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## PERCEPTION ON THE USE OF DIGITAL APPLICATION AND STUDENTS' PERFORMANCE

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### KeyWords

*Video Recorded Lesson; Google Form; Messenger (GC); Perception; Digital Tools*

### ABSTRACT

The aim of this study was to determine the students' perception on the use of digital application in terms of Google Form, Video Recorded Lesson and Messenger, the level of Academic Performance of the Grade 9 students and the significant relationship between the students' perception on digital application and students' academic performance. The survey was conducted to 200 Grade 9 students in the four schools East 1 District of Cagayan de Oro City Division namely: Lapasan National High School, East Gusa National High School, Regional Science High School and Cugman National High School, selected through stratified random sampling. The 4-point Likert researcher-made questionnaire which underwent validity and reliability testing was used as the main data-gathering instrument and the academic performance of the respondents. Findings revealed that students are Satisfied with the use of the Digital Application in their classes. Most have Very Satisfactory Academic Performance and there is a Significant Relationship between the use of Digital Applications and Academic Performance. It can be concluded that Digital Application is a great help for better academic performance. It is recommended that a training of teachers to enhance the making of Video Recording Lessons and expansion of provisions of digital tools and stronger Internet connections by the Department of Education will be beneficial.

## INTRODUCTION

The idea of using technology in the teaching and learning process is not a new one in today's world. The rapid changes on development of technology affects the entire life of the society as well as in the educational system. The typical face-to-face teaching and learning method in the classroom was no longer appropriate during the pandemic and serves as a partner that could help and improve the quality of education. The abrupt integration of digital caused many challenges due to on their different individual's perception and background.

Students, parents, and educators around the world have felt the unanticipated wave impact of the COVID-19 epidemic since schools have been suspended to deal with the global pandemic. While educational systems strive to provide high-quality education to all students during these tough times. Many students have experienced psychological and emotional hardship at home/living environment and have been unable to interact successfully. The greatest online home-schooling techniques have yet to be discovered (Tangan, 2022).

DepEd Order No.018, s.2020 about " Policy Guidelines for the Provision of Learning Resources in the Implementation of the Basic Education Learning Continuity Plan (BE – LCP), stipulated to employ multiple Learning Delivery Modalities (LDMs) to ensure the continued provision of learning opportunities to its learners, while protecting the health and safety of both its personnel and learners. Blended learning, distance learning, and home schooling are all options. Thus, East 1 District of Division of Cagayan de Oro City, Modular Distance Learning was widely implemented.

Modular Distance Learning modality is in the form of individualized instruction that allows learners to use Self-Learning Modules (SLMs) in print or digital format/electronic copy, whichever is applicable in the context of the learner and other learning resources such as Learner's Materials, textbooks, activity sheets, study guides, video recorded lesson, Google Form and other study materials.

Hence, there are lots of issues and challenges encountered of the students in Modular Distance Learning modality such as students are having difficulty accomplishing in their activity, some learners cannot immediately receive feedbacks from the teachers regarding on the clarification to the lesson, lack of knowledge in understandings the lesson, self –studying is poor, lack of sleep and time due to of ample activities, and lack of focus (Ratnawati, 2018).

According to Talimodao et al., (2021), any students worry about the difficulty in communicating ideas in the lesson that become student behind and having anxiety and less motivated during distant learning. Students struggle to complete some modules since the directions and explanations are unclear and cause poor retention to the content of the subject. The answer lines are too brief, and the module visuals are not clear that may lead them to skip and fail to answer. Amidst pandemic, utilizing technology was not easy for both teachers and students due to unfamiliar with the internet tools and resources they can utilize and as well as which strategies to employ. The instructors' advanced age, lack of technology-related abilities, and worry about their health and that of their loved ones were all blamed for the challenges they faced. Otherwise, learners may also had struggle adapting due to a lack of financial resources and, in some cases, numerous siblings used one computer and shared same room in attaining the process of learning (Joseph & Trinick, 2021).

However, Nguyen et al., (2021), suggested that integrating digital tool has an advantage the process of the learning. Likewise, requires a massive training to the teachers on how to use and adapt the new trend of technologies to make the teaching and learning process become more efficient and more productive as well as students' perception on the technology matters the most for the effective learning to happen.

Furthermore, the current scenario poses a significant difficulty for both teachers and students, particularly in terms of transferring knowledge in the subject. Moreover, as the mode of instruction continued, the researcher found out that the low performance of the students in subject is still evident. Others have no answers and leave it blank that causes of having low score in subjects. It is indeed a real scenario in our very own school. Thus, the aim of the study is to know the students' perception on the use of digital application and their performance.

## Theoretical Framework and Conceptual Framework

The study was anchored on the Downes' Theory of Connectivism (2022) that knowledge is defined as a network that grows and develops from interactions with other entities in the network and in the world at large, rather than as content that is passed from person to person. The goal of teaching is to encourage such relationships, which is accomplished by modelling and showing the appropriate activity as cited by Harsasim (2019) that Information, Communication Technology (ICT) and integration of digital technologies, learners are actively encouraged to develop and implement effective knowledge: to discover, explore new and creative ways, and, while doing so, actively explore the foundational knowledge required to solve challenges. It helped develop to be motivated and participated on the development of learning, and also teacher plays a very important role as the center stage of knowledge.

Aligned to the DepEd Order No.018, s.2020 about " Policy Guidelines for the Provision of Learning Resources in the Implementation of the Basic Education Learning Continuity Plan (BE – LCP), that learning resources such as text – based and non- text based (digital, tools, equipment and other manipulative toys) served as learning toolkits for learners where procedures, instructions and other details are provided to aid the learning process under the supervision of responsible adults along with the continuous monitoring of the teachers.

Thus, the study's conceptual framework proposed the parameters for determining the association between students' perceptions on the digital use such as Video Recorded Lesson (VRL), Google Form, Messenger (GC) and their performance as categorized by outstanding, satisfactory, fairly satisfactory, and did not meet the expectations.

## Methodology

The researcher used quantitative approaches to conduct this study. The researcher sought to determine answers to the aforementioned problems as well as justified and realized the study's objectives. Similarly, the relationship between students' perceptions in using Digital Application and their performance on Grade-9 Mathematics was being studied. Quantitative research methods are concerned with gathering and analyzing structured data that can be represented numerically. One of the main aims is to generate accurate and reliable measurements that allow statistical analysis. Quantitative research investigates and assesses the measurement that can be used to quantify and offer evidence for the stated variables. Likewise, involves computational, statistical and mathematical ways to use in deriving a certain result.

The settings of this study were the 4 schools in East 1 District Schools of Cagayan de Oro City, Misamis Oriental. The East 1 District composed of four (4) schools namely; Lapasan National High School, East Gusa National High School, Regional Science High School and Cugman National High School.

Lapasan National High School has a total population of 504 Grade 9 students located at Barangay Lapasan, Cagayan de Oro City. This school is popular on performing different kinds of talents and best on Journalism. Furthermore, won many competitions especially in the field of academics.

Moreover, East Gusa National High School has a total population of 447 student on the Grade 9 level located at Barangay Gusa, Cagayan de Oro City. This school is known on winning different competitions and the administrators and Staffs as well as their students are very well trained. The school also are on the top 10 during the POPDEV quiz contest.

Cugman National High School has a total population of 450 Grade 9 students and located at Barangay Cugman, Cagayan de Oro City. Gusa National High School - Cugman Annex was founded last June 1995 with the very first ever Principal Mrs. Myrna L. Mandawe. For now, it has 48 teachers in all & 1,300+ students with the present School Head Mr. Elizer O. Teruel, now Cugman NHS. The said school is still famous on performing various skills and talents. Lastly, the Regional Science High School Grade 9 level comprises of 196 students located at Barangay Gusa, Cagayan de Oro City. The school are very popular on creating more research studies and won on different kind of research.

The schools in East 1 District are using the variables in this study. They give quizzes and other tasks through Google Forms. Teachers are sending Video Recorded Lessons in their respective Group Chats or Messengers. Each subject has their own Group Chats to update students regarding the schedule of getting and returning modules, the activities posted in the Google Forms or for the Video Recorded Lessons. Students can also ask questions or have discussions in the Group Chats or Messengers.

The respondents of the study were limited to the East I District of Cagayan De Oro City particularly in the selected Grade 9 students. Stratified random sampling method was used to select the respondents of the study due to the fact that it was extremely timely and costly. The chosen respondents were two hundred (200).

**Table A**

*Sampling Procedure of the Respondents*

East I District Schools	Population of Grade 9 level	Stratified Random Sampling results
Lapasan National High School	504	63
East Gusa National High School	447	56
Regional Science High School	196	25
Cugman National High School	450	56
<b>TOTAL POPULATION</b>	<b>1,597</b>	<b>200</b>

The 4-point Likert questionnaire was used as the main data –gathering instrument and the performance grade of the selected respondents in Grade 9 level. This was a researcher-made questionnaire which underwent validity and reliability testing. This questionnaire was distributed to the respondents through a Google Form. The data collection device was set up on a scale of 1 to 4. Where (4) indicates Strongly Agree, (3) indicates Agree, (2) indicates Disagree, and (1) Strongly Disagree. This legend aided the researcher in analysing the results of data collection. The grade of students' performance mainly refers to how well they answered and completed their work and studies as demonstrated by grades: Outstanding (90% - 100%), Very Satisfactory (85% - 89%), Satisfactory (80% - 84%), Fairly Satisfactory (75 % -79%), Did Not Meet Expectations (Below 75%).

The researcher asked the permission to the Dean of Graduates Studies to allow to continue the research entitled "Perception on the Use of Digital Application and Students' Performance. And allow to use the researcher made questionnaire. After the approval

of the Dean of Graduates Studies researcher asked permission from the School's Division Superintendent from the Cagayan de Oro City Division to allow the researcher to conduct the survey. Once approved, the researcher asked the Public Schools District Supervisor to allow to conduct a study to the schools of East I District Schools. Lastly, once approved the Public Schools District Supervisor researcher have now submitted a letter to the school head of the schools of East I District to conduct the survey to the selected Grade 9 students.

After evaluating the validity and reliability of the data collection method, developing appropriate study questions, and making any necessary revisions to the chosen respond, the information gathered was categorized and tallied based on the results of the statistical analysis. The 4 point likert questionnaire was distributed to the selected respondents through Google Form. The respondents answered the questions based on choices as Strongly Agree, Agree, Disagree, and Strongly Disagree. The data gathered was used in finding the Mean and Standard Deviation, Frequency distribution, and relationships between the students' perception on the use of digital application and the performance of the Grade 9 students.

The following are the categorization of Variables:

**Table B Students' Perception on the Use of Digital Application**

<i>Scale</i>	<i>Range</i>	<i>Description</i>	<i>Interpretation</i>
4	3.25 - 4.00	Strongly Agree	Strongly Satisfied
3	2.50 – 3.24	Agree	Satisfied
2	1.75 - 2.49	Disagree	Dissatisfied
1	1.00 - 1.74	Strongly Disagree	Strongly Dissatisfied

**Table C Students' Academic Performance (DO no.08 s.2015)**

<i>Scale</i>	<i>Grades</i>	<i>Description</i>
5	90%and above	Outstanding
4	86%-89%	Very Satisfactory
3	80%-85%	Satisfactory
2	75%-79%	Fairly Satisfactory
1	74% and below	Did not meet expectation

In this study, the researcher used the following statistical approach to analyze and interpret the data.

Mean and Standard Deviation were the total of a set of data divided by the number of data is called the mean. When comparing multiple sets of data, the mean can be a useful tool. A Standard Deviation (SD) is a measure of how dispersed the data is in relation to the mean. Low standard deviation means data are clustered around the mean, and high standard deviation indicates data are more spread out.

Frequency, Percentage and Ranking are a display of data that indicates the percentage of observations for each data point or grouping of data points. It is a commonly used method for expressing the relative frequency of survey responses and other data. Pearson Product Moment Correlation Coefficient is the test statistics that measures the statistical relationship, or association, between two continuous variables. It is known as the best method of measuring the association between variables of interest because it is based on the method of covariance. It gives information about the magnitude of the association, or correlation, as well as the direction of the relationship.

## Results and Discussions

**Problem 1.** What is the Students' Perception on the Use of Digital Application in terms of?

- 1.1 Google Form;
- 1.2 Video Recorded Lesson;
- 1.3 GC or Class messenger.

**Table 1**

*Use of Digital Application in terms of Google Form*

Indicators	Mean	SD	Interpretation
I am inspired to complete every activity with the use of Google Form.	3.09	0.65	Satisfied
I enjoyed answering the questions using Google Form.	3.22	0.70	Satisfied
The concept of the lesson is more appealing via Google Form.	3.13	0.68	Satisfied
I can easily adapt the lessons with the use of Google Form.	3.25	0.80	Strongly Satisfied
Google Form helped me to figure out my incorrect answers right away.	3.24	0.78	Satisfied
I can perform well on the activities via Google Form.	3.20	0.74	Satisfied
<b>Overall Mean</b>	<b>3.19</b>	<b>0.73</b>	<b>Satisfied</b>

**Note:** 3.25-4.00 Strongly Satisfied; 2.50-3.24 Satisfied; 1.75-2.49 Dissatisfied; 1.0-1.74 Strongly Dissatisfied

Table 1 presents the students' perception on Digital Application based on Google Form. It has an overall Mean of 3.19 (SD=0.73) described as Agree and interpreted as Satisfied. This means that Google Forms made the class more appealing, and the students were satisfiably motivated to work more and learn more.

The indicator, "I can easily adapt the lessons with the use of Google Form" got the highest Mean of 3.25 (SD=0.80) described as Strongly Agree and interpreted as Strongly Satisfied. This means that students are more likely adapt to the lesson because it is more appealing and interesting. It also helped the students to figure out the incorrect answers right away. Definitely, Google Form provides an encouragement to the learners to continue to learn and explore more towards the subject. This digital application helps the students to monitor their weaknesses and strengths that lead them to do further and increase their level of improvement to master the concept of the subjects.

On the other hand, the indicator, "I am inspired to complete every activity with the use of Google Form" got the lowest Mean of 3.09 (SD=0.65) described as Agree and interpreted as Satisfied. Students are inspired to complete every activity with the use of Google Form. Similarly, Kalnow et.al (2019) found out that using Google Forms allows learners to interact and can independently do the task. It provides assistance in the communication of both teachers and students.

**Table 2**

*Use of Digital Application in terms of Video Recorded Lessons*

Indicators	Mean	SD	Interpretation
I am motivated to learn more knowledge with the use of Video Recorded Lesson (VRL).	3.26	0.67	Strongly Satisfied
I find it enjoyable to watch Video Recorded Lesson (VRL).	3.19	0.65	Satisfied
Video Recorded Lesson (VRL) enhanced my level of engagement in doing activities.	3.19	0.64	Satisfied
Video Recorded Lesson (VRL) helped me to improve my retention in acquiring the concept of the subject.	3.20	0.60	Satisfied
Video Recorded Lesson (VRL) makes me comfortable in practical skills.	3.13	0.62	Satisfied
Video Recorded Lesson (VRL) improves performance in doing activities.	3.12	0.65	Satisfied
<b>Overall Mean</b>	<b>3.18</b>	<b>0.64</b>	<b>Satisfied</b>

**Note:** 3.25-4.00 Strongly Satisfied; 2.50-3.24 Satisfied; 1.75-2.49 Dissatisfied; 1.0-1.74 Strongly Dissatisfied

Table 2 tells the perception of the students regarding the use of Video Recorded Lessons. It has the Overall Mean of 3.18 (SD=0.64) which described as Agree and interpreted as Satisfied. This means that students enjoy watching Video Recorded Lesson and enhance their level of engagement in doing activities. It also shows that the learners are comfortable doing practical skills and increased their level of retention towards the concept of the subject.

The study also reveals the highest Mean of 3.26 (SD=0.67) described as Strongly Agree and interpreted as Strongly Satisfied

to the indicator, "I am motivated to learn more knowledge with the use of Video Recorded Lesson (VRL)". This means that students are very satisfied and motivated to learn more knowledge using the Video Recorded Lesson. Moreover, the students' acquisition of the subject's notion was made possible by this digital application. According to Kaynar et al., (2021), most learners expressed satisfaction with the usage of genuine interactive video activities, which improved learning. Video resources increased students' engagement and assisted them in understanding concepts, which had a positive impact on their performance. Video Recorded Lessons in classes are a useful tool on both teaching and learning process.

It also displays the lowest Mean of 3.12 (SD=0.65) described as Agree and interpreted as Satisfied. It is the indicator, "Video Recorded Lesson (VRL) improves performance in doing activities." Based on this result, the students are satisfied to do and perform their activities although few of the learners are not favored due to significant reason such as not having their own cellphones, and other technological gadgets (Joseph & Trinick, 2021). Yet, still embraced and find possible ways to use the digital application as a reference to acquire and understand the concept of the subjects. Few of them borrowed and shared from their classmates or neighborhood for the sake of completing their respective individual task.

**Table 3**  
*Use of Digital Application in terms of Messenger (GC)*

Indicators	Mean	SD	Interpretation
I have an easy access to receive useful and helpful feedback regarding my performance.	3.16	0.66	Satisfied
It gives me an opportunity to express my doubts and thoughts in chat with my teachers.	3.16	0.65	Satisfied
I am updated with my lessons because of Group Chat (Messenger).	3.23	0.62	Satisfied
I can ask clarification to the lessons in the Group Chat (Messenger).	3.17	0.64	Satisfied
The teacher gives clear instruction in our assessment in the Group Chat (Messenger)	3.27	0.68	Strongly Satisfied
Messenger provides timely feedback on my performance in the activities.	3.15	0.65	Satisfied
<b>Overall Mean</b>	<b>3.19</b>	<b>0.65</b>	<b>Satisfied</b>

**Note:** 3.25-4.00 Strongly Satisfied; 2.50-3.24 Satisfied; 1.75-2.49 Dissatisfied; 1.0-1.74 Strongly Dissatisfied

As shown in Table 3, it has the Over All Mean of 3.19 (SD=2.65) described as Agree and interpreted as Satisfied. It implies that Messenger increased students' access on the information regarding on their daily activities. It also found out that Messenger is one of the Digital Applications use to receive helpful and useful feedbacks and an avenue to express students doubts and thoughts to their teachers

The study also reveals the highest Mean of 3.27 (SD=0.68) described as Strongly Agree and interpreted as Strongly Satisfied. It is the indicator, "The teacher gives clear instruction in our assessment in the Group Chat (Messenger)". messenger provides clarification to the students since they have access to be more updated to the lessons. It contributes a big help to the class especially in giving instruction to the learners. This means that students very satisfied and comfortable on asking and receiving updates from their teachers regarding their assignment and other related activity.

The indicator, "Messenger provides timely feedback on my performance in the activities", has the lowest Mean of 3.15 (SD=0.65) described as Agree and interpreted as Satisfied. Tang (2022) revealed that using Facebook Messenger increase students' intimacy and interpersonal interactions, which is the key reason why they are driven to participate in modular distance learning. Learners are informed better on the information given by their teachers, and the teachers can more readily keep an eye on their students as they engage in different activities. Their engagement and interaction in understanding the lesson material improved.

**Table 4**  
*Overall Perception on the Use of Digital Application*

Digital Application	Mean	SD	Interpretation
Google Form	3.19	0.73	Satisfied
Video Recorded Lesson	3.18	0.64	Satisfied
Messenger (GC)	3.19	0.65	Satisfied
Overall Mean	3.19	0.67	Satisfied

**Note:** 3.25-4.00 Strongly Satisfied; 2.50-3.24 Satisfied; 1.75-2.49 Dissatisfied; 1.0-1.74 Strongly Dissatisfied

Table 4 presents the overall Mean result of the students' perception on the use of Digital Application. It has an overall Mean of 3.19 (SD=0.67) interpreted as Satisfied. It implies that students are Satisfied with the Digital Applications used in their classes

specifically the Google Form, Video Recorded Lesson and Messenger. It means that using Digital Application provides the students to complete their daily activities and perform their tasks easily. These have great connection to improve students' performance. It provides an interactive strategic tool to enhance the quality of education.

Table 4 further reveals that Google Form and Messenger had the highest Mean of 3.19 (SD=0.73, SD=0.65) interpreted as Satisfied. This means that Google Form and Messenger contribute a great impact and connection in their studies. In fact as of today, Messenger and Google Form are common digital application that are widely use in the teaching and learning process. These two applications can be a way of monitoring the attendance and updating the students on their studies. Regardless of the absence of face-to-face instruction the learners can still communicate their teachers as well as the teachers can directly receive feedback and answer queries of the students. More likely, the use of both digital application breaks the wall of rejection and gap of both teachers and students.

Among the three variables, Video Recorded Lesson has the lowest mean of 3.18 (0.64) but still interpreted as Satisfied. It shows that students are also Satisfied on the use of Video Recorded Lesson as a learning toolkit as a reference supplementary material to increase students' level of engagement and interest to acquire knowledge towards the subject.

**Problem 2.** What is the students' performance in Grade 9 levels when categorized according to?

- 2.1 Outstanding;
- 2.2 Very Satisfactory;
- 2.3 Satisfactory;
- 2.4 Fairly Satisfactory; and
- 2.5 Did not Meet Expectations

**Table 5**

*Students' Academic Performance*

Level of Academic Performance	F	P	Mean	SD	Interpretation
Outstanding	48	24%	86.39	3.81	Very Satisfactory
Very Satisfactory	90	45%			
Satisfactory	49	24.5%			
Fairly Satisfactory	13	6.5%			
Did Not Meet Expectations	0	0%			

**Note:** 90%-100% Outstanding; 85%-89% Very satisfactory; 80%-84% Satisfactory; 75%-79% Fairly Satisfactory. 74% and below Did not Meet Expectations

Table 5 indicates the Overall Mean of students' Academic Performance of 86.39 (SD=3.81) interpreted as Very satisfactory. It implies that out of 200 respondents there were 45% composed of 90 students who have an average grades of 86% - 89 % interpreted as Very Satisfactory. The result shows that respondents under the Grade 9 level have above average competency and performed beyond the average level due to their exposure on the use of digital application. Furthermore, some related studies revealed that the use of the different digital applications develop student's interest and engage more on their study Thus, the result indicates that students' performance is Very Satisfactory and the level of the student's participation in completing their activity become more progressive (Roshan et al., 2022).

On the other hand, 6.5% consisted of 13 students have an average grade of 75% - 79% interpreted as Fairly Satisfactory. This means that there are only few learners having struggles on acquiring knowledge towards the subject. Those students were less updated and having doubts in understanding the concept (Talimodao et al., 2021).

**Problem 3.** Is there a significant relationship between the students' perception on the Use of Digital Application and Students' Performance in Grade 9 level?

**Table 6**

*Correlation Analysis between Digital Application and Performance*

Variables	Computed (r)	P-value	Decision on Ho	Interpretation
Google Form	0.574	0.000	Reject	Significant Relationship
Video Recorded Lesson	0.652	0.000	Reject	Significant Relationship
Messenger (GC)	0.535	0.000	Reject	Significant Relationship

**Note:** Alpha at 0.05 level of significance

Table 6 presents the Significant Relationship between the students' perception on the Use of Digital Application and Students' Academic Performance in Grade 9 level. The table implies that the null hypothesis of the study is rejected at 0.05 level of significance. It means that there is a Significant Relationship between students' perception on the use of digital application and their Academic Performance.

The study indicates that the strategic application of digital technologies improves knowledge construction and student learning outcomes. It reveals that there is a strong correlation between the use of digital application and students' performance that falls into  $0.4 \leq r < 0.6$ . Nguyen (2021) said that the use of digital tools in the educational process combines positive perceptions and attitudes, making students' performances more engaging and exciting. As a result, the more students use the digital applications, the more actively they participate and are capable in the courses. They also feel connected to the teachers and classmates, which is more advantageous to cope with challenges in learning the concept of the subjects.

Additionally, it provides them with a chance to develop their abilities and do well in school. It was also agreed by Arrosagaray et al., (2019) that learners feel much comfortable to have positive self – confidence on their capabilities on doing their activities by using digital technologies. Indeed, that integration of technology into teaching-learning process generally provides a beneficial effect and positive interaction towards understanding the content of the subjects.

Indeed, it was also suggested by other studies that using digital application had an advantage in the teaching learning process. According to Wiyono et.al (2021) that use of integration of digital application provides an effective quality on the instruction and had a greater significant effect to the student's outcomes.

## Conclusions

This study examines the perception on the use of digital application and students' performance.

1. Students are Satisfied with the Digital Application use in Modular Distance Learning. Google Form and Messenger contribute a great impact and connection in their studies. These two Digital Application can be a way of monitoring the attendance and updating the students on their studies. Teachers can give feedback or answer to students' queries anytime. More likely, the use of both digital application breaks the wall of rejection and gap of both teachers and students. Video Recorded Lesson though gives the lowest Mean but students are also Satisfied with this Digital Application. All the three indicators help improve the teaching and learning process.

2. Students who have exposures on the Digital Applications contributes on the students' level of academic performance and perform beyond average level. This result positively increased student's interest and provides an innovative strategic tool that makes positive impact and connection in their studies using digital application.

3. With the significant relationship between the students' perception on using Digital Application in terms of Google Form, Video Recorded Lessons and Messenger and their Academic Performance, the students are Strongly Satisfied and more likely use the Digital Application in their learning as well as an opportunity for them to communicate with their teachers, classmates, and engage with their course materials whenever and wherever they like. Digital Applications make learning simple for students to obtain knowledge, which help them develop a favorable attitude towards it. It can be concluded further that Digital Applications have recently become quite popular to the students and are turning to online learning tools to communicate with their teachers and other students. Thus, the students' perception on the use of the digital Application contributes a positive and concrete connection to the academic performance of the learners.

## Recommendations

The study pointed out suggestions and recommendation.

1. Digital Applications for teaching and learning in this pandemic time and for the 21<sup>st</sup> century is important. Teachers and students need to learn the skills of using the different platforms. Parents should understand that having digital tools is already a necessity for their children. Internet connectivity is also important. It could be better for the schools to provide strong Internet connections for teachers and students to use. The government will subsidize the expenses for Internet usage in all homes of the country.

Google Forms, Video Recorded Lessons and Messenger are just some of the Digital Applications that are useful for teaching and learning. Video Recorded Lessons should be mastered by the teachers to prepare because this is an important Digital Application which could help improve the learning of the students because when posted in the Messenger, this can be watched by the students anytime for their review and more understanding. A training in making Video Recorded Lessons for the teachers can be beneficial.

2. There are some students having Fairly Satisfactory in their level of Academic Performance for the reason that some students cannot be informed directly and updated on the instruction of the lessons because they lack Internet connections or they do not have the gadgets to open the Digital Applications. In addition, some of them lack communication with their teachers for the same reason.

Schools may hold trainings to teachers on ways to connect with their students who do not have access to any Digital Applications. Sample ways to connect with students are Home Visitation, and Modular Prints so that students can still have Very Satisfactory or Outstanding level of Academic Performance.

3.The Department of Education may expand provision of digital tools to teachers and students and strong Internet connections to every school so that both teachers and students have reasons to learn and update themselves to digital sophistication. Further study is advised for teachers and students to cope with the 21<sup>st</sup> century skill especially on the use of Digital Application.

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