



# A MODEL TEST ON LEARNERS BARRIERS, AND TEACHERS' DIFFICULTIES IN COMMUNICATION-TECHNOLOGY UTILIZATION

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## Abstract

The purpose of this research project, which was given the title "Barriers of Learning Instruction on Academic Performance in the New Normal," was to investigate the effects that the barriers of learning instruction have on learners' academic performance in the new normal. The research made use of quantitative methods, in particular the descriptive correlational design. In order to collect the data for the obstacles of the learning instruction, a survey questionnaire that was created on one's own was employed. The information that was acquired was entered into a spreadsheet, where it was tallied, evaluated, and then interpreted using percentage, mean, and regression.

The majority of respondents were female, according to the socio-demographic profile, the findings of which revealed. Parents of students who were in the class had an average education level of high school or less, and their average age was less than 44 years old. In addition, more than one half of the population of those who responded had a monthly income of between 5,001 and 10,000.

In addition, it was discovered that instructors do not have enough access to the internet, ICT technologies, or facilities that are utilised to broadcast courses. They also agreed that the education environment presented a number of challenges, including making it difficult to do home visits to students who required remediation or help, having problems with the structure of the delivery, and a lack of preparation on the part of the students. On the other side, parents do not actively participate in the education of their children, they lack training and assistance, and that the parents do not accept full responsibility for the education of their children when they are home-schooled. In addition, it was discovered that the level of educational attainment of the learners' parents was directly correlated with the level of the learners' own performance. Additionally, when there is an increase in the utilisation of communication and technology, there is an increase in the performances of the students.

**Keywords:** Barriers of learning instruction, Academic Performance, New normal, Pandemic, Philippines.

## 1. INTRODUCTION

The pandemic of Corona Virus Disease 2019 (COVID-19) caused schools throughout the world to suspend face-to-face classes. There is a paradigm change taking place in the way teachers provide excellent education via various online channels. The sudden shift from face-to-face learning to online and modular learning was an entirely new experience for learners and teachers, to which they had to adjust.

The educational system and teachers have embraced a range of online platforms and are being driven to accept a system for which they are unprepared. Over 60 percent of the world's learners would be affected by the temporary shutdown of educational facilities (Bettinger, Fox, Loeb, Taylor, 2017). To continue the education process, some countries have introduced various tools and learning platforms. According to UNESCO data (2020), the COVID-19 pandemic lockdown had a moderate to severe impact on the training of nearly 96.7 percent of learners.

There has also been evidence of a negative impact on learner progress and success (d'Orville, 2020).

The Philippine government has chosen quarantine procedures and interim cleaning of educational establishments to combat the spread of COVID-19. As a result, nearly 28 million Filipino students at all academic levels must reside at home, which is consistent with the Philippine government's quarantine procedures (d'Orville, 2020). However, despite the government's efforts to develop alternate learning modalities and technology for education delivery, there are still gaps and difficulties that must be addressed. Teachers and administrators were tasked with reviewing and implementing alternate or remote teaching modalities where learners and teachers needed to use technological gadgets and dependable internet connections from the comfort of their own homes. Learners and teachers had restricted access to computers or unstable access to the internet, which hampered

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teaching and learning and resulted in low academic performance of learners (Masic, 2013).

Thus, this study was conducted to explore the barriers of learning instruction within the new normal on the educational performance of learners. It is crucial to have targeted interventions that address these challenges, where the necessity to continuously train skilled teachers is additionally required.

## 2. STATEMENT OF THE PROBLEM

This study focused on determining the barriers of learning instruction in the new normal on the academic performance of learners. Hence, the following research questions were hoped to be answered accordingly:

1. What is the demographic profile of the respondents in terms of age, sex, parents' educational level, and parents' monthly income?
2. What is the level of barriers of learning instruction in terms of:
  - a. Hindrance to communication and technology
  - b. Teachers and learners' adjustment difficulty
  - c. Lack of internal and external support
3. What is the level of academic performance of learners?
4. Does the socio-demographic profile of the respondents significantly influence the academic performance of learners?
5. Does the level of barriers on learning instruction significantly influence the academic performance of learners?

## 3. THEORETICAL FRAMEWORK

Constructivism, this study is anchored on the theory of which believes that learners construct knowledge instead of just passively soak up information. Today our teachers and learners are experiencing challenges like delivery of instruction, lack of coaching, facilities and infrastructures, Instructional Materials (IMs) and more within the new normal. due to this, that they have to show upon those experiences, build their own representations and join new information into their pre-existing knowledge.

Moreover, the concept of constructivism talks about the notion that the planet has sense and meaning, along with this, the researcher wishes to investigate the issues and challenges experienced by teachers within the delivery of learning instruction. Individuals actively create their own meanings through constructing their personal experiences and resolve the conflicts through experiencing the globe (Doolittle, 2017).

Constructivism framework reflects questions that allow participants to share their experiences, particularly the challenges they met within the course of teaching. This also is the basis for understanding the research questions employed; specifically, it intends to answer: (1) what are the barriers met by teachers about the delivery of learning instruction: and (2) how could it possibly affects learners' academic performance? The results will function one among the idea for comprehensive faculty training and development, and blended-based instructional approach enhancement program. Likewise, this may help

institutional academic policy makers to craft concrete plans and policies for blended learning instructions.

## 4. CONCEPTUAL FRAMEWORK

This study presents a framework consists of the independent and the dependent variables. The independent variable is the socio-demographic profile of the respondents in terms old, gender, parents' educational level, parents' employment. It was based on the findings of Ismail, Zhao and Nasoohi, (2018) which states that learners' demographic characteristics such as gender, age, parent's educational status, and income are among the foremost significant factors influencing learning (Tamim, Bernard, Borokhovski, Abrami and Schmid, 2011).

The barriers of learning instruction were also the other independent variable of this study. Heacox, (2012) stated that the barriers to learning are the barriers which stop pupils from achieving their goals. It can be common or maybe a one-off associated to individual pupil. In today's educational situation the most common barriers were the hindrance to communication and technology, teachers and learner's adjustment difficulty and lack of internal and external support. It impacts the educational process in a very unprecedented way, during which the foremost difficult challenge that teachers and learners face is restricted access to the net and supporting tools. The variable quantity is that the academic performance of learners.

The study conceptualized the direct influence of the socio-demographic profile and the level of barriers on learning instructions on learners' academic performance.

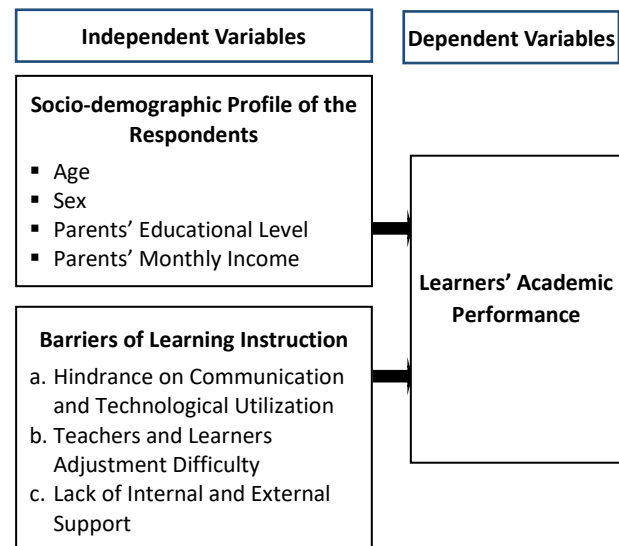


Figure 1 Schematic presentation of the independent, dependent variables of the study

## 5. RESEARCH DESIGN

This study employed a quantitative approach (Creswell, 2010), specifically descriptive-correlational research design. Descriptive methods are commonly used to reveal the respondents' socio-demographic profile in terms of age, gender, parents' educational level, and parents' monthly income; barriers on learning instructions; and the degree of educational performance of public-school pupils. Correlational method (Cohen, 1988) was used to determine the influence of barriers on learning instruction on academic performance.

## 6. DATA GATHERING METHODS

The researcher established protocols in data gathering. The researcher first prepared a letter request for the conduct of the study to be noted by her adviser and the Dean of the Graduate School of Cotabato Foundation College of Science and Technology. This letter was then transmitted to the Division Office of Kidapawan City for the approval of the Schools Division Superintendent. After its approval, the researcher sent copies of the approved letter to the concerned Public Schools District Supervisors and School heads for their information regarding the conduct of the study in their areas of responsibility.

Before, the survey questionnaire was administered to the teacher-respondents, the researcher conducted a quick orientation through online and other platforms. That the questionnaires were personally delivered by the researcher to the residences of the respondents. All the said activities were undertaken following health and safety protocols. Finally, the researcher personally gathered the questionnaires, collated and tabulated the results.

## 7. PARTICIPANTS OF THE STUDY

The respondents of this study were grade 6 public school teachers within District II under Kidapawan City Division School Year 2020-2021.

Table 1 List of Grade 6 Elementary Teachers

Name of Schools- District II Elementary Schools	Number of Respondents-Grade 6 Teachers
Sibug MES	3
Sumayahon ES	1
Manongol CES	3
Ginatilan ES	3
Mua-an ES	3
Lake Agco IS	2
Perez ES	2
Lapan ES	1
Sayaban ES	3
Gulanay Maangue ES	2
Meohao ES	2
Balabag ES	1
Cayetano A. Javier MES	2
Datu Ambas IPS	1
Datu Igwas IP-IS	1
Total	30

### Statistical Tools and Data Analysis

Percentage, mean standard deviation and linear regression were used to determine the results of this study. Percentage (Dakers, 2015) was used to determine the socio-demographic profile of the respondents. Mean (Cochran, 1977) was used to describe the level of the barriers of learning instruction in the new normal and the level of pupils' academic performance. Linear regression (Freedman, 2009) was utilized to determine the influence of the demographic profile of the respondents well as for the influence of the level of learning barriers on academic performance.

## 8. RESULTS AND FINDINGS

### Summary of Results and Discussions

#### Research Problem No. 1

The demographic profile of the respondents in terms of age, sex, parents' educational level, and parents' monthly income.

##### a. Gender

In the total number of respondents, there were 26.67 percent male and 73.33 percent female. This implies that most of the respondents were female.

##### b. Parents' Educational Level

In terms of parents' educational level, 30.00 percent were high school graduate while 28.33 percent were high school level. Furthermore, 15.00 percent of the respondents were college level, whereas 11.67 percent were elementary graduate. Moreover, 6.67 percent were college graduate, 5.00 percent falls to others and the remaining 3.33 percent were elementary level respectively. This implies that the learners' parents were mostly high school graduate or high school level. This further implies that some parents have reach college level, but only few were college graduate, elementary level, and elementary graduate.

##### c. Age

In the age bracket, 35.00 percent were 33-38 years old while 23.33 percent were 39-44 years old respectively. Furthermore, 21.67 percent of the respondents were 26-32 years old, whereas, 16.67 percent were 45-50 years old, and lastly, 3.33 percent were 51 and above years old respectively. The result implies that the parents were mostly 44 years old and below.

#### Monthly Income

In the aspect of respondent's monthly income, 51.67 percent have a monthly income of Php5,001 to 10,000, while 28.33 percent have a monthly income of Php10,001 to Php15,000, whereas 10.00 percent have a monthly income of Php5,000 and below, furthermore, 6.67 percent have a monthly income of Php15,001 to Php20,000, and lastly 3.33 percent have a monthly income of Php20,001 and above. This implies that more than one half of the respondent's population were earning Php5,001 to 10,000 a month.

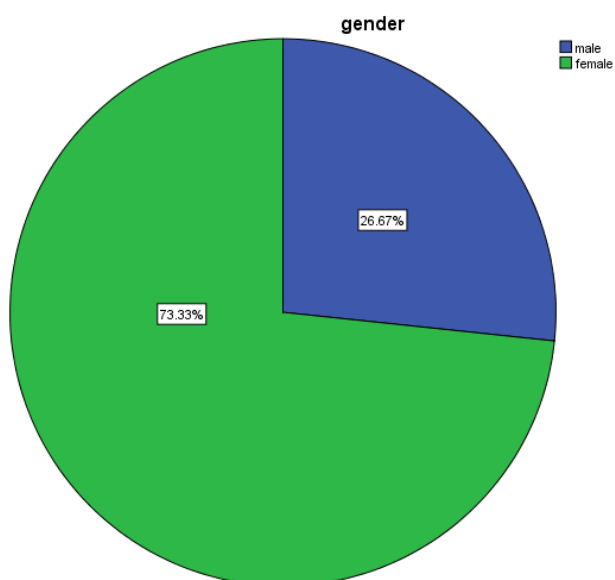


Figure 2 Gender

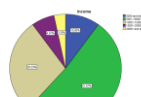


Figure 5 Age

Research Problem No. 2

Level of barriers of learning instruction in terms of hindrance to communication and technology, teachers and learners' adjustment difficulty, and lack of internal and external support.

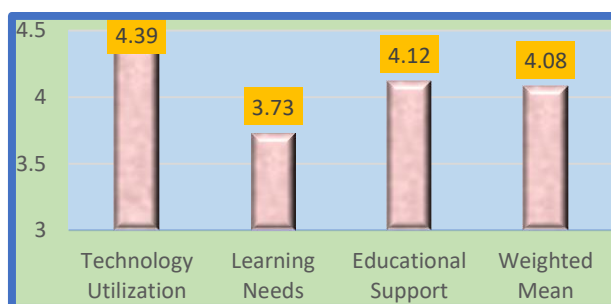


Figure 3 Parents' Educational Level

Level	Range	Description
5	4.50 – 5.00	Strongly Agree
4	3.50 – 4.49	Agree
3	2.50 – 3.49	Moderately Agree
2	1.50 – 2.49	Disagree
1	1.00 – 1.49	Strongly Disagree

Research Problem No. 3

Table 2 Level of academic performance of learners

	Mean	Std. Deviation	Description
First grading	84.79	2.24	Very Satisfactory
Second grading	85.46	2.60	Very Satisfactory
Mean	85.12	2.34	Very Satisfactory

Range	Description
90.00 – 100.00	Outstanding
85.00 – 89.00	Very Satisfactory
80.00 – 84.00	Satisfactory
75.00 – 79.00	Fairly Satisfactory
Below 75	Did Not Meet Expectations

This part shows the level of academic performance of learners in First and Second Grading in the New Normal Education, which got a mean of 85.12 and SD of 2.34 described as very satisfactory. On first grading, the learners' academic performance got a mean of 84.79 and SD of 2.24 described as very satisfactory. Second grading got a mean of 85.46 and SD of 2.60 also described as very satisfactory. The result implies that despite pandemic and the barriers of learning instruction, the learners were still able to maintain a very satisfactory grade.

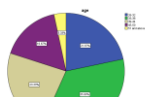


Figure 4 Age

Research Problem No. 4

Table 3 Influence of socio-demographic profile of the respondents on the academic performance of learners

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	SE	Beta			
1	(Constant)	82.274	1.479		55.626	0.000
	Age	-0.035	0.039	-0.098	-0.907	0.368
	gender	-0.360	0.525	-0.069	-0.686	0.496
	HEA	0.799	0.307	0.473	2.601	0.012
	Income	0.000	0.000	0.287	1.566	0.123

a. Dependent Variable: learners perf

\*\*=significant at 5% level of significance

R<sup>2</sup> = 0.479; F (4, 55) = 12.618; P-Value =0.000

It is shown in the table that the overall regression model is significant, F (4, 55) = 12.618, p<.05. It means that the profile of the respondents when taken as a group significantly influence learners' performance. Thus, the null hypothesis which states that profile of the respondents does not significantly influence learners' performance is rejected. Result further revealed that the predictive power of the respondents' profile on learners' performance is 47.9% based on the R<sup>2</sup> which is .479. This means there is almost 52% of the variables not included in this regression model.

When each variable is looked into individually, only Highest Educational Attainment of parents significantly influence learners' performance while other variables such as age, gender and income did not significantly influence learners' performance. In could be gleaned on the table that in every unit increase of parent's educational attainment, there is a corresponding increase in learners' performance by .799 unit considering other variables constant.

Table 7 shows the influence of the level on the academic performance of learners.

It is shown in the table that the overall regression model is significant, F (3, 56) = 22.398, p<.05. It means that the barriers in learning instruction when taken as a group significantly influence learners' performance. Thus, the null hypothesis which states that barriers do not significantly influence learners' performance is rejected. Result further revealed that the predictive power of the barriers in learning instruction on learners' performance is 54.5% based on the R<sup>2</sup> which is .545. This means there is 45.5% of the variables not included in this regression model.

Research Problem No. 5

Table 4 Influence of socio-demographic profile of the respondents on the academic performance of learners

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	SE	Beta			
1	(Constant)	96.829	1.512		64.032	0.000
	FactorA	-2.038	0.592	-0.559	-3.443	0.001
	FactorB	0.007	0.417	0.002	0.016	0.988
	FactorC	-0.674	0.488	-0.216	-1.382	0.173

a. Dependent Variable: learners perf

\*\*=significant at 5% level of significance

R<sup>2</sup> = 0.545; F (3,56) = 22.398; P-Value =0.000

When each variable is looked into individually, only hindrance on communication and technology utilization significantly influence learners' performance while other variables such as learners' difficulty in new normal learning and lack of internal and external support did not significantly influence learners' performance. It could be further observed from the table that the relationship between hindrance on communication and technology utilization and the learners' performance is negative. This means that in every unit increase in the hindrance on communication and technology utilization, there is a corresponding decrease in learners' performance by 2.038 units considering other variables constant.

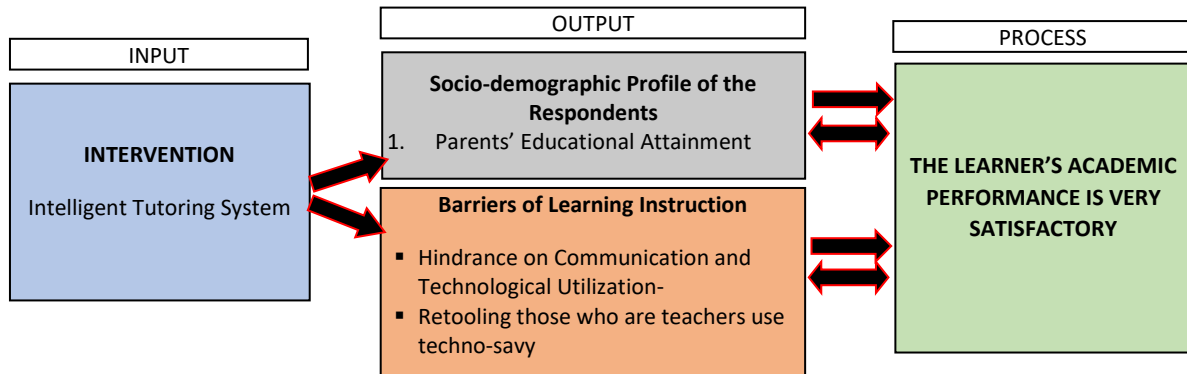
9. CONCLUSIONS

Based on the findings and analysis of this study, it is concluded that the teachers have experienced difficulties in communication technology utilization, teacher and learner adjustment, lack of internal and external support were not properly addressed. Despite these barriers, learners were still able to maintain good grades. Moreover, the higher educational attainment of parents the higher are the academic performance of learners. The lower the level of barriers in learning instruction the higher is the learners' academic performance or the higher the level of barriers in learning instruction, the lower will be the learner's academic performance.

10. RECOMMENDATIONS

Supported by the findings and conclusions, this study offers the subsequent recommendations:

1. Parents' socio-demographic profile in terms of highest educational attainment has influenced the academic performance of learners, within which can be recommended that the teachers must help parents within the learning process of their children.
2. Teachers may religiously attend to seminars and training with regards to the new teaching pedagogies, so that they might adjust themselves as they meet barriers to learning instruction.
3. The Department of Education may design and implement projects and programs that would reduce the barriers in terms of communication and technology utilization, teachers and learners' adjustment.
4. The national government together with other non-government agencies may in
5. The modified framework of the study shows the overall result of the study. On the socio-demographic profile of the respondents, only parent's educational attainment has significantly influence students' academic performance. In connection with this, parents must be well educated. Also, in terms of the barriers of learning instruction only hindrance on communication and technology utilization has significant influence on students' academic performance. Hence intelligent tutoring system is an intervention to use to address the said barriers to improve academic performance of learners.



*Figure 6 Modified Framework*

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