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**Test Performance of Grade 9 Students in Economics in the Fourth Quarter in Two Varied
Learning Modalities in the School Year 2020-2021**

An Action Research

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Holy Trinity Academy

Basic Education Department

School Year 2020-2021



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Research Title: Test Performance of Grade 9 Students in Economics in the Fourth Quarter in Two Varied Learning Modalities in the School Year 2020-2021

Abstract:

The COVID 19 crisis adversely affected all sectors in our country. Since it entered the territory of the country, the day to day life of the people greatly changed. The prevalence of the virus particularly in the National Capital Region as the epicenter resulted in the untimely close down of various industries and educational institutions since March 2020.

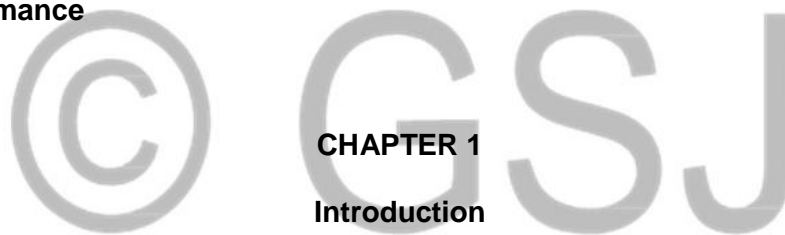
Schools on the other hand suddenly stopped their operations. Teachers and students were prevented from going to school. Face to face meetings were prohibited. Closing activities like graduation and recognition were not implemented as usual but were done virtually. The closing of the school year 2019-2020 was quite challenging because the schools needed to shorten the meetings with the students and asked them to work on activities that can be done and submitted online before the end of the school year.

Meanwhile, the school year 2020-2021 was more challenging for both school administrators, teachers, parents, and students. The opening of classes was hampered by the continuous increase of COVID 19 cases in the country and impositions of various categories of community quarantine in different parts of the country. This research aimed to determine if there was significant difference in the performance of students in two learning modalities such as fully online and home-based learning.

This study was anchored from the theory of connectionism, specifically the law of effect. A quantitative research method was employed in the study. Specifically, a descriptive method of study was used with the intention of describing and comparing the test performance of the students in the fourth quarter summative test. Two groups of students composed of 62 students from fully online and 12 students from home based learning were chosen as participants in this study. The results of the test performance of students in the two learning modalities were compared. Statistical treatment such as frequency, percentage, and t-test were employed.

It was revealed in this research that the students in the home-based learning performed better than the students in the fully online learning modality. Furthermore, it was revealed that there was a significant difference in the test performance of students in Economics in the fourth quarter. This result revealed that the home-based learning helped students to perform well in the summative test. Home-based learning was effective because this helps students to develop independent learning, flexibility, and provides them opportunities to finish their works at their own pace. On the other hand, fully online modality will be more effective if students are fully engaged. Various assessments must be adopted by the teachers to fully form the students. The result of this study is not conclusive. It is recommended that this research must be repeated involving a bigger number of participants especially the students in the home based learning modality to further confirm the result of this research.

Keywords: Economics, Fully online-learning modality, Home-based learning modality, and Test Performance



The COVID 19 crisis adversely affected all sectors in our country. Since it entered the territory of the country, the day to day life of the people greatly changed. The prevalence of the virus particularly in the National Capital Region as the epicenter resulted in the untimely close down of various industries and educational institutions since March 2020. If recalled, during March 15, 2020, the president declared imposition of enhanced community quarantine in the NCR and nearby provinces with the intention of curbing the exponential spread of the virus. All Filipinos were forced to stay in their respective homes for several months. Going out of homes was only intended for buying food and other important things needed at home. Millions of workers stopped working which resulted in the increase of unemployment rate in the country.

According to International Labor Organization there were about 10.9 million Filipinos faced work disruptions due to COVID 19 pandemic (2021)

Schools on the other hand suddenly stopped their operations. Teachers and students were prevented from going to school. Face to face meetings were prohibited. Closing activities like graduation and recognition were not implemented as usual but were done virtually. The closing of the school year 2019-2020 was quite challenging because the schools needed to shorten the meetings with the students and asked them to work on activities that can be done and submitted online before the end of the school year.

Meanwhile, the school year 2020-2021 was more challenging for both school administrators, teachers, parents, and students. The opening of classes was hampered by the continuous increase COVID 19 cases in the country and impositions of various categories of community quarantine in different parts of the country. The usual practice of opening classes in June was not pushed through. School administrators were asked by the Department of Education to create the Learning Continuity plan which served as the blueprint in the operation of the school in the new normal to ensure that learning of students will continue and avoid the possible closure of the private schools particularly. Despite these bold steps undertaken by the government, there are still various problems faced by the country in the opening of classes and during the start of classes. Problems such as poor internet connection on the part of the teachers and the students, limited access to gadgets on the part of the students and teachers, and lack of funds to support the studies and needs of the students in the new normal. To address these problems, the government passed various laws such as Bayanihan Act 1 and 2 to provide funds to support the programs of the government in the economy, health, education, and in the other areas.

Before the opening of classes, teachers underwent various training and workshops so that they can familiarize themselves on how to implement classes in the distance or online set-

up. They equipped themselves with various online meeting applications and how these can be used to effectively implement their classes beyond the four corners of the classrooms and in the confines of their homes and homes of their students. For most teachers, this process was quite challenging. Most of them admitted that they are not adept in the utilization of various platforms and the new normal in education is something new for most of them.

Another challenge faced by the teachers is how to assess the performance of the student whether online and offline. They were also challenged to familiarize themselves with available learning management systems where the teachers and students can easily communicate with one another and instruction can be easily provided by the teachers to the students. Through these LMS, teachers can post and organize lessons to be read and self-paced activities to be done by the students in their respective homes whether online and offline. Other schools asked the teacher to create modules and these were distributed to the students who do not have access to the internet and lack gadgets. Modules were collected by the teachers so that feedback can be provided in the answers of the students.

In the case of Holy Trinity Academy where the researcher is presently connected, the school provided various learning modalities to the students so that their learning needs will be properly addressed in this new normal. The school provides learning modalities for students who have access to the internet and those who have limited access to it. Modules were also prepared by the teachers. The school adopted the Aralinks Learning Management System where teachers can upload the modules and lessons. Teachers can also create various assessments in this LMS and immediately give their feedback to the students. Synchronous and asynchronous activities were provided by the teachers to the students.

To facilitate the online classes with the students, the teacher used google meet and zoom applications. Through these applications, the teachers can discuss the lesson and present their powerpoint to the students regardless of the distance from each other. The challenge in implementing this set-up of this class is how to ensure the stability of the internet connections for both the teachers and students.

In this school year, there are students who chose the learning modalities such as fully online which means that the students will attend the synchronous meeting and access the activities and lessons provided by the teachers in the LMS and home based learning wherein the students will access modules uploaded by the teachers in LMS and they will answer the activities their on their own. Meaning to say, the students in the fully online attend the synchronous meeting on the schedule provided by the teacher and answer the activities provided by the teachers in the LMS. Discussion of the lesson is conducted and students can immediately respond to the questions asked by the teachers. Immediate feedback is also given to the students about their answers.

On the other hand in the home based learning, the students are expected to work independently with minimal supervision of their teachers. The students answer the modules supported with discussion of lessons aligned with the target competencies. In order to address the queries of the students in relation to their subjects, the teachers also utilized the facebook messenger as another mechanism to communicate with the students. Through this, the queries of the students are immediately addressed.

These learning modalities might have an impact on the performance of the students in the test given to them by their teachers. It is for this reason, the researcher conceived this study. He would like to find out if there is a significant difference between the test performance of the students in fully online and home based learning.

Theoretical Framework

The new normal in education creates a kind of learning environment that is uncommon for both the students and the teachers. Since face to face interaction is not allowed in the present time due to prevalence of the COVID 19 virus and to avoid its exponential spread among the people, the schools were compelled to look for doable steps to implement teaching in consideration of the distance and contexts of the students. This research about the test performance of the students in Economics during the fourth quarter in the present school year was anchored from the theory of connectionism. Law of connectionism was developed by

Edward Thorndike. Connectionism is based on active learning. This theory states that learning is achieved when an individual is able to form connections between a particular stimulus and a response. This theory is composed of three laws which refer to law of readiness, law of exercise, and law of effect.

In the case of this research, the law of effect was used. Law of effect explains that responses that produce a satisfying effect in a particular situation become more likely to occur again in that situation, and responses that produce a discomforting effect become less likely to occur again in that situation (Mc Leod, 2018). The researcher believes that the law of effect of connectionism theory is appropriate for this research because the kind of support and online learning environment provided by the teacher to the students who are part of varied learning modalities provide either a positive or negative effect to their performance in the test.

Statement of the Problem

This research entitled test performance of Grade 9 Students in Economics in the fourth quarter in two varied learning modalities in the School Year 2020-2021 aims to answer the following questions:

1. What is the performance of the grade 9 student belonging to fully online and home based learning modalities in the summative test in the fourth quarter?
2. Is there a significant difference in the summative test performance of the students in fully online and home based learning modalities?

Hypothesis of the Study

The null hypothesis presented below is aimed to be answered at 0.05 level of significance.

Ho: There is no significant difference in the summative performance of grade 9 students in fully online and home based learning modalities.

CHAPTER 2

METHODOLOGY

This part of the study presents the method in research used in this study. It also discusses how the participants in this research were selected and the techniques utilized in gathering the data.

Research Method

This research utilized the quantitative method. Quantitative method is used to answer questions about the relationship among the measured variables with the purpose of explaining, predicting, and controlling phenomena. It is an inquiry into social or human problems, based on testing a theory composed of variables, measured with numbers and analyzed with statistical procedure, in order to determine whether the predictive generalizations of the theory hold true. Quantitative researchers see explanations and predictions that can be generalized. These tend to rely on deductive forms of analysis. This type of analysis moves from general to specific (Bueno, 2016).

Specifically this research used descriptive research design. This research purports to present facts concerning the nature and status of anything—a group of people, a number of objects, a set of conditions, a class of events, a system of thoughts or any other kind of phenomena which one may wish to study. It describes what is. It is concerned with conditions of relationships that exist, practices that prevail, beliefs and processes that are going on, effects that are being felt, or trends that are developing.

This action research focuses on determining if there is a significant difference between the test performance of the grade 9 in Economics in two varied modalities during the fourth quarter.

Respondents

The respondents in this are the Grade 9 students of the researcher in Economics. These students are composed of 62 students who were part of the fully online learning modality and

12 students who were part of the home based learning modality. As already mentioned previously, the students in the fully online modality attended in the synchronous meeting conducted by the teachers once a week and the remaining two days are intended for the asynchronous meaning the students will also work on their own. On the contrary, the students in the home based learning worked on their modules they downloaded from the LMS. They answered the modules on their own but they can ask from the teachers some questions if there are aspects in the modules that they do not understand. This study was conducted during the fourth quarter summative test in the school year 2020-2021.

Statistical Treatment

The researcher used mean and frequency to describe the test performance of the students in Economics. Aside from this, t-test was used in order to determine if there is a significant difference in their test performance.

CHAPTER 3 RESULTS AND DISCUSSIONS

1. What is the performance of the students belonging to fully online and home based learning modalities in the summative test in the fourth quarter?

Table 1

Test Performance of the Students in Economics in the Fourth Quarter

Score	FOL	Percentage	HBL	Percentage	Description
	Frequency		Frequency		
26-30	32	52.61	11	91.67	Excellent
21-25	21	33.87	1	8.33	Very Satisfactory
16-20	9	14.52			Satisfactory
Total	62	100	12	100	
Mean	25.45	Very Satisfactory	27.75	Excellent	

Standard Deviation	3.67		2.17		
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Table 1 shows the test performance of the students belonging to varied learning modalities. It can be observed that there are 32 or 52.61 percent of the students from FOL modality who got scores within 26-30. Aside from this, there are 21 or 33.87 percent who got scores within 21-25. Lastly, there are 9 or 14.52 percent who got scores within 16-20. The mean test performance of the students in fully online learning modality is 25.45 or described as very satisfactory. The standard deviation of the mean score of the students in the fully online is 3.67.

Meanwhile, 11 or 91.67 percent of the students in home-based learning modality got scores within 26-30 and there is 1 or 8.33 who got a score within 21-25. The overall mean score of the students in home-based learning modality is 27.75 or described as excellent. The standard deviation of the mean score of the students in the home based learning is 2.17.

These results revealed that both students in varied learning modalities performed well in the fourth quarter summative test in Ekonomiks. However, the students in the home based learning got a higher mean score compared to fully online students. This suggests that the students gave a greater amount of attention to their works. Since, the students in the home based learning answer on their own the modules they can access in the LMS, there is a need for them to read and understand the topics provided in the modules. The students in the home based learning did not attend the synchronous classes because of various reasons. One student in the HBL mentioned that the reason she did not choose the fully online modality is because she is advised by her pediatrician not to be exposed to the radiation of the computer or any gadget. Another student shared that her family only uses one laptop. She can only use it once her sibling is already done in his online class. She accesses the modules in the LMS and downloads them so that they can answer these during her available time. She admits that it is not easy to be in a home based learning. She needs to work on her because it is not at all time

her teachers can respond to her queries about the modules in the messenger. She sees to it that she reads very well all the topics provided in the modules in Economics.

On the contrary, one student who is part of the fully-online class mentioned that he is thankful that he chose this modality because he got the opportunity to attend in the synchronous classes. He shared that he was able to listen to the discussion of the topic and was able to interact with his other classmates. However, he admitted that there are also some problems encountered in the fully online like poor internet connection or sometimes lack of it. This happened for both the teachers and the students. He said that when poor internet connection is encountered there is a tendency that their online class is interrupted or not pushed through. According to him, the teacher used the designated time for asynchronous make-up class.

2. Is there a significant difference in the summative test performance of the students in the fully online and home based learning modalities?

Table 2
Significant Difference in the Summative Test Performance of the Grade 9 Students in Two Learning Modalities

Group	Mean Score	N	STDV	t-value	Tab-value 0.05	Interpretation	Decisions
FOL	25.45	62	3.67	-2.94	1.98	Significant	Reject Ho
HBL	27.75	12	2.17				

Table 2 shows the significant difference in the test performance of Grade 9 students in two learning modalities. It is revealed based on the table that the mean score of students fully online is 25.45 while the mean score of students in home-based learning is 27.75. The t-value is -2.49 which is higher than the tabular value of 1.98 at 0.05 level of significance. This result suggests that there is a significant difference in the test performance of students in the two learning

modalities. The students in the home-based learning performed better in the summative test compared to the fully online students.

The students in the home based learning in Holy Trinity Academy are practicing independent learning. At the start of the classes, they were instructed that they will work independently in answering the modules. The essential topics are provided in the modules with pretest and posttest and guide questions. The students can answer all the assessments provided in the modules once they assure themselves that they read and understand well the lessons provided therein. The students were provided ample time to accomplish the modules and they can answer them in the most convenient time they have. Their parents are their support at home once they have something that they do not understand in the module. On the other hand, the subject teacher sees to it that the line of communication between him and the students is always open through the personal message using facebook chat. The students can ask queries for clarification about the contents of the modules.

This result agrees with the ideas presented in the article in scribd. Com (2020) which explains that modular distance learning has various benefits or advantages. One of the advantages of modular distance learning is its flexibility. The students can set their own schedule in finishing the tasks in the modules. This modality also promotes self-paced learning since this is student-centered. The students will develop a sense of responsibility which is an important attitude to be developed among the 21st century learners. Another advantage of modular distance learning is accessibility. Information is not only taken from the internet sources but the students can also gather information available in the community. They can also seek help and ask information from the people at home who are capable of providing them with significant answers to their queries. To make modular distance learning to be more interesting to the students, the presentation of the lessons must be easily grasped by the students. Therefore, one of the benefits of this modality is its simplified presentation of the lessons. Key points about the lessons in the modules can be provided and highlighted. Teachers can also add supplementary materials like videos and engaging applications by underpinning the links

within the modules. These materials can be accessed by the students on their own and they can answer the questions for reflections. Lastly, modular distance learning is cost efficient. Parents do not need to spend for the transportation of the students. Modules can be downloaded from the learning management system and can be uploaded to the electronic mail of the teachers. This modality will also protect the students from possible infection of viruses because they will stay at home and finish the modules at their own pace.

On the other hand, there are disadvantages in modular distance learning. Helpline Ph (2020) explained some of the disadvantages of this modality. There are students who do not wholeheartedly answer the modules. According to the survey conducted in the country, some students answered the modules for formality sake and do not really imbibe seriously the learning from these materials. Aside from this, there are some parents who spoil their children by answering the modules for them or they hire tutors instead of allowing them to discover or unlock the answers in the modules. Furthermore, there are students who just copy their answers from the other sources without analyzing if these are really appropriate to the questions. Other students admitted that they do not learn in the modular modality especially if they are not assisted by their parents.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

The students in fully online learning modality had a mean score of 25.45 while the students in the home-based learning modality have 27.75 mean score respectively in the fourth quarter summative test. The students in the home-based learning modality performed better than the full online in the said test. It was also revealed that there is a significant difference in the summative test performance of the students in two different learning modalities.

Implication/Reflection and Recommendations

This research revealed that home-based learning really helps students to perform well in the summative test. The said modality helps students to develop independent learning, flexibility, and opportunity for the students to finish the activities in the modules at their own pace. However, these advantages of the home-based learning become possible if the module is prepared, completed, and well-validated at the very start or before the start of classes. The students in the home-based learning must also be properly assisted by the parents at home and by the teacher by means of constant communication through the use of available mechanisms. The parents must make sure that students are provided with opportunities to learn on their own. The teachers must also cross check if the students really absorbed, reflected, and understood very well the lessons and their answers in the modules by providing them with the assessments where they can apply their learnings or authentic in nature.

On the other hand, fully online modality can be more effective to students' learning if the teachers really make sure that the students are fully engaged in the discussion and concept development is focused on during asynchronous classes. The teacher must also provide review prior to the start of the lesson so that previous learning can be strengthened. Various forms of assessments must be used intentionally so that the knowledge and skills of the students will be formed.

The result of this study is not conclusive. It is recommended that this research must be repeated involving a bigger number of participants especially the students in the home based learning modality to further confirm the result of this research.

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