEMBER 27, 2004



Address: MINIEN WEST VILLA STA BARBARA PANGASINAN

Email Address: rame.baltazar.up@phinmaed.com

Contact Number: 09318465229

B. Education

Senior High School: PHINMA UPANG COLLEGE URDANETA

High School: GREAT HERITAGE SCHOOL OF STA. BARBARA PANGASINAN

Elementary: GREAT HERITAGE SCHOOL OF STA. BARBARA PANGASINAN

A. Personal Information

Name: GILRO R. BRACEROS

Birthday: APRIL 4, 2005

Address: BRGY. BERSAMIN, ALCALA, PANGASINAN

Email Address: giro.braceros.up@phinmaed.com

Contact Number: 09451761906

B. Education

Senior High School: PHINMA UPANG COLLEGE URDANETA

High School: BERSAMIN AGRO-INDUSTRIAL HIGH SCHOOL

Elementary: BERSAMIN ELEMENTARY SCHOOL

A. Personal Information

Name: CARLO S. DE VERA

Birthday: SEPTEMBER 12, 2004

Address: POBLACION WEST, UMINGAN PANGASINAN

Email Address: cade.devera.up@phinmaed.com

Contact Number: 09278796842

B. Education

Senior High School: PHINMA UPANG COLLEGE URDANETA

High School: QUEZON MEMORIAL ACADEMY

Elementary: IMMACULATE CONCEPTION CATHOLIC SCHOOL

Name: CYRUS AIKA M. DIAMANTE

Birthday: APRIL 19, 2005

Address: BRGY.BOTAO SANTA BARBARA PANGASINAN



Email Address: cyma.diamante.up@phinmaed.com

Contact Number: 09099481871

B. Education

Senior High School: PHINMA UPANG COLLEGE URDANETA

High School: BOTAO NATIONAL HIGH SCHOOL

Elementary: TOLONGUAT ELEMENTARY SCHOOL

Name: DANNAH NICOLE M. LAMAR

Birthday: APRIL 18, 2005

Address: SAN VICENTE ALCALA PANGASINAN

Email Address: coleenmadriaga18@gmail.com

Contact Number: 09062586195

B. Education

Senior High School: PHINMA UPANG COLLEGE OF URDANETA

High School: CIPRIANO P. PRIMICIAS NATIONAL HIGH SCHOOL

Elementary: SAN VICENTE ELEMENTARY SCHOOL

Name: GLESTER A. RIVERO

Birthday: FEBRUARY 16, 2005

Address: BRGY. BERSAMIN ALCALA PANGASINAN

Email Address: glag.rivero.up@phinmaed.com

Contact Number: 09123902360

B. Education

Senior High School: PHINMA UPANG COLLEGE URDANETA

High School: BERSAMIN AGRO INDUSTRIAL HIGH SCHOOL

Elementary: BERSAMIN ELEMENTARY SCHOOL

Name: ALVIN P. ROSQUITA

Birthday: MAY 5, 2005

Address: BRGY. BERSAMIN ALCALA PANGASINAN

Email Address: alpe.rosquita.up@phinmaed.com

Contact Number: 09087177633

B. Education

Senior High School: PHINMA UPANG COLLEGE URDANETA

High School: BERSAMIN AGRO INDUSTRIAL HIGH SCHOOL

Elementary: BERSAMIN ELEMENTARY SCHOOL