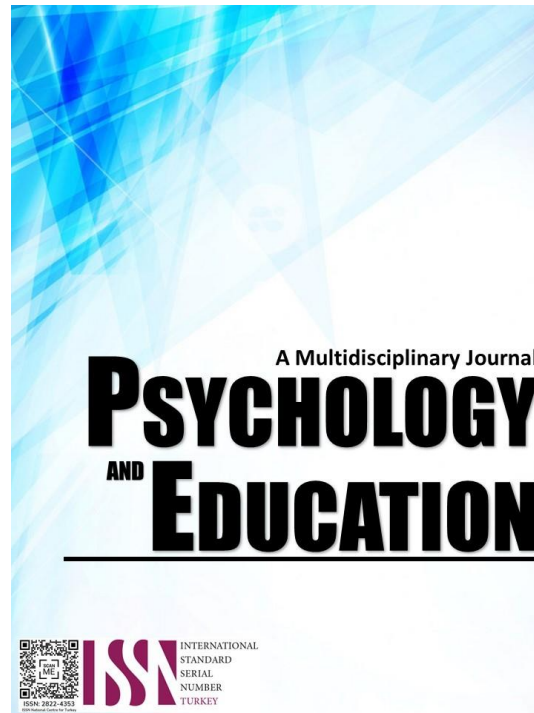


**PUPILS' STUDY HABITS IN BLENDED LEARNING
MODALITY AND THEIR ACADEMIC PERFORMANCE
IN MATHEMATICS AND ENGLISH: INPUTS FOR AN
INTERVENTION PROGRAM**



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Pupils' Study Habits in Blended Learning Modality and Their Academic Performance in Mathematics and English: Inputs for an Intervention Program

Etheyl F. Solano*

For affiliations and correspondence, see the last page.

Abstract

The study sought to determine the relationship between the pupils' study habits in blended learning modality and their academic performance in Mathematics and English which serves as Inputs for an Intervention Program in Balara Elementary School, Quezon City during the School Year 2022-2023. The descriptive survey research was employed in this study. A total of 230 Grade 6 Pupils from Balara Elementary School participated in this study. They come from a total of 540 pupils distributed into 13 sections. Cluster – random sampling was used to select the respondents; 18 pupils from each of the sections, or an equivalent of 42.59 percent of the population. The respondents were described based on their demographic profile such as age, sex, family income status, parent's educational attainment. Based on the findings, the students Agreed that that their online and face-to-face classes are executed with proper time management, with all the necessary learning materials, and with acceptable, appropriate, and inevitable learning environment. In addition, the respondents had good grades in Mathematics and English in three school years. More so, there is a high positive correlation between the English and Mathematics grades of the respondents in three consecutive school years. On the other hand, there is a negligible negative correlation, $r = -0.72$, between the study habits of the respondents in the online mode in terms of time management and their academic performance in the said subjects, high positive correlation, $r = .708$ in terms of learning materials, and low positive correlation, $r = .492$ in terms of learning materials. Meanwhile, there is a high positive correlation, $r = .727$, between the study habits of the respondents in the face-to-face mode in terms of time management, low positive correlation, $r = .473$, in terms of learning materials, and high positive correlation, $r = .771$ in terms of learning environment. Furthermore, there is no significant difference in the assessment of the respondents on their study habits in terms of the given aspects and their profile.

Keywords: *blended learning, study habits, english, mathematics*

Introduction

The Basic Education Learning Continuity Plan. BE-LEP has been designed with a legal framework responsive to the new normal, keeping in mind the constitutional mandate to always uphold the right of all citizens to quality education. The Department of Education (DepEd) also reviewed and assessed the programs, projects and activities outlined in the plan and their corresponding budgetary implications. The available program funds are being maximized, reprogrammed, or realigned to the programs, projects and activities that shall require more funding support with a learner-oriented framework, the reforms articulated in the BE-LEP are aligned with the four pillars of Sulong Edukalidad; K-12 Curriculum review and update; improving the learning environment; teachers' upskilling and reskilling; and engagement of stakeholders for support and collaboration. These pillars shall be implemented with emphasis on INNOVATION, AGILITY, SYNERGY.

Learning is an everyday concern; it is a very important facet of life for it builds one's future. Nevertheless, not all learners enjoy learning as evidenced by poor academic performances, dropouts from school, inability to complete one's course pursued, stopped

from schooling, and other similar related concerns. An important finding from research studies shows a less attractive teaching style of the tutor. Alongside that, the study habits and attitude of the pupils have not been regularly monitored, if not totally discarded by teachers and parents.

It is primarily important to assess, monitor, evaluate, and provide remediation to the slow-paced learning by pupils. It is from this stint that the role of the teacher becomes increasingly significant. Through the teacher's appropriate monitoring style, the motivation to learn by pupils may show remarkable elevation. The pupils study habits along selected variables; when assessed, may help teachers and parents in their better educational aspiration for the young members of society.

Face-to-face mode in which the students and the teacher are both physically present in the classroom and there are opportunities for active engagement, immediate feedback, socio-emotional development of learners. Another is the Distance Learning where learning takes place between the teacher and the learners who are geographically remote from each other during instruction. This modality has three types: Modular Distance Learning (MDL), Online Distance Learning (ODL), TV/Radio-Based Instruction. Online

Distance Learning features the teachers as facilitator, engaging learners' active participation using various technologies accessed through the internet, Online learning allows live synchronous instruction where the learners may download materials, complete, and submit assignments online, attend webinars and virtual classes. Furthermore, Distance learning modality is most viable for independent learners, and learners supported by periodic supervision of parents or guardians. The challenge will be in dealing with learners not capable of independent learning. Another is that the Blended Learning which combines face-to-face with any or a mix of online distance learning, modular distance learning, TV/Radio-Based Instruction. Blended learning will enable the schools to limit face-to-face learning, ensure social distancing, decrease volume of people outside the home. LR Portal and DepEd Commons, media institutions will be maximized. Another type of learning modality is Homeschooling which aims to provide learners with quality basic education that is facilitated by qualified parents, guardians or tutors who have undergone relevant training in a home-based environment. For the present study, a deliberate analysis and compassion of pupils' academic performance in Mathematics and English will be done when they were in the online distance learning modality and now that they are in the face-to-face mode.

Pupils of every generation are supposed to cultivate their good study habits for them to have a higher level of learning. Consequently, they earn good grades which evidence a satisfactory academic performance. Now that the new normal state is fast approaching, pupils, more than ever, must be adaptive to the changing conditions. The Hybrid learning modality is fast gaining momentum for pupils to be immersed in. Learning through face-to-face communication and online mode is the situation where pupils are in now. Alongside, the study habits of the pupils have to be realigned and redirected to the challenges which are inherent therein. For a clearer understanding of this concern, this study is proposed for a better enlightenment on the issue.

Research Questions

The study sought to determine the relationship between the pupils' study habits in blended learning modality and their academic performance in Mathematics and English which served as Inputs for Intervention Program at Balara Elementary School, Quezon City during the School Year 2020-2021; 2021-2022; 2022-2023. In particular, the study aimed to answer the following questions:

1. How do the respondents describe their demographic profile in terms of;
 - 1.1 Age;
 - 1.2 Sex;
 - 1.3 Family income status;
 - 1.4 Father's highest educational attainment; and
 - 1.5 Mother's highest educational attainment?
2. What is the perception of the respondents on their study habit in terms of the following;
 - 2.1 Time Management;
 - 2.2 Learning Materials; and
 - 2.3 Learning Environment?
3. What is the level of academic performance of the pupils in online and face-to-face modality in Mathematics and English during 2020-2023?
4. Is there significant relationship in the study habits of the pupils in online and face-to-face modality their academic performance in Mathematics and English for SY 2022-2023?
5. Is there a significant difference in the study habits of the pupils online and face-to-face modality based on their demographic variables?
6. Based on the findings of the study, what Intervention program could be proposed or developed to address the needs of the pupils?

Literature Review

According to India Today Web Desk (2021), every parent strives to provide the best education possible for their children. They aspire that their children achieve great academic success, which in turn would mold them into better professionals. However, not every child might be able to achieve tremendous success in academics, which could be a cause of concern for parents. Not every study habit can work well. As a parent to a young child, you need to make sure your kid(s) are learning correctly.

Based on Inquirer.net (Dela Peña, 2023) article entitled, "Southeast Asia rank: PH 2nd to worst in Grade 5 students' reading, math skills", states that parent's involvement in academic activities is essentials in children's school performance, however, in the Philippines, children from families of the lowest socio-economic status, rural areas, and public schools are less likely to have academically engaging parents.

Furthermore, the needs and challenges that 21st century education brings, forces facilitators to change their perspective on teaching and to accommodate learners differently than they did in the past (Bosch & Pool, 2019).

And to add to the problems of teachers in educating their students, school officials in the region disclosed that most of the public schools also lack relevant learning materials. Teachers now must help their students catch up with some of the important lessons they missed out on at the height of the pandemic.

According to Tan, I.R.R., et. al (2022) in their article entitled Special Report: Distance learning harmed students' learning, behavior (Last of three parts), Unicef Executive Director Catherine Russell said that even before the pandemic, the most marginalized children were being left behind. As the pandemic enters its third year, we can't afford to go back to 'normal.' We need a new normal: children into classrooms, assessing where they are in their learning, and providing them with the intensive support they need to recover what they've missed, and ensuring that teachers have the training and learning resources they need.

Fiel, J.R. (2022) stated that blended learning helps students conveniently though they lack the availability of computers. Subsequently, making the knowledge, attitude, and motivation the most predicted reason for teachers' application. In lieu of this, institutional administrators, especially the human resource office, is highly recommended to take appropriate interventions to sustain the engagement of the faculty toward blended learning. Thus, continuous proceedings of how well-blended learning strategies are accepted and adapted in multicultural settings are significant.

In addition, a study by Capuno et. al (2019) entitled "Attitudes, Study Habits, and Academic Performance of Junior High School Students in Mathematics" found that the study revealed that those respondents had positive attitudes towards mathematics in terms of its value while they had a neutral attitude when it comes to their self-confidence, enjoyment, and motivation in mathematics. Also, the study shows that there was a negligible positive correlation between the attitudes and academic performance of the respondents in terms of their self-confidence, enjoyment, and motivation while there was a weak positive correlation between the value of math and their academic performance in math. It was concluded that students' attitudes and their study habits are significant factors that affect their performance in mathematics. The researchers strongly recommend the utilization of the enhancement plan in the teaching of mathematics to junior high school students.

Moreover, a study by Swanson (2022) entitled "The Relationship between Early Classroom Activities and

English Language Learners' Later Math Problem-Solving Performance: An Exploratory Study" found that two major findings emerged. First, strategy instruction, peer interaction, and explicit instruction in Wave 1 uniquely predicted English problem-solving scores in Wave 2 independent of grade level, vocabulary, calculation, and problem-solving at Wave 1. Second, the frequency of explicit instruction and peer interactions was significantly related to the odds of predicting ELL children at risk for math disabilities. The results are discussed within the context-specific instructional activities that were positively related to later math outcomes.

Furthermore, a study by Salcedo-Relucio, M. A. (2019) entitled "Factors Affecting the Study Habits of Grade Eleven Students in One National High School in Pangasinan, Philippines" found out that the respondents are practicing wrong and poor study habits. The researcher also revealed that less study hour results in poor grades and performance. Respondents do not have a timetable for study and have other distractions such as family stress and addiction to social media. There is a positive relationship between the study habits of the students with their academic performance. And the researcher concluded that study habits are a prerequisite for good and outstanding academic performance of students. The researcher will take note of the content of the study as a basis on how students spend their time studying and doing their homework.

Lastly, Guinocor et al. (2020) used a descriptive-correlational design to gather data through an adopted survey tool for study habits and attitudes. The researchers concluded that most of the students academically performed very good, and their study orientation generally falls also to the above-average level. There was a significant disparity among the level of the study orientation of the students wherein the study orientation of the highest academic performers is significantly at far with the lower two identified groups. Furthermore, the study orientation of the students has a very significant relationship to their academic performance, wherein students with high study orientation tend to achieve more compared to the students with lower study orientation students' preferred teaching approach.

Methodology

The descriptive-survey method of research was used in this study. Its major purpose is to characterize what is going on presently as to the study habits and academic

performance of the respondents as well as determine any significant relationship thereof. Bhat (2020) defined descriptive-survey research as a popular research tool for collecting data from respondents where the sample size is, and done through online or offline surveys, questionnaires, or polls. It describes the characteristics and nature of the phenomenon being studied. The researcher looks for answers to queries like why, what, how, where, when, etc. By employing a descriptive research approach, a researcher can discover additional information regarding the researcher's problem. Researchers from a range of disciplines utilize descriptive research to clearly pinpoint a population or situation. It blends quantitative and qualitative data to provide relevant and accurate information. It engages people who are at the center of the research objective (Formplus Blog, 2020).

Participants of the Study

The participants in the study are Grade Six pupils from Balara Elementary School. This school has an accessible location to the University of the Philippines. Grade Six pupils of the school participated in the survey. There are 540 pupils in all; only 230 of them or approximately 42.59 percent represented the whole batch. Cluster – random sampling was utilized for the purpose of determining the sample. The total number of Grade Six pupils is distributed among 13 sections; Eighteen pupils from each section were randomly selected.

Instruments of the Study

The survey questionnaires for the purpose of this study were made available online to easily access the target respondents. It is a researcher-made questionnaire on the study habits and of the pupils. Likewise, a questionnaire on the pupils' demographic pupils is included. It will be subjected to validation among 18 pupils who did not participate in the actual survey. Responses from there were tested for validity level using SPSS Cronbach Alpha 0.05.

Procedure

First, a letter of referral was endorsed to the Department of Education for permission to conduct the survey in Balara Elementary School. For confirmation, a follow – up visit with the principal of Balara Elementary School was made. The time the approval of the referred letter was availed, the survey questionnaire was uploaded in Google forms for the purpose of validation, then the actual survey.

Alongside, the pupil - respondents were notified by their respective advisers in favor of the survey. As the questionnaire was in Google forms, tabulation of results was facilitated releasing immediately the desired output. When those are available, statistical treatment of gathered data were processed. Documentary Analysis was likewise utilized in the study, there is a need to have available the final grades in Mathematics and English of the respondent pupils when they were Grade Four and Grade Five. The office of the Registrar of the school is the depository of these records. Their last quarter grades in some subjects; now that they are in Grade Six, were obtained from their subject teachers. Every individual has rights which must never be taken away. As individuals, they have the right to decide whether they get involved in this research. This fact was stated clearly in the questionnaire cover letter. Before the consent is sought, the researcher gave details of the nature and purpose of the research and who will have access to the data and the proposed outcome of the research. Parental consent is also included since respondents are Grade Six pupils. Completion of the questionnaire by the participants will be taken as their giving consent to participate in the study. Participants were given adequate time to consider their participation. A self-administered questionnaire was potentially protecting the anonymity and privacy of the respondents. To ensure that confidentiality is truly protected, the name of the respondents in the questionnaires was optional. A written guarantee was given to participants that the data collected will remain confidential and that only the researcher and the statistician employed by the researcher will have access to it.

Ethical Considerations

The researcher herself explained and gave the informed consent to each participant before the conduct of the study. She ensured them that the information would be used with utmost confidentiality and within the purpose of the study only.

Results and Discussion

Demographic Profile of Respondents



Table 1. Frequency and Percentage Distribution of the Respondent Pupils by Age

Age	Frequency	Percentage
10-11 years old	49	21.30
12-13 years old	168	73.04
14-15 years old	8	3.48
16 years old and above	5	2.18
TOTAL	230	100

A great majority of the respondent pupils, 168 or 73.04 percent, are aged 12-13. Some 49 or 21.30 percent are younger at 10-11 years old. Only a few; eight or 3.48 percent and five or 2.18 percent are 14-15 years old and 16 years old and above respectively.

Table 2. Frequency and Percentage Distribution of the Respondent Pupils by Sex

Sex	Frequency	Percentage
Boy	101	43.91
Girl	129	56.09
TOTAL	230	100

Given in Table 2 is the distribution of the respondent pupils by sex. Among the 230 respondent pupils, there are more girls: 129 or 56.09 percent than boys which is 101 or 43.91 percent only as the respondents of the study by sex.

Table 3. Frequency and Percentage Distribution of the Respondent Pupils by Family Income Status

Family Income Status	Frequency	Percentage
P 10,000 and below	122	53.04
P 10,001 to P 15,000	57	24.78
P 15,001 to P 30,000	36	15.65
P 30,001 and above	15	6.53
TOTAL	230	100

A great majority of the pupil - respondents, which is 122 or 53.04 percent have monthly family income of P10,000 and below, followed by 57 or 24.78 percent with monthly family income of P10,001 to P15,000. Those whose monthly family income is P15,001 to P30,000 numbered 36 or 15.65 percent. Only 15 of them or 6.53 percent have more than P30,000 monthly family income.

Table 4. Frequency and Percentage Distribution of the Respondent Pupils by Father's Highest Educational Attainment

Father's Highest Educational Attainment	Frequency	Percentage
Elementary School Graduate	33	14.35
High School Graduate	123	53.48
College Graduate	74	32.17
TOTAL	230	100

The highest educational attainment of the fathers of the pupil-respondents is high school graduate with 123 or 53.48 percent. Several of them; 74 or 32.17 percent are college graduates. Some of them; 33 or 14.35 percent are elementary school graduates.

Table 5. Frequency and Percentage Distribution of the Respondent Pupils by Mother's Highest Educational Attainment

Mother's Highest Educational Attainment	Frequency	Percentage
Elementary School Graduate	23	10
High School Graduate	134	58.26
College Graduate	73	31.74
TOTAL	230	100

The highest educational attainment of the mothers of the pupil-respondents is high school graduate with 134 or 58.26 percent. Several of them; 73 or 31.74 percent are college graduates. Some of them; 23 or 10 percent are elementary school graduates.

Perception of Respondents on their Study Habits

Table 6. Distribution of Respondent Pupils' Positive Evaluation of their Study Habits along with Time Management

Variables Studied	SA	A	DSA	SDsA	WM	SD	Verbal Interpretation
Online Mode							
I follow and stick to our class schedule for online classes.	15	27	89	99	3.01	.88	Agree
I review our recorded lessons for any surprised quiz.	17	54	99	60	3.56	.88	Strongly Agree
I attend my online classes on time and stay up to dismissal time.	21	14	79	116	2.62	.93	Agree
Face-to-Face Mode							
I am eager to go to school on time for our face-to-face classes.	23	23	75	109	3.17	.97	Agree
I am always present in our face-to-face classes.	19	37	60	114	3.17	.98	Agree
I go home immediately after our face-to-face classes	15	18	63	134	3.37	.89	Agree
AVERAGE (online mode)					3.06	.90	Agree
AVERAGE (face-to-face mode)					3.24	.95	Agree



The pupil-respondents expressed their agreement to follow and stick to their class schedule for online classes. They attend their classes on time and stay up to dismissal time. They strongly agreed to review their recorded lessons for any surprise quiz.

The pupil-respondents are eager to attend on time their face-to-face classes. They are always present, go home immediately after school. With an average weighted mean value of 3.06, the pupil-respondents agreed that their online classes are executed with proper time management. On the other hand, they are on a similar evaluation when it comes to time management they use for their face-to-face classes as revealed by the average weighted mean value 3.24.

In both online mode and face-to-face mode, the pupil-respondents were found belonging to a homogeneous group as revealed by the standard deviation values .90 and .95 respectively. They have a common evaluation of their study habits in both learning modes.

Table 7. Distribution of Respondent Pupils' Positive Evaluation of their Study Habits along with Learning Materials

Variables Studied	SA	A	DSA	SDSA	WM	SD	Verbal Interpretation	
Online Mode								
I review our printed modules and Powerpoint presentations to better understand our lessons	13	32	108	77	3.62	.83	Strongly Agree	
I like my gadgets at home like cellphone, tablet or laptop.	19	49	81	80	2.96	.95	Agree	
I follow educational shows on social media like Facebook, Instagram, Twitter, YouTube.	18	45	86	81	3.00	.93	Agree	
Face-to-Face Mode								
I am happy to watch films related to our class discussions.	21	26	76	107	3.17	.95	Agree	
I like our mini library inside our classroom.	15	43	100	72	2.99	.87	Agree	
I am interested to study in the laboratory of our school.	18	38	107	67	2.97	.88	Agree	
AVERAGE (online mode)						3.19	.90	Agree
AVERAGE (face-to-face mode)						3.04	.90	Agree

The pupil-respondents expressed their agreement on the usefulness of their gadgets at home like cellphone, tablet, or laptop. With the gadgets, they likewise follow educational shows on social media like Facebook, Instagram, Twitter, YouTube. They strongly agreed to review their printed modules and PowerPoint presentations to better understand their lessons.

To the pupil-respondents, they are going to school to attend their face-to-face classes is a motivation to them. The films they watch which are related to their class discussions are useful to them. The mini library inside their classroom and the laboratory they have in school add up to their learning experience.

With an average weighted mean value of 3.19, the pupil-respondents agreed that they enjoy their online classes with all the necessary learning materials. On the other hand, attending their face-to-face classes gives them enjoyment, too, as seen from the average weighted mean value 3.04.

In both online mode and face-to-face mode, the pupil-respondents were found to belong to a homogeneous group as revealed by the standard deviation values .90 and .90 respectively. They have a common evaluation of their study habits in both learning modes.

Table 8. Distribution of Pupil-respondents Positive Evaluation of their Study Habits along with Learning Environment

Variables Studied	SA	A	DSA	SDSA	WM	SD	Verbal Interpretation	
Online Mode								
I enjoy a peaceful and quiet place in my study room at home.	22	24	73	111	3.19	.97	Agree	
I have a study table at home where I put all my study materials.	16	55	90	69	2.92	.90	Agree	
I find safe my study room at home since it is properly lighted and ventilated.	13	43	90	84	3.07	.88	Agree	
Face-to-Face Mode								
I enjoy the big space in our classroom for social distancing.	18	22	91	99	3.18	.90	Agree	
I feel safe in our school with the temperature check and alcohol/sanitizer at the entrance gate.	18	21	75	116	3.26	.92	Agree	
I like the signages in our school informing about health and safety protocols.	12	21	61	136	3.39	.85	Agree	
AVERAGE (online mode)						3.06	.92	Agree
AVERAGE (face-to-face mode)						3.28	.89	Agree

The pupil-respondents said and agreed that they have a peaceful and quiet study room at home with a study table and study materials. They find their study room at home to be safe because it is properly lit and ventilated.

As for their school, they likewise feel safe during their stay. They have a big classroom for social distancing. They have temperature check and alcohol/sanitizer at the entrance gate. Likewise, they see and read signages informing about health and safety protocols.

The average weighted mean value 3.06 relates to learning environment in the online mode clarifies the agreement of the pupil-respondents on its appropriateness. Similarly, the average weighted mean value 3.28 related to learning environment in the face-to-face mode demonstrates the agreement of the respondent pupils on its acceptability.

In both online mode and face-to-face mode, the pupil-respondents were found to belong to a homogeneous group as revealed by the standard deviation values .92



and .89 respectively. They have a common evaluation of their study habits in both learning modes.

Table 9. *Distribution of Pupil-respondents' Negative Evaluation of their Study Habits along with Time Management*

Variables Studied	SA	A	DSA	SDsA	WM	SD	Verbal Interpretation
Online Mode							
I do my online assignments at 8-10 in the evening.	40	48	90	51	2.65	1.01	Agree
I take my snacks and watch television shows during our online classes.	107	70	23	29	1.88	1.04	Disagree
Face-to-Face Mode							
I am not interested to study in school if I dislike the teacher.	103	61	36	29	1.94	1.01	Disagree
I browse at my previous texts and chats, while in our classroom, if the lesson is not interesting to me	35	75	84	35	2.49	1.10	Disagree
AVERAGE (online mode)					2.27	1.03	Disagree
AVERAGE (face-to-face mode)					2.22	1.06	Disagree

When asked for their evaluation of their online classes in terms of time management, the pupil-respondents agreed they do their online assignments at 8-10 in the evening. Further, they disagreed that they take their snacks and watch television shows during their online classes. When asked of their evaluation of their face-to-face classes in terms of time management, the pupil-respondents disagreed that they are not interested in studying if they dislike the teacher. Likewise, they disagreed to browse at previous texts and chats if the lesson is not interesting.

The average weighted mean value 2.27 selected to time management in the online mode confirms the disagreement of the pupil-respondents for their evaluation. Similarly, the average weighted mean value 2.22 related to time management in the face-to-face mode reveals the disagreement of the respondent pupils for their assessment.

The measure of variability in Table 9 is a little different. The standard deviation values 1.03 and 1.06 respectively uncovered that the group is somewhat diverse and heterogeneous. The pupil-respondents are not one and the score in their evaluation of their study habits in both learning modes.

Table 10. *Distribution of Pupil-respondents' Negative Evaluation of their Study Habits along with Learning Materials*

Variables Studied	SA	A	DSA	SDsA	WM	SD	Verbal Interpretation	
Online Mode								
I do not like to listen to live discussions in our online classes	81	88	40	20	1.99	1.06	Disagree	
I am angry that my internet connection at home is not stable.	99	69	32	29	1.95	.93	Disagree	
Face-to-Face Mode								
I do not have complete textbooks.	123	58	24	24	1.77	.95	Disagree	
I do not participate in our class projects for lack of materials needed	106	63	24	35	1.91	1.05	Disagree	
AVERAGE (online mode)						2.16	.99	Disagree
AVERAGE (face-to-face mode)						1.84	1.00	Disagree

The disagreement of the pupil-respondents on their online classes in terms of learning materials was uncovered by the average weighted mean of 2.16. Similarly, their disagreement on their face-to-face classes in terms of learning materials was seen through the average weighted mean of 1.97.

The pupil-respondents like to listen to live discussions in their online classes. They too are content with their internet connection at home.

The face-to-face classes of the pupil-respondents in terms of learning materials is not a problem to them, they have complete textbooks. They too participate in their class projects since the needed materials are available.

The measure of variability in Table 9 is a little different. The standard deviation values .99 and 1.00 respectively uncovered that the group is somewhat diverse and heterogeneous. The pupil-respondents are not one and the score in their evaluation of their study habits in both learning modes.

Table 11. *Distribution of Pupil-respondents' Negative Evaluation of their Study Habits along with Learning Environment*

Variables Studied	SA	A	DSA	SDsA	WM	SD	Verbal Interpretation	
Online Mode								
I am irritated that my family members keep calling me when I am in my online classes.	60	69	75	26	2.28	.97	Disagree	
I am annoyed that my siblings are studying with me in my study room	79	89	33	28	2.03	.99	Disagree	
Face-to-Face Mode								
I feel very warm inside our classroom; The electric fans are not functioning.	66	73	57	34	2.26	1.03	Disagree	
I am afraid of the destroyed chairs at the back of our classroom.	82	77	46	25	2.05	.99	Disagree	
AVERAGE (online mode)						1.77	.98	Disagree
AVERAGE (face-to-face mode)						2.16	1.01	Disagree

The pupil-respondents disagreed that they are irritated by the calls of family members when they are in their online classes. They are not annoyed that their sibling's study with them in their study room. The



pupil-respondents disagreed that they are irritated by the calls of family members when they are in their online classes. They are not annoyed that their sibling’s study with them in their study room.

The pupil-respondents likewise disagreed that they feel warm during their face-to-face classes. The electric fans in their classrooms are functioning. Additionally, there are no destroyed chairs at the back of their classroom. The average weighted mean value 2.16 for evaluation in their online classes; and average weighted mean value 2.16 for evaluation in their face-to-face classes revealed the disagreement of the pupil-respondents as their analysis of their learning environment.

Table 12. *Frequency and Percentage Distribution of Respondent Pupils on their Level of Performance in English, 2020-21(online mode)*

<i>Grade Description</i>	<i>Frequency</i>	<i>Percentage</i>
Excellent	1	.43
Very Good	43	18.70
Good	181	78.70
Passed	5	2.17
Total	230	100

The pupil-respondents had their online class in the SY 2020-21, pandemic time. When their grades in English were tabulated, the following were revealed. One of them, or .43 percent, had an excellent grade. Forty-three of them or 18.79 percent got Very Good grades. A great majority of them, 181 or 78.70 percent had good grades. Only five or 2.17 percent got a Passed grade.

Table 13. *Frequency and Percentage Distribution of Respondent Pupils on their Level of Performance in Mathematics, 2020-21 (online mode)*

<i>Grade Description</i>	<i>Frequency</i>	<i>Percentage</i>
Excellent	60	26.09
Very Good	99	43.04
Good	54	23.48
Passed	17	7.39
TOTAL	230	100

Sixty of them or 26.09 percent had an Excellent grade. Ninety-nine of them or 43.04 percent got Very Good grade. Some 54 or 23.48 percent had good grades, still others, 17 or 7.39 percent got a Passed grade.

Table 14. *Frequency and Percentage Distribution of Respondent Pupils on their Level of Performance in English, 2021-22 (online mode)*

<i>Grade Description</i>	<i>Frequency</i>	<i>Percentage</i>
Very Good	53	23.04
Good	177	76.96
TOTAL	230	100

The pupil-respondents had their online class in the SY 2021-22, pandemic time. When their grades in English were tabulated, the following were revealed. A great majority of them, 177 or 76.96 percent received a grade of Good in their English subject. The remaining, 53 or 23.04 percent, on the other hand, got a grade of Very Good.

Table 15. *Frequency and Percentage Distribution of Respondent Pupils on their Level of Performance in Mathematics, 2021-22 (online mode)*

<i>Grade Description</i>	<i>Frequency</i>	<i>Percentage</i>
Very Good	61	26.52
Good	169	73.48
TOTAL	230	100

Several of them, 169 or 73.48 percent had a grade of Good in their Mathematics subject. Around a quarter, 61 or 26.52 percent had a rating of Very Good.

Table 16. *Frequency and Percentage Distribution of Respondent Pupils on their Level of Performance in English, 2022-23 (online mode)*

<i>Grade Description</i>	<i>Frequency</i>	<i>Percentage</i>
Excellent	1	.43
Very Good	93	40.43
Good	136	59.14
TOTAL	230	100

Among the 230 pupil-respondents, 136 or 59.14 percent received a grade of Good in their English subject. Another group of 93 pupils or 40.43 percent had a grade of Very Good. Only one of them or .43 percent received an Excellent grade.



Table 17. *Frequency and Percentage Distribution of Respondent Pupils on their Level of Performance in Mathematics, 2022-23 (online mode)*

Grade Description	Frequency	Percentage
Excellent	1	.43
Very Good	95	41.30
Good	134	58.27
TOTAL	230	100

Among the 230 pupil-respondents, 134 or 58.27 percent received a grade of Good in their Mathematics subject. Another group of 95 pupils or 41.30 percent had a grade of Very Good. Only one of them or .43 percent received and Excellent grade.

Relationship Between Academic Performance in English and Mathematics for 2020-2023

Table 18. *Relationship Between Academic Performance in English and Mathematics, SY 2020-2023*

School Year	Learning Mode	r-value	Verbal Interpretation	t-computed	t-critical	Decision	Interpretation
2020-2021	Online mode	.71	High Positive Correlation	.86	2.05	Reject Ho	Significant
2021-2022	Online mode	.73	High Positive Correlation	.89	2.05	Reject Ho	Significant
2022-2023	Face-to-face mode	.77	High Positive Correlation	.90	2.05	Reject Ho	Significant

The analysis revealed that in SY 2020-21; when the pupils were in the online learning mode, a high positive correlation existed between the pupils' grades in English and Mathematics as revealed by the R-value, .71. This means that as the pupils got good grades in English, they likewise received good grades in Mathematics; a significant relationship existed.

Further analysis revealed that in SY 2021-22; when the pupils were still in the online mode, a high positive correlation existed between the pupils' grades in English and Mathematics as revealed by the R-value, .73. This means that as the pupils got good grades in

English, they likewise received good grades in Mathematics; a significant relationship existed.

Finally, when the pupils are now in school attending their face-to-face classes, still a high positive correlation existed between the pupils' grades in English and Mathematics as revealed by the R-value, .77. this means that as the pupils got good grades in English. They likewise received good grades in Mathematics; a significant relationship existed.

Table 19. *Relationship Between Study Habits in Online and Face-to-Face Modes and Academic Performance in English and Mathematics (SY 2020-2023)*

Variables Studied Online Mode	R-value	Verbal Interpretation	t-computed	t-critical	Decision	Interpretation
Time management	.72	Negligible Negative Correlation	.05	2.05	Accept Ho	Not Significant
Learning materials	.708	High Positive Correlation	.82	2.05	Reject Ho	Significant
Learning environment	.492	Low Positive Correlation	.38	2.05	Accept Ho	Not Significant
Face-to-Face Mode						
Time management	.727	High Positive Correlation	.83	2.05	Reject Ho	Significant
Learning materials	.473	Low Positive Correlation	.42	2.05	Accept Ho	Not Significant
Learning environment	.771	High Positive Correlation	.90	2.05	Reject Ho	Significant

In terms of time management, the R-values showed a significant difference, from -0.72; negligible negative correlation in the online learning mode to .727; high positive correlation in the face-to-face learning mode; a significant relationship now exists.

The study habits of the pupil-respondents in the Online learning mode are inversely correlated with their academic performance in English and Mathematics. They still received good grades despite the less attention they gave to class schedules, class attendance, strict monitoring of time; a no significant relationship now exists.

The grades in English and Mathematics of the pupil-respondents were analyzed as to degree of correlation existing. The periods covered by said analysis are SY 2020-21, SY 2021-22, SY 2022-23. The final grades of the pupils in both subjects were taken for this purpose; except for SY 2022-23 where the third quarter grades were used.

While the study habits of the pupil-respondents in both online and face-to-face learning modes is positively correlated with their academic performance in English and Mathematics; it is a low positive correlation in the face-to-face mode when compared with the high positive correlation in the online mode; a no significant relationship now exists.



The pupil-respondents enjoyed studying the printed modules and PowerPoints presentations sent by their teachers. On the other hand, they were expecting more from the films they watch in school as well as from their school library and school laboratory.

In terms of learning environment, the R-values showed a significant difference. From .492; low positive correlation in the online learning mode to .771; high positive correlation in the face-to-face learning mode; a significant relationship now exists.

In both the online and face-to-face learning modes, the respondent pupils divulged to have encountered any issues, challenges, and problems along their learning journey. This is in terms of time management, learning materials and learning environment. The only thing the respondent pupils must avoid is doing their online assignments at 8-10 in the evening.

Difference in Assessment of Respondent Pupils on their Study Habits as per Demographic Variables

Table 20. Difference in Assessment of Respondent Pupils on their Study Habits As per Age

Variables Studied (Affirmative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	144.25	1.51	152.54	3.57	No significant difference	Failed to reject H0
Learning materials	115.92	1.23	123.26	4.63	No significant difference	Failed to reject H0
Learning environment	123.76	2.71	178.46	4.19	No significant difference	Failed to reject H0

Their study habits were explored in terms of time management, learning materials, and learning environment, as shown above, the p-values are more than the critical value, 0.05.

Their means that age is not a factor to the pupil-respondents as they attended either the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in their assessment of their study habits as per their age. The investigation failed to reject the null hypothesis.

Table 21. Difference in Assessment of Respondent Pupils on their Study Habits As per Age

Variables Studied (Negative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	40.98	2.28	1.49	0.21	No significant difference	Failed to reject H0
Learning materials	26.36	3.81	1.37	0.25	significant difference	Failed to accept H0
Learning environment	10.15	1.51	8.22	2.22	No significant difference	Failed to reject H0

The study habits were explored in terms of time management, learning materials and learning environment. As shown above, the p-values for time management and learning environment are greater than the critical value, 0.05.

This means that age is not a factor to the pupil-respondents as they attended either the online learning mode as face-to-face learning mode in terms of time management and learning environment.

Henceforth, there is no significant difference in the assessment of their study habits as per their age considering time management and learning environment and learning materials.

Table 22. Difference in Assessment of Respondent Pupils on their Study Habits As per Sex

Variables Studied (Affirmative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	215.20	1.20	222.97	1.40	No significant difference	Failed to reject H0
Learning materials	181.33	2.78	190.14	7.64	No significant difference	Failed to reject H0
Learning environment	188.44	1.46	289.07	1.03	No significant difference	Failed to reject H0

Their study habits were explored in terms of time management, learning materials and learning environment. As shown above, the p-values are greater than the critical value, 0.05.

This means that sex is not a factor to the pupil-respondents as they attended either the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in the assessment of their study habits based on their sex. The investigation failed to reject the null hypothesis.

Table 23. Difference in Assessment of Respondent Pupils on their Study Habits As per Sex

Variables Studied (Negative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	63.10	4.88	7.57	5.53	No significant difference	Failed to reject H0
Learning materials	47.96	3.78	12.48	5.89	significant difference	Failed to accept H0
Learning environment	28.97	1.20	25.66	9.71	No significant difference	Failed to reject H0

Their study habits were explored in terms of time management, learning materials and learning environment. As shown above, the p-values are greater than the critical value, 0.05.



For the rest of the variables studied, it is identified that sex is not a factor to the pupil-respondents as they attended either the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in the assessment of their study habits based on their sex. The investigation failed to reject the null hypothesis.

Table 24. *Difference in Assessment of Respondent Pupils on their Study Habits As per Family Income Status*

Variables Studied (Affirmative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	134.05	5.35	143.24	4.21	No significant difference	Failed to reject H0
Learning materials	109.92	8.61	116.23	8.82	No significant difference	Failed to reject H0
Learning environment	116.96	4.01	163.95	4.64	No significant difference	Failed to reject H0

Their study habits were explored in terms of time management, learning materials and learning environment. As shown above, the p-values are more than the critical value, 0.05.

This means that family income status is not a factor to the pupil-respondents as they attended either the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in their assessment of their study habits as per their family income status. The investigation failed to reject the null hypothesis.

Table 25. *Difference in Assessment of Respondent Pupils on their Study Habits As per Family Income Status*

Variables Studied (Negative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	37.06	3.31	1.86	0.13	No significant difference	Failed to reject H0
Learning materials	25.07	2.13	2.87	0.04	significant difference	Failed to accept H0
Learning environment	11.59	2.03	9.89	2.18	No significant difference	Failed to reject H0

Their study habits were explored in terms of time management, learning materials, and learning environment. As shown above, the p-value, 0.04 reflecting study habits in the online mode in terms of

learning materials registered a significant difference based on family income status. The study failed to accept the null hypothesis.

With the rest of the variables studied. The p-values are greater than the critical value, 0.05. Based on the data, family income status is not a factor to the pupil-respondents as they attended either the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in their environment of their study habits as per family income status. In this instance, the investigation failed to reject the null hypothesis.

Table 26. *Difference in Assessment of Respondent Pupils on their Study Habits As per Father's Education*

Variables Studied (Affirmative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	78.16	5.06	85.35	1.06	No significant difference	Failed to reject H0
Learning materials	56.82	1.09	62.28	1.19	No significant difference	Failed to reject H0
Learning environment	63.65	2.19	100.68	2.49	No significant difference	Failed to reject H0

Their study habits were explored in terms of time management, learning materials, and learning environment. As shown above, the p-value, 0.04 reflecting study habits in the online mode in terms of learning materials registered a significant difference based on family income status. The study failed to accept the null hypothesis.

This means that the highest educational attainment of their father is not a factor to the pupil-respondents as they attended either the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in their assessment of their study habits as per their father's education. The investigation failed to reject the null hypothesis.



Table 27. *Difference in Assessment of Pupil-respondents on their Study Habits As per Father's Education*

Variables Studied (Negative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	27.77	6.33	6.58	0.01	significant difference	Failed to accept H0
Learning materials	14.90	2.08	2.37	0.07	No significant difference	Failed to reject H0
Learning environment	2.75	0.04	1.79	0.15	No significant difference	Failed to reject H0

The assessment of the pupil-respondents on their study habits based on the highest educational attainment of their father was done. Their study habits were explored in terms of time management, learning materials, and learning environment. As shown above, the p-values are greater than the critical value, 0.05.

This means that the highest educational attainment of their father is not a factor to the pupil-respondents as they attended either the online learning mode or face-to-face learning modes in terms of time management, learning materials, and learning environment. Hence, there is no significant difference in their assessment of their study habits as per their father's education. Here, the study failed to reject the null hypothesis.

Table 28. *Difference in Assessment of Respondent Pupils on their Study Habits As per Mother's Education*

Variables Studied (Affirmative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	52.87	1.60	58.29	1.73	No significant difference	Failed to reject H0
Learning materials	59.71	2.91	95.98	5.10	No significant difference	Failed to reject H0
Learning environment	81.01	1.74	28.02	4.25	No significant difference	Failed to reject H0

The assessment of the pupil-respondents on their study habits based on the highest educational attainment of their mother was done. Their study habits were explored in terms of time management, learning materials and learning environment. As shown above, the p-values are greater than the critical value, 0.05.

This means that the highest educational attainment of their mother is not a factor to the pupil-respondents as they attended the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in their assessment of their study habits as per their mother's education. Here, the study

failed to reject the null hypothesis.

Table 29. *Difference in Assessment of Respondent Pupils on their Study Habits As per Mother's Education*

Variables Studied (Negative)	p-value				Verbal Interpretation	Decision
	Online mode		Face-to-face mode			
	F-value	P-value	F-value	P-value		
Time management	28.02	4.25	8.21	2.26	No significant difference	Failed to reject H0
Learning materials	15.05	1.69	3.50	0.02	significant difference	Failed to accept H0
Learning environment	2.96	0.03	2.03	0.10	significant difference	Failed to accept H0

Their study habits were explored in terms of time management, learning materials and learning environment. As shown above, the p-values are greater than the critical value, 0.05.

This means that the highest educational attainment of their mother is not a factor to the pupil-respondents as they attended the online learning mode or face-to-face learning mode in terms of time management, learning materials and learning environment. Hence, there is no significant difference in their assessment of their study habits as per their mother's education. Here, the study failed to reject the null hypothesis.

In the online learning mode, the mothers of the pupil-respondents are just like the American mothers. American mothers appear to be less interested in their child's academic achievement; this is not their control concern. Likewise, most Filipino mothers, being busy with household chores and/or office routine, are not so focused on their children while attending online classes.

The assessment of the pupil-respondents on their study habits based on the highest educational attainment of their mother was done. Their study habits were explored in terms of time management, learning materials and learning environment. The p-values obtained are shown above where under certain variables, a significant difference is registered; while in other variables, a no significant difference is found with their study habits based on their mother's education.

In terms of learning environment, the study habits of the pupil-respondents posted a significant difference using the online mode based on their mother's education. Similarly, with learning materials under the face-to-face mode, a significant difference was seen. Alongside, the study failed to accept the null hypothesis.

With respect to learning environment, the study habits of the pupil-respondents in the online learning mode differ significantly as per mother's education, but not in the face-to-face learning mode.

As to learning materials, in the face-to-face modes, a significant difference is found in the study habits of the pupils when assessed based on their mother's education.

Intervention Program

The retooling of teacher's skills in preparing learning materials is necessary due to the changing needs of students and the education system. With the advancement of technology and the increasing prominence of distance learning, teachers need to be able to adapt to new forms of teaching and utilize different tools to engage students.

Effective learning materials are essential for student success and can significantly impact student learning outcomes. Teachers who have the necessary skills and knowledge to create engaging, up-to-date, and relevant learning materials can help students develop a deeper understanding of the subject matter. As more and more students rely on online learning, teachers must be equipped with digital tools and instructional design strategies to create high-quality and interactive learning materials.

Retooling teachers with the skills to prepare learning materials can also lead to greater autonomy in the teaching process. Instead of relying solely on textbooks or pre-made lesson plans, teachers can create their own materials customized to the needs of their students. This allows for greater flexibility in the classroom and fosters a more collaborative learning environment.

Overall, the retooling of teacher's skills in preparing learning materials is essential in meeting the evolving needs of students and the education system. It enables teachers to create effective learning materials, engage students, and promote a more collaborative learning culture.

Conclusion

From the foregoing summary of findings, the following conclusions are inferred. (1) The Grade 6 pupil-respondents are girls and boys of 12-13 years old

with monthly family income of P10,000 and below. Both their father and mother are high school graduates. (2) The respondents, on the affirmative aspects, agreed that their study habits are proper and appropriate in terms of time management, learning materials and learning environment. They are one and the same in their agreement. (3) The respondents, on the negative aspects, disagreed that their study habits are improper and inappropriate in terms of time management, learning materials and learning environment. They come from a diverse group in terms of their disagreement. (4) For three consecutive school years, 2020-2023, the English and Mathematics grades of the respondents posted a high positive correlation in both online and face-to-face learning modes. They got grades of good or very good in both subjects during the school year considered. (5) The assessment of the respondents on their study habits (affirmative aspects) showed no significant difference with their age, sex, family income status, father's highest educational attainment, and mother's highest educational attainment in both online and face-to-face learning modes considering time management, learning materials, and learning environment. (6) The assessment of the respondents on their study habits (negative aspects) posted a significant difference with their age, sex, family income status, father's highest educational attainment, mother's highest educational attainment particularly in the face-to-face learning mode with emphasis on learning materials. (7) The respondents expected too for better learning materials in the online mode based on their age. Whether online or face-to-face mode, the respondents expected a better learning environment based on their mother's highest educational attainment.

From the foregoing conclusions, the following recommendations are offered. (1) The researcher together with the school administrators of the Balara Elementary School in collaboration with the Department of Education (DepEd) may come up with a feasibility study emphasizing the need for budget for the retrofitting of school facilities and retooling of teachers' skills in preparing learning materials. (2) The teachers at the school may participate in a series of in-service training and workshops focused in the preparation of textbooks, workbooks, modules, PowerPoint presentations, audio-visual materials, and other related learning materials. (3) The parents of the pupils maybe to be invited to the school for brief conferencing, symposium or focused group discussion on hybrid learning modality with emphasis on their important role in the education of their children. (4) The researcher with the help of school administrators and teachers may strengthen the Homeroom



Organization of the pupils by discussing with them effective time management for study, maximized use of available learning materials, productive generation of output from the learning environment. (5) The Department of Education (DepEd) may issue a circular or memorandum to schools nationwide to follow the retrofitting and retooling proposed to Balara Elementary School; this will benefit the entire educational landscape as well as the economic system. (6) Adaption by other public schools of the Proposed Intervention Program of this study meant to address the similar educational needs of the pupils may be in order. (7) Inviting future researchers to explore more comprehensively the issues and concerns of this study by including other variables and parameters for more in-depth findings may be accomplished.

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Affiliations and Corresponding Information

Ethyl F. Solano

President Elpidio Quirino National High School
Department of Education - Philippines