

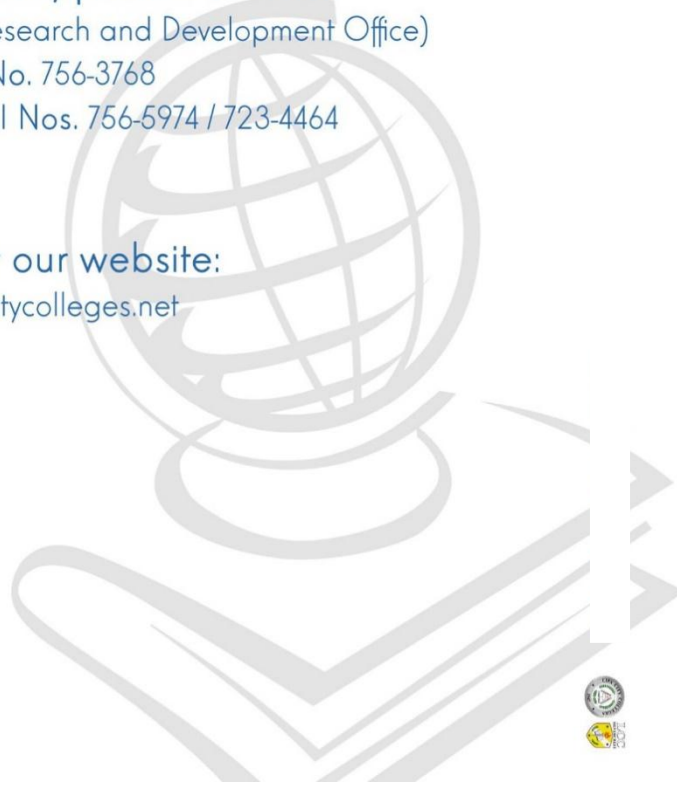
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LCC STUDENT RESEARCH JOURNAL

Lipa City Colleges Official Student Research Journal

GRADUATE SCHOOL
SY 2021-2022





STUDENT RESEARCH JOURNAL
GRADUATE SCHOOL
SY 2021-2022

INSTITUTIONAL PROFILE

The earnest and noble desire of the late educators, Ricardo and Marcella Bonilla, was realized when the Lipa Business Institute was founded in July 1947. Its humble origin began with classes held in rented buildings along B. Morada Avenue, Lipa City. With an enrolment initially consisting of 65 students enrolled in a Secondary Course, what would later on become the Lipa City Colleges thus began.

As the population grew bigger on School Year 1948-1949, the administrators decided to acquire a bigger building not far from its former site. This paved the way for the complete Secondary Course and Collegiate Courses such as Liberal Arts, Junior Normal Education, Commerce and One-Year Secretarial Course.

Not to rest on his achievement and ever fueled by hard work and dedication, Mr. Bonilla obtained a more spacious location at G.A. Solis St., Lipa City, where the school is now presently housed. Hand-in-hand with its new edifice and the burning desire to be the first institution in the city to offer three levels of education – elementary, secondary, and tertiary, the name of the school was changed to Lipa City Colleges on its third year of operation at its new site, after which, successes were reaped continuously in the form of increasing population and improving image in the community as a provider of quality education.

The cause to serve the people in the City of Lipa and adjacent towns continued in the succeeding years, prompting the administrators to put up adjacent five-storey and four-storey buildings to house the needed facilities and serve as home to its growing workforce and clientele. The College of Law was opened and a provincial radio station was installed to tap the talent of students with interest in the field of Broadcast Communication.

Today, Lipa City Colleges is entering into a new phase in its history. Replacing the late Mr. Carlos R. Mojares who has made an indelible marks in the institution's progress, the wife Ms. Glecya B. Mojares is now taking the challenge as the new president

with the able assistance of her daughters Ms. Marjorie M. Abiera and Ms. Beverly M. Mendoza, as Vice-Presidents for Finance and Internal Affairs and External Affairs, respectively, and sons-in-law, Dr. Joe Vincent Abiera and Mr. Patrick Mendoza, as Vice-Presidents for Administration and Corporate Affairs and General Services, respectively.

For more than 60 years, the institution has continued to turn its vision and mission into reality, being one of the leading institutions in the region, producing responsible and competent individuals who have started their journey toward a milestone achievement.

Today, Lipa City Colleges is composed of the following departments - College of Business Education and Accountancy, College of Computer Studies, College of Criminology, College of Education and Liberal Arts, College of Computer Engineering, College of Hospitality Management, College of Nursing, High School Department, and the Graduate School.

The accredited status of the institution spawned a different milieu consisting of hardworking faculty and staff exhibiting dynamism and devotion with most of them having successfully obtained graduate and post graduate degrees.

In School Year 2009-2010, the institution was authorized to confer degree in Computer Engineering to serve the individuals who have an immense passion in this field of study which is vital in this age of complexity and modern technology. Part also of the incessant development to meet the demands of the changing times, the institution successfully completed its own swimming facilities. Continuous improvement of facilities and the acquisition of an additional lot where the Annex Building now stands are further testaments of the school's commitment to be the best in the region. Said building houses Computer and Nursing Skills laboratories and the adjacent lots contain provisions for athletics. Add to this are the improved instruction, research, upgraded laboratory equipment and supplies, increased library collections, more varied and responsive student services, strengthened community involvement as well as the furthering of teacher's qualification and excellence via further studies and trainings. What

we now have is Lipa City Colleges at its best and still on its way to outdoing itself by continuously living up to its vision of being a premier provider of higher education.

VISION

Lipa City Colleges is a dynamic provider of quality education. In the spirit of commitment, excellence and service, the institution forms responsible and competent individuals who participate meaningfully in social transformation.

MISSION

Inspired by our vision, Lipa City Colleges will become a leading institution in the region recognized for the quality of its programs and services. With its corps of professionally qualified and committed personnel, up-to-date technology and functional facilities, the institution offers responsive and innovative programs that integrate theory and practice for the holistic development of men and women in the service of God and country.

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THE OFFICIAL STUDENT RESEARCH JOURNAL OF THE LIPA CITY COLLEGES

The LCC Student Research Journal (The Official Student Research Journal of Lipa City Colleges) is a peer-reviewed journal which publishes annually original research articles from student researcher and master's thesis.

As an academic publication, the LCC Student Research Journal is primarily dedicated to publish research articles for widest dissemination to scientific community.

The Publication Ethics

As an academic publishing journal, The LCC Student Research Journal maintains the highest ethical standard. The academic publication is dependent on the trust built among the Editorial board, the Institutional Ethics Review Committee, peer reviewers and authors. Each of them has ethical responsibilities to execute the publication process. As part of the publication ethics, it is the responsibility of the Editorial Board to ensure that the articles published are original works of the authors and are not plagiarized or copied from other scholarly works. The Editorial Board shall strongly investigate in coordination with the proper authorities, any accusation of publication misconduct prior to and after publication and to take measures to contact institutions or funders of authors if needed. If evidence of misconduct such as plagiarism and submission of previously-published articles is clearly found, the necessary steps shall be taken to correct the scientific record which means issuing a correction or retracting the articles from circulation. The Institutional Ethics Review Committee is responsible in safeguarding the rights, safety, and well-being of all research participants, whether human or non-human. The following are the policies and ethics of publications for authors, editors and peer reviewers.

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- ensure that the material is taken from other sources (including their own published writing) the source is clearly cited and that where appropriate permission is obtained
- ensure that the work does not infringe on any rights of others, including privacy rights and intellectual property rights
- ensure that their data is true and not manipulated
- safeguard data as their own or that they have permission to use data reproduced in their paper
- adhere to all research ethics guidelines of their discipline.
- contact the Editor to identify and correct any material errors upon discovery, whether prior or subsequent to publication of their work
- ensure that the authorship of the paper is accurately represented, including ensuring that all individuals credited as authors participated in the actual authorship of the work and that all who participated are credited and have given consent for publication

Editors should:

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- oversee and act to enforce those policies as needed in a fair and consistent manner
- ensure the confidentiality of the review process
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- work with authors, reviewers, and Editorial Board members as necessary to ensure they are sufficiently advised regarding their journals' ethics and publishing policies and that the journal's stewardship on ethical matters is fair, unbiased, and timely.

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- judge objectively the quality of the research reported and respect the intellectual independence of the authors. In no case is personal criticism appropriate.
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- point out relevant published work that has not been cited by the authors. Any statement that an observation, derivation, or argument had been previously reported should be accompanied by the relevant citation.
- call to the editor's attention any substantial similarity between the manuscript under consideration and any published paper or manuscript submitted concurrently to another journal.
- treat a manuscript sent for review as a confidential document. It should neither be shown to nor discussed with others except, in special cases, to persons from whom specific advice may be sought; in that event, the identities of those consulted should be disclosed to the editor.
- not use or disclose unpublished information, arguments, or interpretations contained in a manuscript under consideration, except with the consent of the author.

The Publication Process

The publication process starts from the time the manuscript is received by the Research Office until the manuscript is peer-reviewed and accepted for publication. The LCC Journal follows the following publication process:

Step 1. Submission of the Manuscript

1.1. The author(s) shall submit the manuscript to the Editorial Board following the given institutional publication format.

Step 2: Preliminary Review by the Editorial Board

2.1. The manuscript should be reviewed by Editorial Board to ensure that the content, grammar and plagiarism are properly checked.

Step 3: Peer-Review Process

All manuscripts that passed the preliminary review by the Editorial Board will undergo the peer-review process. Note that only the manuscript that has the approval of the Editorial Board shall proceed to the review process. The following process applies:

- a. Submission of the manuscript and proof of approval (Peer-Review Form) to the Internal Referee (expert in the discipline).
- b. Author revises the paper according to the Internal Referee’s suggestions.
- c. Re-submission of the revised manuscript by the author to the Internal Referee, until approves.
- d. Endorsement of the reviewed manuscript to the External Referee (expert in the discipline)
- e. Author revises the paper according to the External Referee’s suggestions.
- f. Editor-In-Chief reviews the manuscript if the author follows the External Referee’s suggestions.
- g. Editor-In-Chief sends the manuscript to the External Referee, until approves.
- h. Author sends the final paper to the Institutional Ethics Review Committee for the review of ethical standards.
- h. Editor-in-chief does the final round of the manuscript review.

All manuscripts undergo one or more rounds of review depending on the recommendations of the peer reviewers. After each round, the author(s) must modify their submissions in line with the reviewers’ comments and this process is repeated until the peer reviewers and the Editor are satisfied and the manuscript is accepted for publication.

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**BENEFITS AND LIMITATIONS OF BLENDED MODALITY IN SELECTED
SECONDARY SCHOOLS IN THE DIVISION OF LIPA CITY**

JEFFERSON M. ADAYA

ABSTRACT

This study aimed to assess the benefits and limitations of blended modality of the secondary schools in the Division of Lipa City during the school year 2020-2021.

The research design that was used in this study was the combination of the descriptive and correlation method of research. The subjects of the study are the teachers of six (6) senior high schools in the Division of Lipa City. Population sampling procedure was used in this study. 88 teachers were used as respondents of the study.

The prepared questionnaire was utilized as the main data gathering instrument. The first part of the questionnaire covered the students' level of academic performance during the implementation of blended modality in schools. The second part answered the assessment of teachers of the implementation of blended modality in terms of benefits and limitations. It was revealed that the students in general are performing in the average level during the implementation of blended modality. It was also found out that the respondents' assessment on the benefits and limitations of blended modality in terms of pedagogical practice, ethical considerations, logistics and resource support, and delivery were to the great extent. Also, the responses of the teachers on benefits and limitations of blended modalities in terms of pedagogical practice, ethical considerations, logistics and resource support, and delivery have no significant differences. This then hoped that the proposed measure to strengthen the quality of the implementation of blended modality be considered.

Keyword : Benefits, Limitations, Blended Modality

INTRODUCTION

The current health crisis due to the corona virus disease pandemic in the country impact practically all areas of activity, but its effect has been particularly strong in teaching and learning. The pandemic has shaken up the landscape of education worldwide: maintaining in-class teaching with social distancing, creating blended learning, limitation of students in campus, or moving to online instruction (Hodges, Moore, Lockee, Trust, & Bond, 2020).

As a response to the need to continue education amid the restrictions posed by the COVID-19 crisis, the Philippines through the Department of Education (2020) collaboratively developed the BE-LCP for the school year 2020-2021. Educational institutions came out with remote learning as an alternative solution. The immediate action and strategy aim to mitigate the closure while continuously delivering quality education. Unlike transitions from face-to-face teaching to blended, online or flipped classroom in the past, changes in emergency remote teaching –a temporary shift of instructional delivery to an alternate remote delivery mode due to crisis circumstances– happen suddenly and in an unplanned way.

In Lipa City, the provision of learning resources focuses mainly on the utilization of blended learning modality wherein there is the utilization of contextualized learning materials, digitization of learning materials and mobilization of PIVOT learning materials to the schools through LRMS or through in-house printing and distribution of printed materials to the barangays.

Blended learning is defined as form of learning that utilizes both online and face-to-face instruction which still follows a formal education program provided by a school (Staker and Horn, 2012). The most notable feature is the addition of online learning to enhance face-to-face instruction. This enables the efficient integration of technology and the curriculum. However, similar to other teaching and learning approaches, blended learning also requires a pedagogical fit for it to be optimally utilized. This implies that teachers must be able to seamlessly find the link between their desired

curricular goals and the practices that they employ. Without such fit, regardless of how sophisticated an approach is, it would prove to be impractical.

The quality of electricity access and technology access has an implication on the current options one can select. Some modalities of learning delivery can or cannot be possible with or without access to one of these two resources, thus, it is practically suggested that a remote learning approach combining print modular learning and television- and radio-based learning will be the safest option.

Print modular learning is a remote learning delivery mode that uses the print module. A module is an instructional material that includes information about a topic, focus on learning activities, and culminate in some assessment to demonstrate understanding (Sweet, 2020).

Television- and radio- based learning is another remote learning delivery mode. This remote learning delivery mode using low technologies has been recently applied in the remote parts of a country in which students learn lessons ia radio and television at their homes (Omar, 2020). Given that the country has well established traditional broadcast media networks, this mode will complement efforts in using digital programs to deliver instruction (Arcilla, 2020). Although, it requires electricity access and low technologies such as television and radio. It demands a minimal amount of direct supervision from an adult or a parent, especially for older learners.

Synchronous and asynchronous learning is also a remote learning delivery mode in which teaching may be delivered and learning may occur online using high technologies. Synchronous learning can be done online via live lectures, instant messaging, and virtual classrooms while asynchronous learning may occur through blog readings, recorded videos, or discussion boards (Lawless, 2020). However, a new survey reported that most students in the country least prefer online learning (Hernando-Malipot, 2020).

This requires electricity access and technology and internet access although it needs a moderate amount of supervision from an adult or a parent for younger learners

and minimal for older learners.

The sudden shift to online learning created a hot debate in the Philippines citing the poor living conditions of the learners. Magsambol (2020) cites an obvious gap between those who can and cannot afford the resources to avail the new education platform. The general condition of children in the public school system sends a message of inequality with the DepEd's mantra 'no child left behind.' However, learning cannot be cancelled as much as to drive the economy. This led to a tighter measure for education institutions in sustaining its operations despite the impending risk.

As an educator there has been an ample of benefits that were discovered in the utilization of blended modality. One of which is the accomplishment of reports and outputs and attending classes in the comfort of one's household. Yet, the internet connections and compatible gadgets poses a problem to some. These could have been a little challenging and there are more which were only realized during the full implementation of the learning modality.

The present study is an exploration of the benefits and limitations when employing blended learning in schools. Understanding these can better equip school heads with coming up with more relevant programs for their schools and teachers. Teachers can also avoid the pitfall of simply employing blended learning without gauging the readiness of their students for such approach.

METHODOLOGY

The researcher used the combination of the descriptive and correlation method of research. In the process, the data gathered, based from the problems framed, were given the appropriate interpretation and analysis.

The study covered the selected secondary schools in the Division of Lipa City which utilizes blended learning modality. Schools were identified through the Schools Division Office.

Purposive sampling was used in this research to identify the respondents of this study. Particularly, Senior High Schools that offer blended learning modalities from the Division of Lipa City were considered in the study.

The populations of the study were the teachers at the respondent schools from the secondary schools in the Division of Lipa City. Grades students were used as the basis of the secondary data gathered in this study.

The number of teachers in San Celestino INHS were 17, San Isidro INHS is 10, Lumbang INHS is 11, Lipa Science INHS were 6, Pinagkawitan INHS is 13, and lastly the Fernando Airbase INHS is 31, with the total of 88 respondents teachers in the said schools.

RESULTS AND DISCUSSIONS

1. Students’ Level of Academic Performance during the Implementation of Blended Modality in Schools

Table 1
Students’ Level of Academic Performance during the Implementation of Blended Modality in Schools

Academic Performance	Frequency	Percentage	Rank
93 - 100 (Mastery)	22	7.72	4
87 - 92 (Proficient)	50	17.54	3
81 - 86 (Developing)	133	46.67	1
75 - 80 (Beginning)	80	28.07	2
Total	285	100	
Lowest Grade	75	Beginning	
Highest Grade	96	Mastery	
Mean Grade	83.93	Developing	

As stated in the table, the developing grade of 81 - 86 obtained the highest frequency count of 133 or 46.67% at rank 1 while the mastery grade of 93 - 100 made the least frequency count of 22 or 7.72% at rank 4.

Based on the result, it could be gleaned that the students in general are performing in the developing level during the implementation of blended modality in schools. This is strengthened by the claim of Hipol (2020) that the eagerness of the

Department of Education to integrate approaches and strategies in teaching allow students to interact, collaborate, and explore beyond the knowledge that books and teachers can impart.

The lowest grade was 75 (fair), the highest was 96 (mastery) and the mean grade was 83.93 (developing). It could be noticed that the result revealed opposing outcome. There are students who perform beyond the average, while there are students who barely get 80 in the card. As Wivell and Day (2015) professed, students who already struggled in the face-to-face delivery struggled to adapt to the demands of the blended program.

2. Assessment of Teachers on the Benefits and Limitations of Blended Modality

2.1. Benefits

2.1.1. In Terms of Pedagogical Practice

Table 2
Assessment of Teachers on the Benefits of Blended Modality in Terms of Pedagogical Practice

Items	Teachers		
	WM	VI	R
<i>The blended modality...</i>			
1. Make the students experience the possibility to be both independent and autonomous in their learning.	3.19	GE	2
2. Give students the opportunity to study at their own pace.	3.40	VGE	1
3. Let the students process the information gained by constant self-reflection and checking their understanding, organizing their knowledge, and making connections with what they already know.	3.16	GE	3
4. Helps students learn with reorganize instructional strategies in order to be prepared for the next level of learning.	3.00	GE	4
5. Shows the students positive satisfaction and engagement of the lesson throughout the grade level.	2.99	GE	5
Composite Mean	3.15	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Low Extent (LE)
1.00 - 1.74, No Extent (NE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As seen in the table, the teacher-respondents assessed that students are given the opportunity to study at their own pace to the very great extent as evidenced by the highest obtained weighted mean of 3.40 and highest rank of 1. This is because teachers believe that the success of blended learning depends upon the ability of students to be self-reliant

and to work independently. This contention is supported by Pérez and Riveros (2014) who shared that blended learning program generally increase students’ autonomy and responsibility for their learning. Meanwhile, the said group of respondents rated students show positive satisfaction and engagement of the lesson throughout the grade level to the great extent with the least weighted mean of 3.99 and the least rank of 5.

2.1.2. In Terms of Ethical Considerations

Table 3
Assessment of Teachers on the Benefits of Blended Modality in Terms of Ethical Considerations

Items	Teachers		
	WM	VI	R
<i>The blended modality...</i>			
1. Fundamentally helps the lesson design to organize student engagement.	3.16	GE	5
2. Provides flexibility and suitability forms of assessment.	3.25	VGE	1.5
3. Opens learning focuses predominantly on academic integrity and honesty.	3.17	GE	3.5
4. Assesses students’ work and responsibilities ensure ethical behavior when it comes to assessment.	3.25	VGE	1.5
5. Maintains quality of learning and learning materials and ensuring that no academic fraud is being committed.	3.17	GE	3.5
Composite Mean	3.20	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Low Extent (LE)
1.00 - 1.74, No Extent (NE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As written in the Table 3, the teacher-respondents evaluated that blended modality provides flexibility and suitable forms of assessment and assessing students’ work and responsibilities ensure ethical behavior when it comes to assessment to the very great extent as shown by the highest weighted equal means of 3.25 and similar highest ranks of 1.5 This could be justified because teachers are inclined in the utilization of rubric in assessment, thus, subjective grading system has been minimized if not totally get rid of. The Ultranet and Digital Learning Branch of the Department of Education in Melbourne (2012) supported this claim when it stated that blended learning as the planned implementation of a learning model, integrates student-centered and traditional

in-class learning with other flexible learning methodologies using collaborative approaches in order to realize strategic advantages for the education system.

2.1.3. In terms of Logistics and Resource Support

Table 4
Assessment of Teachers on the Benefits of Blended Modality in Terms of Logistics and Resource Support

Items	Teachers		
	WM	VI	R
<i>The blended modality...</i>			
1. Provides more opportunities to a high number of students without the need for new classroom space.	3.22	GE	1
2. Gives students the opportunity to learn using online facilities to execute synchronous classes.	3.20	GE	2.5
3. Let the students experience quality learning materials highlighting the necessary learning competencies.	3.09	GE	4
4. Explores the students to a more diverse way of learning using online materials.	3.20	GE	2.5
5. Gives students the opportunity to interact with their teachers and to other learning community.	3.01	GE	5
Composite Mean	3.14	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Low Extent (LE)
1.00 - 1.74, No Extent (NE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As presented in the Table 4, the teacher-respondents perceive providing more opportunities to enroll a high number of students without the need for new classroom space to the great extent as evidenced by the highest obtained weighted mean of 3.22 with the highest rank of 1. This is because there are no face-to-face classes, thus, the necessity for buildings and classrooms are not considered in accepting students during enrolment. Contrary wise, the said group of respondents figured the idea of Education 2.0 is felt by all students in all areas to the great extent with the least weighted mean of 3.01 with the least rank of 5. The necessity for internet connection and all other gadgets necessary for blended learning become a clamor to every student enrolled. This was strengthened by

Chen and DeBoer (2015) who claimed that the most successful students were those who engaged more frequently with the online materials. The composite means of 3.14 signified that their assessment on the benefits of blended modality in terms of logistics and resource support were to the great extent..

2.1.4. In Terms of Delivery

Table 5
Assessment of Teachers on the Benefits of Blended Modality in Terms of Delivery

Items	Teachers		
	WM	VI	R
<i>The blended modality...</i>			
1. Promotes accessibility and flexibility in course design across learning spaces using modules.	3.18	GE	2.5
2. Let the students provided pre-lecture resources such as PowerPoint and pre-recorded videos to reduce their in-class cognitive load.	3.18	GE	2.5
3. Makes students receive quality education because teachers had proper training in the use of technology needed for learning dissemination.	3.19	GE	1
4. Makes parents the partners of teachers in education as home facilitators.	2.92	GE	5
5. Let the school maximize its resources, online and printed.	2.95	GE	4
Composite Mean	3.09	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Low Extent (LE)
1.00 - 1.74, No Extent (NE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As shown in Table 5, the teacher-respondents assessed that students receive quality education because teachers had proper training in the use of technology needed for learning dissemination to the great extent as given by the highest obtained weighted mean of 3.19 and highest rank of 1. Prior the implementation of blended learning, teachers are given extensive training in the delivery of instruction.

As Hipol (2020) proves that DepEd works to achieve outcome-based education as a response to the demand for 21st century teaching methodologies. Meanwhile, the

said group of respondents evaluated that parents have the capacity to facilitate the modular learning sessions for their children with the least weighted mean of 2.92 and the least rank of 5.

2.2. In Terms of Limitations.

2.2.1. In Terms of Pedagogical Practice.

Table 6
Assessment of Teachers on the Limitations of Blended Modality in Terms of Pedagogical Practice

Items	Teachers		
	WM	VI	R
1. Large class sizes leads to ineffective students' control, poor planning and assessment	2.98	GE	4
2. Learners are on different levels of participation online and offline.	3.21	GE	1
3. Learner practices influence their engagement and success in different learning contexts.	3.19	GE	2
4. Students were dragged out of classrooms, books and devices were maximized that halt academic engagement and sharing of thoughts.	2.97	GE	5
5. Students' academic performance cannot be measured fully due to limited interactions.	3.12	GE	3
Composite Mean	3.10	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Low Extent (LE)
1.00 - 1.74, No Extent (NE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As shown in Table 6, the teacher-respondents, found out that Learners are on different levels of participation online and offline to the great extent as shown by the highest weighted mean of 3.21 having the highest rank of 1. Teachers in the field witnessed that students' participation varies during online and offline encounter. This was supported by Shehla (2015) who stressed that face-to-face classes retain their significance despite the growth of online courses because they allow for direct and personal interactions and interactions between the teacher and the students. Teachers can also

undertake direct supervision and control over learning processes and activities through face-to-face sessions.

2.2.2. In Terms of Ethical Considerations.

Table 7
Assessment of Teachers on the Limitations of Blended Modality in Terms of Ethical Consideration

Items	Teachers		
	WM	VI	R
1. Issues around surveillance, consent, identity, confidentiality, and anonymity with regards to assessment and engagement.	3.01	GE	2
2. Necessity for clear goals and objectives of blended learning.	3.09	GE	1
3. Lack of institutional definition of blended learning causes some challenges.	2.90	GE	3
4. Lack of teachers' capacity to engage with blended learning increases the probability of misinterpreting the blended learning principles and practices.	2.77	GE	5
5. Psychological distance seemingly makes it easier to cheat among online learners.	2.82	GE	4
Composite Mean	2.92	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Low Extent (LE)
1.00 - 1.74, No Extent (NE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As given in Table 7, the teacher-respondents determined the necessity for clear goals and objectives of blended learning to the great extent which yielded the highest weighted mean of 3.09 with the highest rank of 1. This reveals that the respondents believed in the importance of laying down the cards and opening all access to information drive to enable everyone in the educational arena be informed about the inside out of this modality which is new to everyone. Staker (2012) strengthened that the educational system is currently in a period of transition, thus, to meet the challenges of blended

modality and to cater to individual needs, it has to explore new paths to achieve the goal of providing high-quality educational opportunities for all. Furthermore, teacher-respondents answered lack of teachers' capacity to engage with blended learning increases the probability of misinterpreting the blended learning principles and practices to the great extent which garnered the least weighted mean of 2.77 and least rank of 5.

This result implies that training as regards to blended learning modality is necessary to equip teachers with knowledge and skills of the blended learning principles and practices.

This is supported by Alebaikan&Troudi (2010) who professed that in blended learning environment, teachers should have at least the required knowledge and skills to mix the right blending in teaching and learning process.

2.2.3. In Terms of Logistics and Resource Support

Table 8
Assessment of Teachers on the Limitations of Blended Modality in Terms of Logistics and Resource Support

Items	Teachers		
	WM	VI	R
1. Lack of suitable infrastructure and access to technology.	2.92	GE	4
2. Lack of technological and computer skills.	2.88	GE	5
3. Affordability of students to engage to digital literacy in blended learning.	2.99	GE	1
4. Issues of access when dealing with economically disadvantaged students.	2.94	GE	2.5
5. Notion that blended learning needs considerable digital literacy and resources and is not for all.	2.94	GE	2.5
Composite Mean	2.93	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Low Extent (LE)
1.00 - 1.74, No Extent (NE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As seen in Table 8, the teacher-respondents agreed affordability of students to engage to digital literacy in blended learning to the great extent which gained the highest

weighted mean of 2.99 and the highest rank of 1. This is due the fact that the respondents are teaching in the public schools, thereby the existence of economically disadvantaged students is rampant that most of them are not physically, intellectually, and financially prepared. This was supported by Lalima and Dangwal (2017) that blended learning modality needs rigorous efforts, right attitude, handsome budget and highly motivated teachers and students for its successful implementation. Moreover, the said group of respondents assessed lack of technological and computer skills to the great extent which garnered the least weighted mean of 2.88 and least rank of 5. This implies that teachers are not ready of the transition. Prantosh (2012) supported this claim when he professed that teacher training programs both in-service and pre-service have to be reoriented to prepare teachers for blended learning approach.

2.2.4. In Terms of Delivery

Table 9

Assessment of Teachers on Limitations of Blended Modality in Terms of Delivery

Items	Teachers		
	WM	VI	R
1. Inequalities in access to computers, reliable high-speed internet, and the digital literacy and support required to take advantage of learning.	3.12	GE	3.5
2. Technical malfunctioning can bring an on-going class to a standstill and interrupt the learning process.	3.14	GE	2
3. Parents/ guardians lack background to help and assist their children in module activities.	3.12	GE	3.5
4. Students needed encouragement to develop the confidence to adapt with the tools of learning offered on a blended approach.	3.17	GE	1
5. Establishing a network of communication among stakeholders such as parents for support at home pose a little problem.	3.10	GE	5
Composite Mean	3.13	GE	

As gleaned in Table 9, the teacher-respondents perceived that students needed encouragement to develop the confidence to experiment with the tools of learning offered on a blended approach to the great extent which made the highest weighted mean of 3.17 and the highest rank of 1. This implies that students are apprehensive of the utilization of blended learning tools because of their lack of knowledge in manipulating them perhaps because teachers lack knowledge as well. Castelo (2020) supported this because he believes that many Filipino teachers are new to blended learning and have not formally trained. On the contrary, the said group of respondents assessed establishing a network of communication among stakeholders such as parents for support at home pose a little problem to the great extent which garnered the least weighted mean of 3.10 and least rank of 5. Parents feelings towards blended learning is mixed that this poses a little problem to teachers. Selwyn et.al (2011) professed that some parents feel more connected to their child's schoolwork while others see this as an additional burden.

CONCLUSIONS

Based on the findings of the study, the following conclusions were made:

1. Students perform at the average level during the implementation of the blended learning modality.
2. Both students and teachers experience blended learning modality's benefits and drawbacks.
3. There is no significant difference between the responses of teachers in their assessment of the benefits and limitations of blended learning modality.
4. Students' academic performance is affected by the transition of learning modality.
5. There is a proposed measure that may be undertaken to strengthen the quality of the implementation of blended modality.

RECOMMENDATIONS

From the drawn conclusions, the following recommendations are hereby forwarded:

1. Teachers must improve their teaching strategies in order to improve students' academic performance.

2. The Department of Education may consider the provision of webinars to teachers and students for them to have an in-depth understanding of the blended learning modality.

3. Teachers may bring out their necessities to the higher authorities with the hope of addressing them for better delivery of instruction.

4. DepEd must strengthen information dissemination about blended learning modality to increase the knowledge of stakeholders.

5. The proposed measure to strengthen the utilization of blended learning modality be considered for implementation.

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**THE IMPLEMENTATION OF BLENDED LEARNING MODALITIES IN
SELECTED SCHOOLS IN LIPA CITY: INPUTS TO THE SCHOOL
IMPROVEMENT PLAN**

ANNA CLARISSA S. TAPALLA

ABSTRACT

This study determined the extent of assessment and challenges of school heads and teachers in implementing blended learning modality in terms curriculum management, learning delivery, learning resources, and assessment.

The respondents were school heads and teachers in selected schools in Lipa City in the Division of Lipa City. Blended learning represents a combination of Modular Distance learning (MDL), which allows learners to use self-learning modules (SLMs) in print, and Online Distance Learning (ODL), in which engaging learners' active participation through the use of various technologies accessed through the internet. Mastering ICT training and webinars and the creation and production of learning materials are challenging issues for school personnel. Resource utilization and flexibility for modular and online distant learning modes are among the teachers' coping mechanisms for dealing with challenges.

From the findings of the study, School Improvement Plan inputs were proposed to support the implementation of Blended Learning Modality.

Keywords: blended learning, printed modular distance learning, online distance learning

INTRODUCTION

The education system is one of the agencies profoundly affected by a coronavirus. To protect students from COVID19, teachers all over the country accepted the task from traditional teaching to new normal. It has allowed teachers and students to explore multiple learning delivery modalities.

Following DepEd Order (DO) No. 012, s.2020, "Adoption of the Basic Education Learning Continuity Plan (BE-LCP) for School Year 2020-2021 in the light of the COVID-19 Public Health Emergency," Department of Education (DepEd) employs multiple Learning Delivery Modalities (LDMs) to ensure that learners continue to have learning opportunities while protecting the health and safety of both personnel and learners. The learning delivery modalities that schools can adopt can be one or a combination of face-to-face, distance learning, blended learning, and homeschooling, depending on the COVID 19 restrictions and the specific circumstances of the learner in the school or region. (DepEd LCP)

Blended learning, where two or more alternative learning delivery modalities are "blended" together, is among the options offered by the Department of Education (DepEd) to ensure education continuity amid the pandemic. (Malipot, 2020). Under blended learning, students are taught using various means, including using online, television, radio, and printed materials. (Mendenilla, 2020). The sudden shift to blended learning led teachers to adjust their teaching plans, teaching styles, and assessment methods.

In Lipa City, a combination of Printed Modular Distance Learning (MDL) and Online Distance Learning (ODL) is the type of blended learning commonly used in schools because it is the parents' and learners' choice to use these modalities based on the survey conducted among the schools in Lipa. However, this will not involve TV/Radio-Based Instruction because the students learn better if they interact more with the teacher rather than watching TV or listening to the radio.

Online Distance Learning (ODL) engages the teachers and the learners who are physically remote from each other but are interconnected online. It needed a network that could make this possible. It means that both the teachers and learners must have any of the following: laptops, desktop computers, smartphones, and internet connectivity. The teacher and the learners can have an interface and discussion in real-time. Moreover, it can be conducted through messenger, live chat, google meet, zoom, etc. The presence of the teacher is expected to facilitate this modality. Learners can download materials from

the internet. It is effectively practiced using a learning management system or related techniques. DepEd Commons and LR Portal fall into this category.

Modular learning is the most popular type of Distance learning. In the Philippines, this learning modality is currently and mainly used by all public schools because, according to a survey conducted by the Department of Education (DepEd), learning through printed modules emerged as the most preferred distance learning method of parents whose children are enrolled this academic year. (Bernardo, 2020)

Under DepEd's Printed Modular Distance Learning (PMDL) system, students are provided with self-learning materials (SLMs). Teachers will be giving students SLMs per quarter. That will mean students will be receiving four sets of SLMs for one whole academic year.

Education had to be conducted remotely using modular and digital platforms, as public and private schools were closed to protect the health of learners and educators. (Montemayor, 2020). The Philippines is far too unprepared for the sudden proposal of online learning. While DepEd has pushed online learning for private schools and ensured all students would be able to avail themselves, they cannot do the same for public schools. Families can benefit from private teachers and courses, but public schools will not be able to support online learning for most of their students. (Kritz, 2020)

Various private sectors involved in education struggled when face-to-face classes were restricted due to the pandemic. The school introduced a learning management system that allows students to collaborate more with their teachers on the online platform in preparation for the learning setup. As online classes can be very taxing for students nowadays, the school developed its learning program so that students can carry out online lessons throughout the day. (Savilla, 2021)

The researcher chose the study of the implementation of blended learning because the threat of the virus stopped schools from functioning, resulting in schools using different learning modalities. The sudden advent of modalities is abrupt, and everybody is not yet ready for the new changes. Given that, blended learning, which is

the most suitable and feasible modality, is implemented. The implementation of blended learning is not easy because there are challenges in instructions, learning delivery, learning resources, and assessment.

The researcher wanted to describe how the blended learning modality was implemented in Lipa City. The implementation of a blended learning teaching style hopes to understand its potential benefits to school heads and teachers. It is also to identify whether school heads' and teachers' achievement and participation in blended learning are better than in face-to-face learning and determine whether there is a positive correlation between the school heads and teachers' involvement and achievement. It is also for schools that have not yet implemented blended learning to get ideas and plans to use if they will conduct blended learning.

This research aims to develop improvement plans that would ease the particular challenges experienced by school heads and teachers for them to maximize the learning of competencies fully. It is also to provide a quality basic education that is accessible and responsive to the new normal.

METHODOLOGY

The research design to be used in the study was a sequential explanatory research design. Edmonds & Kennedy (2017) defined that the explanatory-sequential approach is sequential and is used when the researcher is interested in following up the quantitative results with qualitative data.

The target population for this study comprised five (5) school heads and forty (40) teachers in selected public schools in Lipa City. The research sample size was forty-five (45) respondents from public schools in Lipa City. To clearly show the respondents who participated in the study, below is the distribution of respondents.

A questionnaire was used as the data gathering instrument in this study for quantitative and semi-structured questions were used for qualitative. Being in a pandemic situation, the researcher used an online survey to collect data to ensure the safety of the

respondents and the researcher. This instrument was suitable for research because it provides a relatively inexpensive, fast, and efficient way to get large amounts of information from many people.

RESULTS AND DISCUSSIONS

1. Extent of Assessment of the School Heads and Teachers on the Implementation of Blended Learning Modality of Selected Schools Lipa City

Table 1
Extent of Assessment of the School Heads and Teachers on the Implementation of Blended Learning Modality of Selected Schools Lipa City in Terms of Curriculum Management

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
1. Planning of learners' activities based on the needs	3.80	VGE	3	3.38	VGE	3
2. Adaption of programs and activities to learners' needs	4.00	VGE	1.5	3.40	VGE	2
3. Attending seminars and trainings to be more technologically ready	4.00	VGE	1.5	3.45	VGE	1
4. Well oriented about the policies and instructions to ensure that everyone is properly informed and guided	3.60	VGE	4	3.23	GE	4
5. Well acquainted with the concept of blended learning and fully trained and skilled to blend both modes.	3.40	VGE	5	2.93	GE	5
Composite Mean	3.76	VGE		3.28	VGE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 - 3.24, Great Extent (GE)
1.75 - 2.49, Some Extent (SE)
1.00 - 1.74, Very Little Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As seen in the table, the school head-respondents assessed adaption of programs and activities to learners' needs and attending seminars and training to be more

technologically ready to a very great extent as evidenced by the highest obtained equal-weighted means of 4.00 and highest ranks of 1.5. According to school heads, they attend webinars about ICT. It is vital to have more training and seminars specifically about technology since the mode of teaching and learning nowadays involves technology.

1.2 In Terms of Learning Delivery

Table 2
Extent of Assessment of the School Heads and Teachers on the Implementation of Blended Learning Modality of Selected Schools Lipa City in Terms of Learning Delivery

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
Printed Modular						
1. Key concepts and topics on modules are complete and deepened.	3.40	VGE	1	3.15	GE	4
2. Activities and exercises in the modules are suited to the multiple abilities of learners	3.00	GE	4	3.10	GE	5
3. Instruction is clearly outlined for students and the language used is simple and understandable.	2.80	GE	5	3.18	GE	3
4. Tasks are simple to complete but still require analysis.	3.20	GE	2.5	3.28	VGE	1
5. The degree of difficulties for different type of learners are considered	3.20	GE	2.5	3.25	VGE	2
Composite Mean	3.12	GE		3.19	GE	
Online Mode of Delivery						
1. Give provision for Online Reading Assessment	3.40	VGE	3	3.35	VGE	3
2. Increase teacher -to-student interaction and discussion	3.20	GE	5	3.25	VGE	4.5
3. Answer queries of the students and parents thru social media accounts	3.80	VGE	1	3.65	VGE	1
4. Create online quizzes and activities which can be monitored in real-time	3.40	VGE	3	3.25	VGE	4.5
5. Provide some educational websites or apps that students can use (e.g. youtube educational videos)	3.40	VGE	3	3.45	VGE	2
Composite Mean	3.44	VGE		3.39	VGE	

As written in Table 2, in terms of printed modular learning delivery, the school head-respondents evaluated key concepts and topics on modules are complete and deepened to a very great extent, as shown by the highest weighted mean of 3.40 and highest rank so 1.

1.3 In Terms of Learning Resources

Table 3
Extent of Assessment of the School Heads and Teachers on the Implementation of Blended Learning Modality of Selected Schools Lipa City in Terms of Learning Resources

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
Printed Modular						
1. Appropriate selection of lesson content	2.60	GE	3	3.30	VGE	2.5
2. Complete and appropriate learning activities	3.00	GE	1	3.33	VGE	1
3. Additional reference/ supplementary materials for distribution	2.60	GE	3	3.30	VGE	2.5
4. Availability of supplies needed to prepare and print the learning modules	2.60	GE	3	3.25	VGE	4
5. Quality assurance in the design and development of modules	2.40	GE	5	3.18	GE	5
Composite Mean	2.64	GE		3.27	VGE	
Online Mode of Delivery						
1. Access to the internet connectivity	3.20	GE	1.5	3.08	GE	3
2. Quality of connection at the school	2.60	GE	5	2.75	GE	5
3. Availability of digital device/s such as laptops, tablets, smartphones, and desktop computers to access the lessons	3.00	GE	3.5	3.33	VGE	1
4. Availability of various online tools and resources to differentiate instruction	3.00	GE	3.5	3.18	GE	2
5. Easy-access to educational platform like DepEd Commons and LRDMS.	3.20	GE	1.5	3.30	GE	4
Composite Mean	3.00	GE		3.13	GE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 – 3.24, Great Extent (GE)
1.75 – 2.49, Some Extent (SE)
1.00 – 1.74, Very Little Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As presented in Table 3, in terms of printed modular learning resources, the school head-respondents rated complete and appropriate learning activities to a great

extent, as evidenced by the highest obtained a weighted mean of 3.00 and highest rank so 1. With regard to the teacher-respondents, they evaluated to a very great extent complete and appropriate learning activities to a great extent which yielded the highest weighted mean of 3.33 and the highest rank of 1.

1.4 In Terms of Assessments

Table 4
Extent of Assessment of the School Heads and Teachers on the Implementation of Blended Learning Modality of Selected Schools Lipa City in Terms of Assessment

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
Printed Modular						
1. Using of rubrics to assess learning outcomes	3.20	GE	5	3.40	VGE	3
2. Checking and evaluating students' answers in the modules	3.80	VGE	1	3.58	VGE	1
3. Timely and appropriate monitoring and feedback for consultation and intervention	3.60	VGE	3	3.35	VGE	4
4. Assessing the learning progress through summative exercises and performance tasks.	3.60	VGE	3	3.53	VGE	2
5. Making some interventions when necessary with the use of Individual learning Monitoring Plan	3.60	VGE	3	3.33	VGE	5
Composite Mean	3.56	VGE		3.44	VGE	
Online Mode of Delivery						
1. Regularly reviewed and updating of assessment	3.00	GE	2	3.45	VGE	2
2. Get students involved in assessing their learning	2.80	GE	3.5	3.40	VGE	3
3. Increased opportunities for learners to act on feedback	2.80	GE	3.5	3.35	VGE	4.5
4. Use available additional assessment tools (e.g., quiz, activities).	3.20	GE	1	3.48	VGE	1
5. Test to be conducted in a time-restricted manner with the learners being monitored live via applicable online platform (e.g. via zoom)	2.60	GE	5	3.35	VGE	4.5
Composite Mean	2.88	GE		3.41	VGE	

Legend: 3.25 - 4.00, Very Great Extent (VGE)
2.50 – 3.24, Great Extent (GE)
1.75 – 2.49, Some Extent (SE)
1.00 – 1.74, Very Little Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As seen in Table 4, in terms of printed modular assessment, the school head-respondents decided on the item checking and evaluating students' answers in the modules to a very great extent as shown by the highest computed weighted mean of 3.80 and highest rank so 1.

2. Challenges Encountered by School Heads and Teachers in the Implementation of the Blended Learning Modality

2.1 In Terms of Curriculum Management

Table 5
Challenges Encountered by School Heads and Teachers in the Implementation of the Blended Learning Modality in Terms of Curriculum Management

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
1. Not ready to adapt new changes	2.20	D	3	2.30	D	2
2. Lack of basic computer/digital skills	2.40	D	1	2.20	D	4.5
3. No training on how to create a quality type of learning modules	2.20	D	3	2.25	D	3
4. Inadequate professional development and training in ICT	2.00	D	5	2.20	D	4.5
5. Difficult to cope with new teaching and technology skills.	2.20	D	3	2.38	D	1
Composite Mean	2.20	D		2.27	D	

Legend: 3.25 - 4.00, Strongly Agree (SA)
2.50 - 3.24, Agree (A)
1.75 - 2.49, Disagree (D)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As shown in Table 5, the school head-respondents disagreed on the lack of basic computer/digital skills, evidenced by the highest obtained weighted mean of 2.40 and the highest rank of 1. According to school heads, they disagreed on the item's lack of basic computer/digital skills because they were equipped with skills for online teaching. It can be understood from these findings that one primordial difficulty regarding curriculum management in the course of blended learning implementation is the adjustment in the

ICT skills needed to be acquired by the teachers who were used to the traditional mode of teaching inside the four corners of the classroom.

2.2 In Terms of Learning Delivery

Table 6
Challenges Encountered by School Heads and Teachers in the Implementation of the Blended Learning Modality in Terms of Learning Delivery

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
Printed Modular						
1. Late claiming of modules	2.80	A	2.5	2.80	A	3
2. Irresponsible students and parents	2.60	A	4.5	2.65	A	4
3. Personal delivery of modules may cause health-risks	3.20	A	1	3.05	A	1
4. Support is difficult to achieve from parents.	2.60	A	4.5	2.58	A	5
5. Failure to follow the schedule set for the submission of modules	2.80	A	2.5	2.85	A	2
Composite Mean	2.80	A		2.79	A	
Online Mode of Delivery						
1. Lack of student interaction	2.80	A	2.5	2.50	A	1
2. Fear and discomfort with technology	2.60	A	4.5	2.45	D	2
3. Unfamiliar with the use of technology	3.20	A	1	2.33	D	5
4. Lack of technical support when problems occur	2.60	A	4.5	2.40	D	4
5. Can't sustain students' engagement in the online learning	2.80	A	2.5	2.43	D	3
Composite Mean	3.44	A		2.42	D	

As shown in Table 6, in terms of the challenges encountered by the school heads and teachers on printed modular learning delivery, the school head-respondents agreed that personal delivery of modules might cause health risks, as shown by the highest weighted mean of 3.20 and the highest rank so 1. This implies that it would pose an additional burden for the school personnel to physically bring the modules for the school heads and teachers, which equally proposes health and safety risks of contracting the

virus. This goes without saying that increased interactions with the stakeholders from various sources may increase the peril of acquiring the virus.

2.3. In Terms of Learning Resources

Table 7
Challenges Encountered by School Heads and Teachers in the Implementation of the Blended Learning Modality in Terms of Learning Resources

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
Printed Modular						
1. Lack of printing materials/scarcity of supplies	2.40	D	4.5	2.48	D	5
2. Expensive reproduction of printed materials.	2.40	D	4.5	2.58	A	4
3. Takes so much time to prepare and print the modules	3.00	A	1	3.23	A	1
4. Errors in modules due to rushed preparations	2.80	A	2	2.73	A	3
5. Insufficient time and assistance in preparing and printing the modules and additional learning materials	2.60	A	3	2.90	A	2
Composite Mean	2.64	A		2.78	A	
Online Mode of Delivery						
1. Lack or limited access to the internet.	3.00	A	1.5	2.83	A	1
2. Limited access to the computer, laptops, and other gadgets.	3.00	A	1.5	2.65	A	2.5
3. Use of technology is “time-consuming” in preparing materials.	2.40	D	5	2.65	A	2.5
4. Poor maintenance of available or existing ICT resources	2.60	A	4	2.63	A	4.5
5. Lack of technical support when problems occur	2.80	A	3	2.63	A	4.5
Composite Mean	2.76	A		2.68	A	

Legend: 3.25 - 4.00, Strongly Agree (SA)
2.50 - 3.24, Agree (A)
1.75 - 2.49, Disagree (D)
1.00 - 1.74, Strongly Disagree (SD)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As gleaned in Table 7, as for the challenges encountered by the school heads on printed modular learning resources, the school heads agreed that it takes so much time to prepare and print the modules, which got the highest weighted mean of 3.00, the highest rank of 1. This follows an empirical inference that school heads observed the rigorous effort of the school personnel in the reproduction and photocopying of the materials before the weekly distribution. The voluminous materials being copied and sorted weekly is a challenge for teachers and other support staff of the school.

2.4. In Terms of Assessments

Table 8
Challenges Encountered by School Heads and Teachers in the Implementation of the Blended Learning Modality in Terms of Assessment

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
1. Low scores of students	2.60	A	3.5	2.63	A	5
2. Inequities in assessment	2.60	A	3.5	2.65	A	4
3. Testing may raise concerns about cheating	3.00	A	1.5	2.95	A	2
4. Difficulty in validating students' performance	2.40	D	5	2.85	A	3
5. Written tasks of the learners are being addressed by the parents.	3.00	A	1.5	2.98	A	1
Composite Mean	2.72	A		2.81	A	

Legend: 3.25 - 4.00, Strongly Agree (SA)
2.50 - 3.24, Agree (A)
1.75 - 2.49, Disagree (D)
1.00 - 1.74, Strongly Disagree (SD)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

As gleaned in Table 8, in terms of the challenges encountered by the school heads on assessment during the implementation of blended learning modality, they agreed that testing might raise concerns about cheating, and written tasks of the learners are being addressed by the parents, with the highest equal-weighted means of 3.00 and equal ranks of 1.5. On the part of the teacher-respondents, they agreed that the written

tasks of the learners are being addressed by the parents, which gained the highest weighted mean of 2.98 and the highest rank of 1.

3 Coping Strategies of Teachers with the Challenges Encountered in the Implementation of Blended Learning

Modality	Transcript	Emerging Concepts	Sub-Categories	Categories	Theme
Printed Modular Distance Learning Modality	Teachers work not only during school days but also at night and on weekends to finish the tasks.	Extended Hours of Work	Time Management	Behavior	Resources Utilization
	Giving extra time to print the needed modules.				
	It eats much of our time to print modules.				
	Attending different webinars	Extended Support-seeking	Team Management	Collaboration	
	Asking the assistance of principals, co-workers and parents				
By means of instructional supervision					
Online Distance Learning Modality	Teachers should accept changes	Embracing Change	Adaptation	Resilience	Flexibility
	Teachers are known to be flexible, resourceful and adaptable				
	Accept and adjust to the new normal				
	Attending webinars about ICT	Familiarizing Technology	Learning	Innovation	
	The teacher continues to learn about ICT in order to better implement online learning				
be patient enough on the internet connectivity					

From the qualitative responses of the school heads and educators regarding their coping strategies with the challenges encountered in the implementation of blended learning, the answers were analyzed using thematic analysis to illustrate the underscoring.

It can be gleaned from the table that the teachers' and the school heads' coping mechanisms regarding modular learning are founded on resource utilization, which integrates the physical supplies, time, and support that they can get from the school. The main themes that were identified from the qualitative responses involved management of their time ("Teachers work not only during school days but also at night and on weekends just to finish the tasks for this kind of learning modality" -Teacher A) and the team in making a culture of dynamic behavior in preparing the learning materials and the collaboration among the school personnel to achieve one and united learning delivery. ("Asking the assistance of principals, co-workers, and parents -Teacher B)

CONCLUSIONS

In addressing the objectives presented in the current study, the researcher concluded that teachers and school heads benefited a lot from adequate training and skills development webinars. These webinars can strengthen their ICT skills and the production of learning materials.

The researcher also concluded that teachers and school heads are continuously coping with the challenges that arise from time to time. They are utilizing resources to the fullest to monitor their students' progress. They are also developing their flexibility to reach out to their students and provide the virtual teaching they need by using the modules.

RECOMMENDATIONS

Considering the significant findings revealed and conclusions drawn in this study, the researchers suggested the following recommendations:

1. For the Schools Division, District Offices, and schools, they should develop alternative plans for different challenges to have a strong foundation of teaching approaches and skills to be utilized by the school heads and teachers in teaching and learning writing.

2. For school heads and teachers, they should reinforce the conduct of training and webinars to equip them with the current trends of new normal education and to adapt to the changes of times.

3. For the students, they should maximize the use of the online platform and should develop their motivation in self-study.

4. Furthermore, future researchers may also conduct studies similar to this present study to determine the other assessments and challenges in implementing blended learning so that such tendencies would not be detrimental but rather advantageous to school heads and teachers.

5. The proposed School Improvement Plan should be implemented to adapt the blended learning in schools in Lipa City fully.

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**LEVEL OF FINANCIAL LITERACY OF SELECTED BUSINESS OWNERS IN
THE FOURTH CONGRESSIONAL DISTRICT OF QUEZON**

MAR JONATHAN P. FLORES

ABSTRACT

This study was conducted to determine the level of financial literacy – particularly in accounting, costing, and budgeting – of selected business owners in the fourth congressional district of Quezon. The study also sought to identify the respondents' profile, such as age, sex, civil status, and the highest level of education, as well as their business profile, such as location, type, running capital, average monthly sales, and length of operation. This study also aimed to pinpoint respondents' difficulties controlling their businesses' financial aspects.

Data were gathered using a random sampling survey approach and the descriptive-quantitative research methodology. Self-made type validated questionnaires were utilized to collect the data for the study, and structured Likert was employed to analyze the results. From 11,658 local business owners, 372 samples were taken using the Raosoft calculator. The researcher employed mean, Kruskal Wallis H-Test and Shapiro Wilk W-Test to measure, analyze, and interpret the findings of the gathered data.

According to the statistical correlational analysis, there are no significant differences between the business owners' age, sex, civil status, and level of financial literacy. Hence, the related null hypothesis was accepted. However, there is a significant difference in their educational attainment and financial literacy. The most significant finding is that, according to statistical analysis of data, a business owner's level of financial literacy is correlated with how much money their company makes. It implies that the degree of financial literacy favorably affects the company's profit. As a result, a company cannot succeed without considering its owners' financial literacy.

Keywords: Financial Literacy, Accounting, Budgeting, Costing, Business Owners

INTRODUCTION

Financial literacy is defined by the International Network on Financial Education of the Organization for Economic Co-operation and Development (OECD/INFE, 2011) as "a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being."

In addition, the basic knowledge of financial literacy is an essential element that each people, not only entrepreneurs, need to understand. People throughout the world spend money based on their needs and wants regardless of their status in society. The capacity of people to spend money gives them the status they desire in the community they lived in. People work hard to earn money and sufficient background in financial literacy, therefore becomes not only a lesson but a necessity among those people who value the importance of better financial literacy in life. Around the globe, there are a number of higher education institutions that offer degrees in financial management and accountancy. People, depending on their interests, choose a program that they thought would give them a better understanding of financial literacy.

In contrast, financial illiteracy can lead to a multitude of financial problems and consequences, such as mental illness, stress, lower self-esteem and miserable experiences. Only 25% of Filipino adults have financial literacy, according to Manila Times (2015). A low level of financial literacy is widespread in developing and developed countries alike (Lusardi & Mitchell, 2011) as shown by a global financial literacy survey conducted by Klapper et al., (2015). Some Filipinos could not be financially literate, which would be detrimental to the country's economic growth. (Lucas, 2018). 4 out of 10 Filipinos have personal debt, which is an above-average percentage, according to a Manulife Financial Corporation survey conducted in the Philippines. Due to this situation, someone who lacks financial literacy will be unable to handle their personal debt effectively and will instead continue to amass it.

The importance of financial literacy for business success has been validated by numerous research. A lack of financial expertise has a negative effect on the company's future. According to Gonzalvo& Avila's 2019 study, business owners should follow the fundamental premise that good business is based on financial literacy and that excellent business increases competitiveness in a globalized society. The capacity to make wise financial decisions, household well-being, and business viability all benefit from financial literacy. Financial carelessness is a cost of a lack of financial literacy. The failure of the business would result from a lack of financial literacy. Financial literacy and a company's operational success are related.

The fourth congressional district of Quezon is the locale of the study which has composed of many micro businesses. According to the List of Business Owners in the said area as of 2022, there are 11658 businesses which were given permits to operate for the said year. Unfortunately, despite the large number of businesses, no research about the financial literacy of these business owners have been published. Each business owner should evaluate their knowledge, attitude, and conduct about financial literacy issues in order to ensure the survival and growth of their business.

On this premise, the researcher took a step forward in determining how aware in financial literacy are the business owners with stores and branches situated in the Fourth Congressional District of Quezon. Such that they would be able to prevent the various situations of being hooked to malpractice of managing their finances. Additionally, as a contribution of the researcher to those working in the business world, this study offers a proposed financial literacy program that would educate business owners on the benefits and significance of financial literacy.

METHODOLOGY

This study used a descriptive approach in order to determine the level of financial literacy among selected business owners in the Fourth Congressional District of

Quezon. Three hundred seventy-two (372) business owners in the Fourth Congressional District of Quezon were chosen as respondents using random sampling.

The questionnaire has four major parts and in form of five-point Likert-type scale to determine the degree or quality of answers. The first part (1) of the questionnaire measured the personal profile of the respondents, while the second part (2) measured the business profile of the respondents. Additionally, the third part (3) assessed the level of financial literacy of business owners in terms of accounting, budgeting, and costing. Meanwhile, the fourth and finally, the last part (4) determined the challenges encountered by the business owners in managing their financial resources.

To establish validity of the means of data collection, the survey questionnaire underwent proper validation process with the help of some research practitioners and experts in the field. The recommendations of these experts were taken into consideration in the finalization of the instrument. After the validation of the research instrument, the researcher advanced to pilot-testing among 20 similar respondents who are not included as respondents.

The collected data was collated, examined, and then presented in tables after the questionnaires had been retrieved and summarized. The following statistical techniques were used by the researcher to quantify the data: Cochran Formula, Frequency-Percentage Distribution, Weighted Average Mean, and Kruskal Wallis H-Test.

To answer the formulated questions, the researcher used the Cochran formula to get the number of samples from the total population. Frequency-Percentage distribution were used to present the findings on the personal and business profile of the respondents. Additionally, the respondents' level of financial literacy and the challenges they encountered in managing their financial resources were also determined using the weighted average mean. Lastly, Kruskal Wallis H-Test was used to measure the significant differences on the level of financial literacy when respondents were grouped according to personal profile.

RESULTS AND DISCUSSIONS**Part 1. The Personal Profile of the Respondents**

Table 1
Personal Profile of the Respondents

Personal Profile	Frequency	Percentage (%)	Rank
Age:			
Below 20	3	0.81	5
21-30	84	22.58	3
31-40	95	25.54	2
41-50	132	35.48	1
51 and above	58	15.59	4
Total	372	100.00	
Sex:			
Male	167	44.89	2
Female	205	55.11	1
Total	372	100.00	
Civil Status:			
Single	115	30.91	2
Married	241	64.78	1
Widowed	16	4.30	3
Total	372	100.00	
Highest Educational Attainment:			
Elementary	15	4.03	4
High School	128	34.41	2
Technical Vocational	57	15.32	3
College	154	41.40	1
Master's Degree	11	2.96	5
Doctorate	7	1.88	6
Total	372	100.00	

Table 1 presents the frequency and percentage distribution of the personal profile of the respondents of this study in terms of age, sex, civil status, and highest educational attainment.

In terms of age, it can be determined that the majority of respondents (35.48%) fall into the 41–50 age range, followed by the 31–40 age range (25.54%). However, it should be emphasized that the percentage of respondents who were 20 years of age or younger was only 0.81%. This shows that the majority of respondents are older adults. In this sense, older people tend to be more financially responsible and have higher levels of financial literacy among business owners. In this way, business owners' ages, which demonstrate greater responsibility in handling money, might be linked to their level of financial literacy. Wilson (2019) also discovered that older people's better financial literacy and experience levels helped to partially explain their normatively appropriate preferences for money-receiving sequences.

In terms of sex, female business owners accounted for 55.11% of the respondents, while men made up only 44.89%. The study by Angeles (2022), which demonstrated that women are more self-employed than men, supports this. It's interesting to note that, per IPSE.UK, self-employed women were more likely than self-employed men to choose aspects related to their personal circumstances and welfare, such as greater control over their schedules and flexibility with regard to childcare.

According to their civil status, the majority of respondents (54.78%) were married, followed by single individuals (30.91%), and widowed respondents (4.30%). A higher percentage of married people work for themselves, according to the same study by Angeles (2022), implying that individuals with more responsibilities need more revenue.

In terms of highest educational attainment, 41.40% were college graduate, followed by High School graduate with 34.41%. However, it can be noted that respondents with doctorate degree holder had 1.88%. According to the report, a higher percentage of business owners have college degrees. The study assumed that the majority of owners would see self-employment as the greatest alternative to unemployment due to a lack of employment opportunities. Baihaqqy et al. (2022) also found an important connection between education level and financial literacy knowledge, which affects

investors' financial decisions (Angeles, 2022). This suggests that those with higher education tend to be more financially literate.

Part 2. The Business Profile of the Respondents

Table 1
Business Profile of the Respondents

Business Profile	Frequency	Percentage(%)	Rank
Location:			
Alabat	14	3.76	7
Atimonan	74	19.89	2
Calauag	40	10.75	5
Guinayangan	15	4.03	6
Gumaca	52	13.98	4
Lopez	85	22.85	1
Perez	13	3.49	8
Plaridel	8	2.15	10
Quezon	10	2.69	9
Tagkawayan	61	16.40	3
Total	372	100.00	
Nature:			
Service	150	40.32	2
Merchandising	195	52.42	1
Manufacturing	27	7.26	3
Total	372	100.00	
Running Capital:			
P50,000.00 and below	130	34.95	1
P50,001.00-P150,000.00	113	30.38	2
P150,001.00-P300,000.00	54	14.52	3
P300,001.00-P450,000.00	26	6.99	5
P450,001.00-P600,000.00	10	2.69	6
P600,001.00 and above	39	10.48	4
Total	372	100.00	
Average Monthly Sales:			
P20,000.00 and below	93	25.00	2
P20,001.00 – P40,000.00	103	27.69	1
P40,001.00 – P60,000.00	52	13.98	4
P60,001.00 – P80,000.00	37	9.95	5
P80,001.00 – P100,000.00	23	6.18	6
P100,001.00 and above	64	17.20	3
Total	372	100.00	
Length of Existence:			
less than 1 year	37	9.95	4
1 to 5 years	145	38.98	1
6 to 10 years	105	28.23	2
11 to 15 years	45	12.10	3
16 to 20 years	18	4.84	6
21 years and above	22	5.91	5
Total	372	100.00	

Table 3 presents the frequency and percentage distribution of the business profile of the respondents of this study in terms of location, nature of business, running capital, average monthly sales, and length of existence.

In terms of the location of the respondents, majority of the respondents were from Lopez with 22.85%, followed by Atimonan with 19.89%. However, it can be noted that respondents from Plaridel had 2.69%. The result is due to the fact that the municipality of Lopez, as of 2022, remains to be the most populated municipality in the district. Additionally, Lopez has been referred to as the "Education Capital of the Province" because it is the location of four of the largest state universities in the country. This means that there are many students, thus, more demand from different goods and services. Finally, the DTI GOV.PH website states that Lopez had the most revenue in 2022, which serves as a proof why there were so many business transactions in the municipality.

In terms of the nature of the business, most of the respondents' businesses were classified as merchandising with 52.42%, followed by service with 40.32%. However, it can be noted that respondents' businesses that were classified as manufacturing had 7.26%. The ideal way to obtain expertise in business management is to launch a retail or merchandising business in the Philippines. Running a merchandising firm, in some way, doesn't require a lot of capital, and the risks involved are manageable. In the study conducted by Donthu&Gustafssin (2020), the COVID-19 pandemic outbreak's business closures, the majority of industry sectors have experienced unprecedented interruptions in business. Short-term issues that retailers and brands must overcome include those pertaining to human health and safety, the supply chain, the workforce, cash flow, consumer demand, sales, and marketing. But this pandemic encouraged a lot of people to explore commerce, particularly buy-and-sell, a kind of merchandising enterprise.

In terms of the running capital, most of the respondents have a capital of P50,000 and below with 34.95%, followed by P50,001 to P150,000 with 30.38%. However, respondents that belong to P450,001 to 600,000 had 2.69%. This means that

majority of the business owners in the fourth congressional district of Quezon are considered as micro-entrepreneurs with low financial capital.

In terms of the average monthly sales/revenue, most of the respondents have P20,0001-P40,000 average monthly sales with 27.69%, followed by P20,000 and below with 25.00%. However, respondents with to P80,0001 to P100,000 average monthly sales had 6.18%. The outcome is consistent with the average monthly sales that the majority of business owners report.

Part 3. The Level of Financial Literacy of Business Owners

Table 3
Mean Scores of the Level of Financial Literacy of Local Business Owners in terms of Accounting

Accounting	Mean	Verbal Interpretation	Rank
As a local business owner, I am aware that:			
1.1 Accounting provides proper recording of our economic and business transactions.	3.08	Moderately Literate	3.5
1.2 Accounting records are important basis for the preparation of our financial statements.	3.07	Moderately Literate	7
1.3 Accounting is applicable and can be helpful in our business and other types and size of businesses.	3.08	Moderately Literate	3.5
1.4 Business organizations like ours can be classified into sole-proprietorship, partnership, corporation, cooperatives, etc.	3.06	Moderately Literate	9
1.5 Each business organization like ours has its own and different accounting treatment.	3.05	Moderately Literate	11
1.6 Businesses like ours can be classified into 3 types such as service, merchandising, and manufacturing.	3.07	Moderately Literate	7
1.7 Each business type like ours has its own and different accounting treatment.	3.05	Moderately Literate	11
1.8 Financial statements help business owners like me and all stakeholders in decision making.	3.07	Moderately Literate	7
1.9 Financial statements can be classified in to 4 types – balance sheet, income statement, cash flow, and owner’s equity.	3.05	Moderately Literate	11
1.10 Personal assets should be separated in business assets.	3.08	Moderately Literate	3.5
1.11 Personal liabilities should be separated in business liabilities.	3.08	Moderately Literate	3.5
1.12 Personal expenses should be separated from business expenses.	3.10	Moderately Literate	1
Grand Mean:	3.07	Moderately Literate	

Legend: “Illiterate (1.00 – 1.50)”, “Least Literate (1.51 – 2.50)”, “Moderately Literate (2.51 – 3.50)”, “Literate (3.51 – 4.50)”, “Highly Literate (4.51 – 5.00)”

Table 3 shows the level of financial literacy of the respondents in terms of accounting. It registered a grand mean of 3.07 which indicates a moderately literate level.

The top indicators of literacy are belief that personal expenses should be separated from business expenses with a weighted mean of 3.10; followed by the beliefs on various ways on how accounting helps business in proper recording, its applicability, the principle of separating personal assets and business assets, and the principle of separating business liabilities to personal liabilities with weighted mean of 3.08.

Table 4
Mean Scores of the Level of Financial Literacy of Local Business Owners in terms of Costing

Costing	Mean	Verbal Interpretation	
As a local business owner, I am aware that:			
2.1 Costing is the process of assigning cost to an element of our business.	3.92	Literate	7.5
2.2 Costing is helpful in decision making of our business together with the business owners.	3.93	Literate	3.5
2.3 With proper costing, our business may gain profit/positive return.	3.93	Literate	3.5
2.4 Without proper costing, our business may suffer loss/negative return.	3.94	Literate	1.5
2.5 Costing is crucial in the pricing strategy of our business.	3.92	Literate	7.5
2.6 Costing is crucial in calculating the profit of our business.	3.92	Literate	7.5
2.7 Proper knowledge of costing gives our company a competitive advantage among our competitors.	3.92	Literate	7.5
2.8 Sole-proprietorship, partnership, and corporation use their own level/degree in costing methodology.	3.91	Literate	11
2.9 Service, merchandising, and manufacturing business use their own costing system.	3.90	Literate	12
2.10 Costing includes all the direct materials, direct labor and factory overhead used in the conduct of our business.	3.92	Literate	7.5
2.11 Costing is crucial in calculating the number of productions of our business.	3.92	Literate	7.5
2.12 Costing helps the owners in expanding their business.	3.94	Literate	1.5
Grand Mean:	3.92	Literate	

Table 5 shows the level of financial literacy of the respondents in terms of costing. It registered a grand mean of 3.92 which indicates a literate level. The top indicators of literacy are belief that costing helps the owners in expanding their business and without proper costing, business may suffer loss/negative return with a mean of 3.92.

However, even though all indicators are found to be of literate, the study found out that the knowledge that sole-proprietorship, partnership, and corporation use their own level/degree in costing methodology obtained the lowest mean of 3.05. This is explained by the fact that the field of costing is treated differently in terms of corporate structure. Since the majority of respondents are sole owners, they are not familiar with the partnership and corporation's costing procedures.

Table 5
Mean Scores of the Level of Financial Literacy of Local Business Owners in terms of Budgeting

Budgeting	Mean	Verbal Interpretation	Rank
As a local business owner, I am aware that:			
3.1 Budgeting is creating a plan to spend wisely the capital in our business.	4.09	Literate	1
3.2 Budgeting helps our business to determine in advance if we have enough capital.	4.08	Literate	3.5
3.3 Budgeting is balancing the income and expenses.	4.08	Literate	3.5
3.4 Budgeting helps our business achieve its goals.	4.08	Literate	3.5
3.5 Budgeting helps our business in calculating if the company has a favorable or unfavorable returns.	4.08	Literate	3.5
3.6 Budgeting allows our business to see its financial strengths.	4.07	Literate	6
3.7 Budgeting allows our business to see its financial weaknesses.	4.06	Literate	8
3.8 Budgeting helps our business to be financially stable.	4.06	Literate	8
3.9 In income, when the actual income is greater than target income, our business has favorable returns.	4.06	Literate	8
3.10 In income, when the actual income is lower than target income, our business has unfavorable returns.	4.03	Literate	11.5
3.11 In expenses, when the actual expenses are greater than budget, our business has unfavorable expenses.	4.03	Literate	11.5
3.12 In expenses, when the actual expenses are lesser than budget, our business has favorable expenses.	4.04	Literate	10
Grand Mean:	4.06	Literate	

Legend: "Illiterate (1.00 – 1.50)", "Least Literate (1.51 – 2.50)", "Moderately Literate (2.51 – 3.50)", "Literate (3.51 – 4.50)", "Highly Literate (4.51 – 5.00)"

Table 5 shows the level of financial literacy of the respondents in terms of budgeting. It registered a grand mean of 4.06 which indicates a literate level. The top

indicators of literacy is the belief that budgeting is creating a plan to spend wisely the capital in our business with a mean of 4.09.

However, even though all indicators are found to be of literate, the study found out that the knowledge that in income, when the actual income is lower than target income, business has unfavorable returns and in expenses, when the actual expenses are greater than budget, business has unfavorable expenses obtained the lowest mean of 4.03. This is explained by the fact that the field of budgeting in its technical terms are difficult to analyze by the majority of the respondents.

Part 4. Challenges Met by the Local Business in the Management of Their Financial Resources

Table 6
Mean Scores of the Challenges Met by the Local Business Owners in the Management of Their Financial Resources

Challenges Met	Mean	Verbal Interpretation	Rank
1. Insufficient Working Capital	3.06	Moderately Encountered	3
2. Limited Access of Capital	3.36	Moderately Encountered	2
3. No Allotted Funds for Unforeseen Expenses (Repair, Maintenance, etc.).	2.95	Moderately Encountered	4
4. Poor Budget Management	2.64	Moderately Encountered	8
5. Poor Debt Management	2.66	Moderately Encountered	7
6. Challenges in Maintaining Financial Recording	3.67	Encountered	1
7. Poor Tax and Business Compliance	2.63	Moderately Encountered	9.5
8. Late Payment of Bills	2.63	Moderately Encountered	9.5
9. No Segregation of Business and Personal Finances	2.94	Moderately Encountered	5
10. Poor Costing Tactics	2.68	Moderately Encountered	6
Grand Mean:	2.92	Moderately Encountered	

Table 6 shows the challenges encountered by the local business owners in managing the financial resources of their business. Challenges in Maintaining Financial Reporting obtained the highest mean of 3.67 with an interpretation of Encountered. This

is followed by limited access of capital with a mean of 3.36. However, Poor Tax business compliance and late payment of bills obtained the lowest mean of 2.63.

CONCLUSION

Based on the results from this research study, the following conclusions can be made.

1. In terms of personal profile, most respondents are females between 41 to 50, married, and college graduates.

2. In terms of business profile, most respondents are from Lopez, operating a merchandising type of business, with a running capital of P50,000 or less, and have been existing for 1 to 6 years.

3. The Level of Financial Literacy of the respondents is found to be “Moderately Literate” in accounting and “Literate” in Costing and Budgeting.

4. The respondents' most difficult challenge in managing the financial part of their business is maintaining the financial reporting, followed by the limited access to capital.

5. There is no significant difference on the level of financial literacy of the respondents when grouped according to age, sex, educational attainment, and civil status. This indicates that these demographic characteristics do not have an impact on the degree of financial literacy in all of its aspects. In contrast, a marked difference was found in terms of educational attainment in all areas which imply that educational attainment has influence to the level of financial literacy.

RECOMMENDATION

Based on the findings and conclusions of this study, the researcher offers the following recommendations:

1. To the business owners, it is recommended that they expose themselves to various methods for enhancing the skills and knowledge required to manage their businesses successfully, particularly the financial aspect of the business. It is advised that

they participate in the government-sponsored trainings. To prevent any loss in the future, it is advised that they have at least a basic understanding of managing funds before starting their own business.

2. For the Department of Trade and Industry Offices in each Municipality, since educational attainment has influence on the level of financial literacy, it is recommended for them to identify business owners with low educational attainment needing financial literacy in order to directly provide them through the financial literacy program. It is also to emphasize that the proposed program should be given to all business owners but with emphasis to those who have low level of educational attainment. Additionally, since maintaining financial reporting is the most challenging problem of the business owners, it is recommended that a Basic Accounting Literacy Program with highlights in the preparation of Financial Statements should be offered to these business owners in order to directly provide them the basic accounting skills needed. It is recommended that they can come up with a Memorandum of Agreement with Higher Educational Institutions offering Accounting and Finance Related programs to have a facilitators, teachers, or speakers who are well-versed in the said field. On the other hand, to solve the problem of limited capital, it is recommended for them to provide a capital to these small business owners or introduce them to different financial institutions that lend capital such as banks and cooperatives.

3. It is highly recommended for the educational institutions to instill the value of financial literacy as early as during the foundation years - elementary years. For the higher educational institutions, there should be constant development and enhancement of business curricula. It is encouraged that the important courses - basic accounting, business finance, budgeting, business, and costing - should be integrate in the secondary and tertiary level. Additionally, more On-The-Job-Trainings and Immersions must be initiated to expose students in the real-life situations involving financial related activities.

4. It is highly recommended for the future researchers to conduct similar study relative to the level of financial literacy of business owners – especially those who belong

to SMEs – to identify the problem so that they can provide help and guidance to them. Also, future researchers may conduct a study related on the effects of MOA with HEI in conducting Financial or Basic Accounting Literacy Program to business owners, benefits of conducting a financial literacy programs to businessowners, and alike.

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**THE PRACTICES OF INFECTION CONTROL AMONG THE SELECTED
PRIVATE JUNIOR HIGH SCHOOLS OF THE DIVISION OF LIPA CITY :
BASIS FOR MODULE DEVELOPMENT**

JERLYN T. GAMBOA

ABSTRACT

Disease outbreaks teach us lessons that we may take for granted. One of the lessons is infection preparedness. Infection control is a discipline that may help students prepare for an outbreak. The discipline requires students to be health-inclined to control infection. The secondary level of education has prerequisite subjects that may appropriately help implement an infection control discipline. The implementation of the infection control module in the secondary level of education includes the guidelines on face-to-face classes in the new normal set-up. The module must also be aimed at producing outcomes that will help students in preparation for infection outbreaks. The limitation of this study includes the absence of implementing an actual infection control module for the secondary level of education. The evaluation of an actual implementation of the course may have shown the empirical data that will present the preparedness of students at the secondary level. The infection control discipline has always been applied in health care settings to prevent infection. Considerable prevention was always made in health care settings. The students in the secondary level of education may relatively apply considerable prevention of infection in their circumstances. The infection control discipline will help students form basic knowledge that can save lives.

Further research may be undertaken for constant improvement of infection disease management that would help address development of new communicable diseases as well as update for known interventions that would greatly help not just the school settings but also the community. The infection control module made should be carefully studied by the administrator, teachers and schools for the modification before its implementation. The school needs further emphasis on awareness to increase the participation of the school community in the infection prevention and control program

making it a habit that would last a lifetime. A follow-up study should be conducted to determine the validity of results. School heads and stakeholders' responses should be included as additional respondents. Assessment of the module should be done.

Keywords: infection control, infection control module, level of readiness

INTRODUCTION

One of the most basic requirements of any educational facility is cleanliness measures such as school hygiene. A successful school is one that provides its kids with a clean and safe environment. It shows up in a variety of ways, including trash management, cleaning services, and student and staff wellness. It can also be a determinant of total school attendance, which is true for both students and staff members who attend school less frequently due to illness or a general dislike of going to a dirty school. A soiled building can accumulate a substantial amount of microorganisms over time. Given the number of people who enter and exit schools, this can be particularly hazardous, resulting in disease and illness for all parties involved. The entire hygiene of a school should be included in health-related policies. The health of persons exposed to microorganisms in schools is greatly influenced by school hygiene. It may be required to establish health clubs and hold information sessions about cleanliness in general in order to promote hygiene in schools. Students and employees will be more motivated to learn if they are exposed to a clean and sanitary atmosphere. This is because the general appearance of any classroom, building, or space can have an impact on overall morale and deter students from wanting to put work into a school that doesn't want to put effort into them.

Not only that, but having a clean school will boost parental and visitor motivation. When parents visit a school to enroll their children, the school's natural appearance has a significant influence on their inclination to enroll.

The primary mechanism by which schools deliver health education is through the health education curriculum. It defines what constitutes relevant health content and what students should be able to do as a result of participation in health education learning experiences. The purpose of the health curriculum in the K to 12 Basic Education Curriculum is to assist Filipino students in achieving, maintaining, and promoting life-long health and wellness. Students' health literacy competencies will be developed as a result of their participation in the program, and their overall well-being will be improved. It emphasizes the physical, mental, and emotional aspects of holistic health, as well as the social, moral, and spiritual dimensions. It enables learners to gain critical knowledge, attitudes, and skills for promoting good nutrition, preventing and controlling diseases, preventing substance misuse and abuse, reducing health-related risk behaviors, and preventing and controlling injuries, all with the goal of maintaining and improving personal, family, community, and global health.

In order to obtain a good quality of life, health education stresses the development of positive health attitudes and essential skills. As a result, in the primary grades, the emphasis on skill development is evident. Meanwhile, in the upper year levels, a complete body of knowledge is taught to serve as a basis for building desirable health attitudes, behaviors, and practices. The teacher is strongly urged to adopt developmentally appropriate learner-centered teaching approaches to assist the development of health literacy competences. This includes using life skills and value-based strategies, as well as scaffolding on student experience and prior learning, using culture-responsive scenarios and materials, incorporating arts and music in health messages, engaging learners in meaningful games and cooperative learning activities, and incorporating life skills and value-based strategies. Differentiated education should also be used by the teacher to accommodate to the varying needs and skills of the students.

Health education is one of the disciplines in Philippine educational institutions that is encountering challenges from curriculum development to implementation. Unfortunately, many nations have neglected to include health education in their school curricula, despite

the fact that a healthy and well-educated child promises a healthy and affluent future.

Making one topic reliant on another has resulted in a lack of autonomy in the educational schedule. As a result, it's either physical education or health science.

Although the Department of Education has programs such as Oplan Kalusugan, which includes the School-Based Feeding Program (SBFP); National Drug Education Program (NDEP); Adolescent Reproductive Health Education (ARH); Water, Sanitation, and Hygiene in Schools (WinS); Medical, Dental, and Nursing Services; and the School-Based Feeding Program (SBFP), the Department of Education has programs to help promote and provide Filipino learners with sustainable holistic school health and nutrition programs toward healthier behavior. This is due to a lack of money, people, and the techniques utilized to distribute Health Education in schools, which primarily include integrating health-related topics into more traditional academic disciplines.

Health education is unquestionably included in the K-12 curriculum. For decades, it has been a part of the curriculum in various forms, ranging from hygiene education to health science and health education, as well as when paired with physical education. However, stakeholders are concerned about the effectiveness of health education, which is taught with the goal of altering knowledge, attitude, and behavior related to health. Furthermore, at this time of crisis, when the Covid-19 Pandemic has struck, it is eye-opening to consider how we can educate learners on illness avoidance.

"Infection Control refers to policies and practices used to decrease the danger of spreading illnesses, particularly in hospitals and human or animal health care facilities," according to Farlex (2021). Disease preventive measures rely heavily on health education and promotion. To avoid rebound infections, it is critical to have established appropriate hygiene practices and to reinforce them throughout the peak of transmission.

Furthermore, because it provides confidence and a rational explanation of the phenomena, it will aid in the reduction of fear and anxiety in children, young adults, and adults. With our current scenario, rigorous research on school closures and openings are

being done. Preventative intervention in locations like schools will reduce the risk and give officials and stakeholders more confidence that schools will be available to them.

Schools can serve as role models for encouraging handwashing and other good hygiene practices, which can help the community prevent diseases more effectively. A large portion of the population attends schools, which are frequently located close to one another. Diseases can spread swiftly in schools, as well as in other public places. Infection control awareness can be taught in schools through a program that teaches not only kids about proper hygiene practices and other measures, but also adults. Parents and other members of the school community will also be informed. Healthy habits and behaviors learnt in school will affect their health and well-being in the future. Every person's secondary nature should be this.

In the absence of vaccines, preventive measures such as excellent hygiene, cough etiquette, disinfection, and social distancing represent the main line of defense against infectious diseases, particularly this epidemic. "The greatest method to prevent and decrease transmission is to be thoroughly informed about the disease, its causes, and how it spreads," according to the World Health Organization (WHO). There are health and hygiene initiatives that reinforce consistent messaging and encourage individuals to change their habits, and these campaigns are helpful in lowering infection rates. However, the majority of the efforts are aimed at adults rather than children and young adults. Children can imitate their parents' actions, but they don't fully comprehend why they are being encouraged to change. As a result, there will be misunderstanding and a disregard for cleanliness and health protocols. Adolescents and young adults are adventurous, ignoring the dangers of infectious disease because they believe they are already adults who can handle things on their own. It is critical to build an infection control module that would engage children and adolescents in hygiene and health through distancing education in order to raise awareness and increase infection control compliance.

The development of this module intends to have a positive impact on the school community's general health and quality of life. It will be implemented to raise awareness

and information about the prevention of communicable diseases such as Covid-19. The module's use is designed to assist institutions in reducing the occurrence of disease outbreaks, which are typically caused by ineffective infection management. The Bureau of Infection and Control of the Department of Health's mission is to "lead and synchronize all efforts in disease prevention and control towards healthy families and communities through good governance, dynamic partnership, and shared values," and this reading material will undoubtedly help to raise awareness and knowledge about infectious disease.

METHODOLOGY

This study used the quantitative descriptive design of research. The researcher believed that this method was appropriate to gather information about the present existing condition on infection prevention and control in the selected private schools in Lipa City. This study included random Junior High School Students, Grades 7 to 10, who were enrolled in school year 2021-2022 in selected Private Schools in Lipa City as well as the students' Advisers. The researcher included the following private schools: 1. Academia de Lipa City Inc, 2. LCC Silvercrest, and 3. St. Clare Foundation School. A total of 200 students and 20 teachers were the target participants in this study.

The main data gathering instrument was the survey questionnaire that was given through Google Forms. For the Student's questionnaire: Part I. Health Protocols are adopted by the students to comply with the Infection Prevention and Control Procedure in terms of Severity, Susceptibility, and Barriers. Part II. Respondents' knowledge and awareness on communicable diseases and how it spreads in terms of Self-Care and Self-Efficacy. Part III. Respondents' Level of Readiness in terms of School and Classroom Set-up, Curriculum Implementation, and Adherence to Health and Safety Protocols.

RESULTS AND DISCUSSIONS

1. Personal Perceptions and Knowledge of the Respondents on Communicable Diseases

1.1. In Terms of Susceptibility

Table 1
Personal Perceptions and Knowledge of the Respondents on Communicable Diseases in Terms of Susceptibility

Items	Teachers			Students		
	WM	VI	R	WM	VI	R
1. I always avoid contact (at least less than 3 feet space) with those who are sick.	4.43	VGE	4.5	4.35	VGE	3
2. I just remain at home when I am ill and encourage others to do the same.	4.74	VGE	1	4.61	VGE	1
3. I know the important of keeping healthy by eating nutritious food and well-balanced diet.	4.70	VGE	2	4.50	VGE	2
4. I avoid touching my eyes, nose and mouth as much as possible.	4.43	VGE	4.5	3.86	GE	5
5. I am aware that I can be a susceptible host for the spreading infection.	4.65	VGE	3	4.34	VGE	4
Composite Mean	4.59	VGE		4.33	VGE	

Legend: 4.20 - 5.00, Very Great Extent (VGE)
3.40 - 4.19, Great Extent (GE)
2.60 - 3.39, Moderate Extent (GE)
1.80 - 2.59, Some Extent (SE)
1.00 - 1.79, Less Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

The composite means of 4.59 for the teachers and 4.33 for the students generalized that the respondents' personal perceptions and knowledge on communicable diseases in terms of susceptibility were to the very great extent. This finding implied that teachers and students are being equipped with knowledge on communicable diseases. Moreover, during the pandemic there have been several campaigns for the awareness on transmitted diseases, specifically COVID-19.

In connection with this, Scott mentioned in his study that before considering the concept of targeted hygiene, we need to identify the highest risk factors for pathogen transmission. Therefore, Infection prevention and control programs must be developed.

Agreeing to Allen & Bridgeland, educate school personnel, students, families, guardians, caretakers, and the public about infectious diseases and how to limit their spread, and identify appropriate training needs for infection control team members and school personnel; ensure that infection control plans and resulting policies are clearly communicated in languages and formats appropriate for all students and members of the school community.

These were supported by the teacher-respondents assessed that they just remain at home when they are ill and encourage others to do the same to the very great extent as evidenced by the highest obtained weighted mean of 4.74 and highest rank of 1. These findings implied that whenever a teachers feel ill, they already know that remaining at home is a preferably choice not just to improve one's condition but to control the disease as well.

According to Center for Disease Control (2021), we should encourage students and staff to stay home when sick. In addition, we must teach students, parents, and staff the importance of staying home when sick until at least 24 hours after they no longer have a fever or signs of a fever (chills, feeling very warm, flushed appearance, or sweating) without the use of fever-reducing medicine.

Meanwhile, the said group of respondents rated also that they always avoid contact (at least less than 3 feet space) with those who are sick, and they avoid touching their eyes, nose and mouth as much as possible to a very great extent with the least equal weighted means of 4.43 and the least ranks of 4.5. Some of the respondents believe that touching the nose, face is not an important factor that contributes to the cause of illness to oneself. This result showed that teacher-respondents have minimum adherence to this practice since they tendencies to forget the necessary distance when they are at work. Most especially when bulk of tasks await them. Consequently, touching eyes, nose and mouth are sometimes inevitable because they unconsciously touch it several times. Thus, this is the least practice when it comes to the perception of susceptibility. It can be

attributed to the fact that touching of face is an involuntary protective response. It can also be an unconscious habit, a form of communication or a hands-on coping mechanism.

In relation to this, Gatchalian (2020) recommends that the resumption of face-to-face classes is possible if the risk of community transmission is reduced and health protocols are observed including hand washing, frequent use of alcohol, wearing face masks, and practicing social distancing. Wearing masks helps them to avoid touching their faces including their eyes, nose, and mouth.

1.2 In Terms of Severity

Table 2

Personal Perceptions and Knowledge of the Respondents on Communicable Diseases in Terms of Severity

Items	School Heads			Teachers		
	WM	VI	R	W M	VI	R
1. I am aware that diseases from droplet transmission is spreadable through droplets which occur when an infected person talks, coughs or sneezes.	4.87	VGE	1	4.6 6	VG E	1
2. I am aware that diseases from airborne transmission is spreadable through airborne droplets or dust particles.	4.76	VGE	3	4.5 6	VG E	3
3. I am aware that diseases from droplet transmission is spreadable through droplets which occur when an infected person talks, coughs or sneezes.	4.74	VGE	4	4.5 6	VG E	3
4. I am aware that diseases from airborne transmission is spreadable through airborne droplets or dust particles.	4.78	VGE	2	4.5 6	VG E	3
5. I am aware that diseases from droplet transmission is spreadable through droplets which occur when an infected person talks, coughs or sneezes.	4.57	VGE	5	4.4 9	VG E	5
Composite Mean	4.74	VGE		4.5 6	VG E	

Legend: 4.20 - 5.00, Very Great Extent (VGE)
3.40 - 4.19, Great Extent (GE)
2.60 - 3.39, Moderate Extent (GE)
1.80 - 2.59, Some Extent (SE)
1.00 - 1.79, Less Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

The composite means of 4.74 for the teachers and 4.56 for the students concluded that the respondents' personal perceptions and knowledge on communicable diseases in terms of severity were to the very great extent. This finding implied that teachers and students are equipped with ample information when it comes to the severity of communicable diseases.

This is supported by van Tilburg and Igou (2017), a high level of perceived severity of COVID-19 makes most people exhibit active health-protection behaviors and stay at home, which significantly limits the social activities people can enjoy.

As written in the Table 2, the teacher-respondents evaluated that they know that communicable diseases can be caused by bacteria, viruses, fungi, and parasites to the very great extent as shown by the highest weighted mean of 4.87 and highest rank so 1. The findings implied that teacher-respondents are informed that communicable diseases are brought by microbes which causes the phenomenon.

In line with this, Scott explained that pathogens travel via well-defined routes from an infected source to a new host. Numerous sampling studies have recorded the presence of both pathogenic bacteria, fungi, parasites, and viruses, as well as nonpathogens, on environmental surfaces in home and community settings.

On the contrary, the said group of respondents assessed that they are aware that diseases from airborne transmission is spreadable through airborne droplets or dust particles to a very great extent with the least weighted mean of 4.57 and the least rank of 5. The data showed that some teacher-respondents are not mindful that there are some diseases that can be acquired through airborne transmission. Perhaps, this spotted at the last since the perception and knowledge about disease can be transmitted through airborne are also affected by ambient humidity, which affects not only the virus' stability but also respiratory droplet size, as water content evaporates. (National Center for Biotechnology Information, 2012)

With respect to the student-respondents, they judged those communicable diseases can be caused by bacteria, viruses, fungi, and parasites to a very great extent

which yielded the highest weighted mean of 4.66 and the highest rank of 1. The result stated that students are aware about what causes communicable diseases. They have the idea that these are being caused by pathogenic microorganisms.

Consistent with that statement of Huang that communicable diseases are illnesses caused by viruses or bacteria that people spread to one another through contact with contaminated surfaces, bodily fluids, blood products, insect bites, or through the air.

1.3 In Terms of Barriers

Table 3
Personal Perceptions and Knowledge of the Respondents on Communicable Diseases in Terms of Barriers

Items	Teachers			Students		
	WM	VI	R	WM	VI	R
1. I feel lazy, forget or busy to perform hand washing.	2.87	ME	1	2.30	SE	1
2. There is a scarcity of water in our area.	2.48	SE	2	2.19	SE	2.5
3. There is lack of soap and water available.	2.35	SE	3	2.19	SE	2.5
4. Personal Protective Equipment such as face mask and face shield is not available.	2.22	SE	4	1.72	LE	4
5. I am not aware on how to do hand washing properly.	1.91	SE	5	1.61	LE	5
Composite Mean	2.37	SE		2.00	SE	

Legend: 4.20 - 5.00, Very Great Extent (VGE)
3.40 - 4.19, Great Extent (GE)
2.60 - 3.39, Moderate Extent (GE)
1.80 - 2.59, Some Extent (SE)
1.00 - 1.79, Less Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

The composite means of 2.37 for the teachers and 2.00 for the students inferred that the respondents' personal perceptions and knowledge on communicable diseases in terms of barriers were to some extent. This result implied that in terms of barriers of the communicable diseases, teachers and students are not that conscious. This is the reason why awareness is still needed to achieve a healthy school environment.

In relation to this, LaMorte states that perceived barriers refer to a person's feelings on the obstacles to performing a recommended health action. In which, there is wide variation in a person's feelings of barriers, or impediments, which lead to a

cost/benefit analysis. The person weighs the effectiveness of the actions against the perceptions that it may be expensive, dangerous, unpleasant, time-consuming, or inconvenient. Thus, additional education is needed to enhance the level of distinguishing ability of an individual so that there will be a low chance that communicable disease will spread.

As presented in the Table 3, the teacher-respondents perceived that they feel lazy, forget or busy to perform hand washing to a moderate extent as evidenced by the highest obtained weighted mean of 2.87 and highest rank of 1. The result can be explained that teacher-respondents are wary that forgetting to perform hand washing is the frequent reason why they get such diseases. Furthermore, they are aware that it hinders them to protect themselves.

This is supported by CDC which states that schools are model settings to boost handwashing and other good hygiene practices which can contribute to the community's effective ways to prevent infections.

In contrast, the said group of respondents figured they are not aware on how to do hand washing properly to some extent with the least weighted mean of 1.91 and the least rank of 5. This finding showed that they are more likely to perform handwashing properly. Since this is on the least rank of the practices, it proved that they have the knowledge on how to do proper handwashing.

In parallel with this, CDC recommends the following measure for Infection Prevention and Control such as encouraging students, parents, and staff to take everyday preventive actions to stop the spread of germs. Encourage hand hygiene among students and staff through education, scheduled time for handwashing, and the provision of supplies. Teach students and staff to wash hands often with soap and water for 20 seconds, dry hands with a paper towel, and use the paper towel to turn off the faucet.

About the student-respondents, they evaluated that they feel lazy, forget or busy to perform hand washing to some extent which yielded the highest weighted mean of 2.30 and the highest rank of 1. Like teacher-respondents, this study showed that student-

respondents are also mindful that not performing handwashing at all makes them vulnerable to acquire communicable diseases.

This is supported by Allen, D. & Bridgeland, J. which states that schools are susceptible for the diseases to spread quickly. Infection control awareness through a module in schools can help educate not only students about good hygiene practices and other strategies.

2. Adaptation of Students to Infection Prevention and Control Protocols

2.1. In terms of Self-Care

Table 4
Adaptation of Students to Infection Prevention and Control Protocols in Terms of Self-Care

Items	School Heads			Teachers		
	WM	VI	R	WM	VI	R
1. I do physical activities such as jogging, biking, exercising at least twice a week.	3.56	GE	8	3.61	GE	8
2. I do meditation or other relaxation techniques such as listening to music whenever I feel down and stressed.	3.91	GE	7	4.11	GE	5
3. I eat healthy and well-balanced food.	4.17	GE	5	4.07	GE	6
4. I live in a conducive and safe environment.	4.26	VGE	4	4.33	VGE	3
5. I take vitamins daily. I avoid smoking and drinking alcoholic drinks.	4.35	VGE	3	4.53	VGE	2
6. I drink at least 8 glasses of water a day.	4.39	VGE	2	4.15	GE	4
7. I sleep at least 7 to 10 hours every day.	4.00	GE	6	3.84	GE	7
8. I maintain good personal hygiene, bathe and wash hands regularly.	4.74	VGE	1	4.65	VGE	1
Composite Mean	4.17	GE		4.16	GE	

Legend: 4.20 - 5.00, Very Great Extent (VGE)
3.40 - 4.19, Great Extent (GE)
2.60 - 3.39, Moderate Extent (GE)
1.80 - 2.59, Some Extent (SE)
1.00 - 1.79, Less Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

The composite means of 4.17 for the teachers and 4.16 for the students signified that the respondent's adaptation to Infection Prevention and Control Protocols in terms of self-care were to the great extent. The data revealed that the respondents give importance to self-care in terms of the prevention of communicable diseases. They perform activities which can boost their body immunity to infections.

Arens & Morin stressed that Self-care is the deliberate practice of engaging in actions or perspectives to improve and care for one's mental, emotional, spiritual, and physical health. Self-care does not have to be expensive or time-consuming.

As shown in Table 4, the teacher-respondents assessed that they maintain good personal hygiene, bathe, and wash hands regularly to a very great extent as given by the highest obtained weighted mean of 4.74 and highest rank of 1. This data showed that teacher-respondents give great importance to personal hygiene. Maintaining a clean body is part of their daily routine. They believe that they can prevent communicable diseases by keeping their bodies tidy.

This is supported by ECDPC that believes that schools are ideal settings to encourage hand washing and other good hygiene practices which can contribute to children and staff learning effective ways to prevent infections.

Meanwhile, the said group of respondents evaluated that they do physical activities such as jogging, biking, exercising at least twice a week with the least weighted mean of 3.56 and the least rank of 8. This data showed that teacher-respondents are less likely to do physical activities. There might be several factors why this item ended at the last spot. They consider time to do the activities and lack of motivation to do so.

On the part of the student-respondents, they answered that they maintain good personal hygiene, bathe, and wash hands regularly which yielded the highest weighted mean of 4.65 and the highest rank of 1. Students give importance to good personal hygiene as well. The finding confirms that cleanliness is the primary goal to achieve to prevent diseases.

In line with this, Health Direct mentions that good personal hygiene is one of the best ways to protect yourself from getting gastro or infectious diseases such as COVID-19, colds, and flu. Washing your hands with soap removes germs that can make you ill. Maintaining good personal hygiene will also help prevent you from spreading diseases to other people.

On the contrary, the said group of respondents evaluated that they do physical activities such as jogging, biking, exercising at least twice a week to the great extent with the least equal weighted means of 3.61 and least ranks of 8. This data showed that student-respondents despite of their young age, which is the stage known to be energetic, physical activities are still at the least priority. Some of the factors might be because they don't like to be exhausted. Other could be because their friends and family don't share their interests in physical activities.

2.2 In Terms of Self-Efficacy

Table 5
Adaptation of Students to Infection Prevention and Control
Protocols in Terms of Self-Efficacy

Items	Teachers			Students		
	WM	VI	R	WM	VI	R
1. I already experienced being sick /witness people who are sick.	4.26	VGE	8	3.95	GE	8
2. I know what communicable diseases is.	4.70	VGE	3	4.43	VGE	6
3. I know what to do when I get sick.	4.48	VGE	7	4.50	VGE	5
4. I know what to do to avoid getting sick.	4.61	VGE	6	4.58	VGE	4
5. I take medicine when I am sick.	4.65	VGE	4.5	4.72	VGE	3
6. I well-aware of the advantages of being vaccinated.	4.65	VGE	4.5	4.37	VGE	7
7. I know the importance of being healthy.	4.91	VGE	1.5	4.80	VGE	1
8. I know the importance of maintaining a clean and safe environment.	4.91	VGE	1.5	4.74	VGE	2
Composite Mean	4.65	VGE		4.51	VGE	

The composite means of 4.65 for the teachers and 4.51 for the students concluded that the respondent's adaptation to Infection Prevention and Control Protocols in terms of self-efficacy were to the very great extent.

The above findings can be inferred that teacher-respondents and student-respondents are exercising the self-efficacy well to prevent infection. They do have adherence to health protocols.

This is supported by the study of Barbosa and Bernades which discussed that personal hygiene habits had a positive effect on self-efficacy for infection prevention and had an indirect positive effect on infection prevention behaviors through self-efficacy for infection prevention.

As shown in Table 5, the teacher-respondents found out that they know the importance of being healthy, and they also know the importance of maintaining a clean and safe environment to the very great extent as shown by the highest equal weighted means of 4.91 and highest ranks of 1.5. This finding showed that teacher-respondents believe that in the absence of germs, we can be free from diseases. They give importance to health. Thus, helping them to keep their self-efficacy to avoid sickness.

According to Andrade, et al. Knowing the self-efficacy of health care professionals in hand hygiene is extremely important, because it can be applied as a health management tool and be useful in the diagnosis of the weaknesses related to knowledge, abilities, and engagement with the execution of good hand hygiene practices and the management of infection control.

On the contrary, the said group of respondents discovered that they already experienced being sick /witness people who are sick to the very great extent with the least weighted mean of 4.26 and least rank of 8. In parallel to the result of the highest rank, this result proved that teacher-respondents know how to take care of themselves since most of them are not getting sick at all. It manifests that their self-efficacy when it comes to infection prevention and control is effective. Therefore, only some of them were encountered diseases.

3. Level of Readiness of the School in Infection Prevention and Control Program

3.1. In Terms of Curriculum Implementation

Table 6
Level of Readiness of the School in Infection Prevention and Control Program in Terms of Curriculum Implementation

Items	Teachers			Students		
	WM	VI	R	WM	VI	R
1. I accept the new curriculum goal that is given in the reality that the mode of delivery of teaching is sometimes distracting such as online classes.	4.79	VGE	1	4.61	VGE	1
2. (Teachers) I plan what should be taught during the period of social distancing. (Students) I received instructions on what must be learned during offline classes.	4.52	VGE	8	4.45	VGE	9
3. I identify the possibility of pursuing options to recover learning time once the social distancing period is over, for example, an intensive review period during the break prior to the start of the new academic year.	4.52	VGE	8	4.41	VGE	10
4. I clearly know my role and what to expect while learning in the new situation, through direct instruction where possible or guidance for self-directed learning.	4.70	VGE	2.5	4.48	VGE	7.5
5. (Teachers) We have a mechanism of just in time professional development for teachers and for parents to be able to support learners in the new modality of instruction. (Students) We are clearly instructed and supported on how to use the new modality of learning such as using different platforms such as Google Classroom, etc.	4.70	VGE	2.5	4.57	VGE	4
6. (Teachers) We define appropriate instruments of student assessment during the demand. (Students) We are provided options of different modes of learning whatever is appropriate and available.	4.43	VGE	10	4.50	VGE	6
7. Our school develops mechanisms of daily checking in with teachers and school staff and students.	4.61	VGE	5	4.48	VGE	7.5
8. Our school provides guidance to students and families about the safe use of screen time and online tools to preserve student well-being and mental health as well as provide protection from online threats to minors.	4.57	VGE	6	4.53	VGE	5
9. (Teachers) We have supported by the school of the professional development in guiding online instruction. (Students) Our school conducted orientations and training on how online classes are conducted.	4.52	VGE	9	4.60	VGE	2
10. Our school provides activities that can reinforce and enhance the learning of the students.	4.65	VGE	4	4.59	VGE	3
Composite Mean	4.60	VGE		4.52	VGE	

The composite means of 4.60 for the teachers and 4.52 for the students safely implied that the school's level of readiness in Infection Prevention and Control Program in terms of curriculum implementation is of very great extent. It can be anticipated that the teachers and students are prepared for the new normal set-up. It could also mean that they are ready for the new curriculum implementation.

Allen and Bridgeland disclosed in their study that the goal of safely and sustainably reopening K–12 school buildings for in-person learning is widely recognized as critical to minimizing the impact of academic, social, emotional, and mental strains brought forth by the COVID-19 pandemic. For in-person learning to succeed on an ongoing basis, schools must be able to offer safe environments, taking into account high levels of community spread of COVID19. Health and safety are foundational for learning and educating.

As given in Table 6, the teacher-respondents determined that they accepted the new curriculum goal that is given in the reality that the mode of delivery of teaching is sometimes distracting such as online classes to the very great extent which yielded the highest weighted mean of 4.79 and the highest rank of 1. The result of these data showed that the teacher-respondents' perceptions when it comes to curriculum learning are based on what is the real situation that they are facing. They are fully aware that the new curriculum will face challenges that are yet to be solved. They perceived that it has problems in which they need to take actions to be ready in implementing the curriculum as well as considering the infection prevention and control adherence.

Furthermore, the said group of respondents answered that they define appropriate instruments of student assessment during the demand to the very great extent which garnered the least weighted mean of 4.43 and least rank of 10. The teacher-respondents are defied on how to properly provide assessment for them to ensure the learning of their students. This might be the least because most of the teachers are challenged on how to gauge students learning abilities. Moreover, during this new

normal set-up, the school considers the infection prevention and control protocols which hinders the face-to-face classes. Therefore, assessments are difficult to conduct.

On the part of the student-respondents, they evaluated that they accepted the new curriculum goal that is given in the reality that the mode of delivery of teaching is sometimes distracting such as online classes accept the new curriculum goal that is given in the reality that the mode of delivery of teaching is sometimes distracting such as online classes to the very great extent which made the highest weighted mean of 4.61 and the highest rank of 1. The result of the study revealed that the student-respondents believe that the mode of delivery for the new curriculum goal can be thought-provoking since it could be challenging when it comes to implementation. Since there are several hindrances such as lack of communicational skill development in online students, poor time management, and lack of motivation.

According to Baticulon, among barriers to online learning, the most frequently encountered were difficulty adjusting learning styles, having to perform responsibilities at home, and poor communication or lack of clear directions from educators.

Meanwhile, the said group of respondents rated that they identified the possibility of pursuing options to recover learning time once the social distancing period is over, for example, an intensive review period during the break prior to the start of the new academic year to the very great extent with a weighted mean of 4.41 and a rank of 10. This data showed that the student-respondents are still in vague whether face to face classes will resume immediately or not. Some of them might not be positive that they could be able to cope up with the learnings that they thought they should have. This could create concern to the students which can delay their readiness to cope up with the new normal school setting.

3.2. In Terms of Following Health Protocols

Table 7
Level of Readiness of the School in Infection Prevention and Control Program in Terms of Following Health Protocols

Items	Teachers			Students		
	WM	VI	R	WM	VI	R
1. All personnel are advised to eat healthy food; drink sufficient water; take vitamins.	4.61	VGE	7	4.33	VGE	10
2. All persons are advised to exercise.	4.70	VGE	2	4.65	VGE	5
3. Everybody must practice respiratory etiquette.	4.48	VGE	8	4.50	VGE	8
4. Everybody is advised to frequently wash their hands with soap and water and are discouraged from touching their nose, eyes, and mouths.	4.65	VGE	4.5	4.67	VGE	2.5
5. Everybody must always wear appropriate Personal Protective Equipment and Masks.	4.83	VGE	1	4.67	VGE	2.5
6. Everybody must always practice social distancing, maintain a distance of at least one (1) meter.	4.65	VGE	4.5	4.73	VGE	1
7. We avoid grouping together.	4.65	VGE	4.5	4.66	VGE	4
8. (Teachers) We have protocols for Work-from-Home. (Students) We have online classes. We are not required to come to school.	4.43	VGE	9	4.40	VGE	9
9. Our school encourage the staff and students to have their vaccinations.	4.30	VGE	10	4.57	VGE	6
10. Our school communicates, educates and monitored staff and students on their compliance to health protocols.	4.65	VGE	4.5	4.56	VGE	7
Composite Mean	4.60	VG E		4.57		

Legend: 4.20 - 5.00, Very Great Extent (VGE)
 3.40 - 4.19, Great Extent (GE)
 2.60 - 3.39, Moderate Extent (GE)
 1.80 - 2.59, Some Extent (SE)
 1.00 - 1.79, Less Extent (VLE)

WM = Weighted Mean
 VI = Verbal Interpretation
 R = Rank

The composite means of 4.60 for the teachers and 4.57 for the students safely generalized that the school’s level of readiness in Infection Prevention and Control Program in terms of following the health protocols is of very great extent. The findings of this study implied that the school is now ready in Infection Prevention and Control Program in terms of health protocols. This means that teachers and students are conscious about following the health protocols.

Thus, schools can now offer the new normal set-up for face-to-face classes. This is supported by Gatchalian’s statement which mentioned that the resumption of face-to-face classes is possible if the risk of community transmission is reduced and health

protocols are observed including hand washing, frequent use of alcohol, wearing face masks, and practicing social distancing.

As seen in Table 7, the teacher-respondents agreed that everybody must always wear appropriate Personal Protective Equipment and Masks to the very great extent which gained the highest weighted mean of 4.83 and the highest rank of 1. The data implied that the teacher-respondents believe that wearing Personal Protective Equipment such as masks are relatively necessary to the Infection Control and the level of Readiness of the school for New Normal Set-up. The result showed that in all health protocol practices, wearing masks is the most observed etiquette.

It is supported by CDC as they continue to recommend wearing the most protective mask you can, that fits well and that you will wear consistently.

Moreover, the said group of respondents assessed that their school encourage the staff and students to have their vaccinations to the very great extent which garnered the least weighted mean of 4.30 and least rank of 10. Not everyone believes in vaccination. There are several reasons why they are hesitant about receiving. On the contrary, a vaccine is being developed to control the disease as a complementary solution to hygiene measures and better, in social terms, than social distancing. Given that a vaccine will eventually be produced, information will be needed to support a potential campaign to promote vaccination.

For the student-respondents, they evaluated that everybody must always practice social distancing, maintain a distance of at least one (1) meter to the very great extent which gained the highest weighted mean of 4.63 and the highest rank of 1. Most student-respondents believe that during the preparation, social distancing should be on top priority for the preparation of the new normal setting as seen on the result of the data. For them this is the most effective way when it comes to following health protocols. One of the reasons why, face to face classes cannot resume easily.

3.3. In Terms of Structural Set-up

Table 8
Level of Readiness of the School in Infection Prevention and Control Program in Terms of Structural Set-up

Items	Teachers			Students		
	WM	VI	R	WM	VI	R
1. Our school has separate one entry point and one exit point.	4.09	GE	9	4.50	VGE	2.5
2. Our school has non-contact temperature check upon entrance.	4.15	GE	8	3.92	GE	10
3. Our school has health data record that needed to be filled-up upon entrance.	4.61	VGE	2	4.41	VGE	6
4. Our school always implements strict physical distancing.	4.63	VGE	1	4.50	VGE	2.5
5. Our school workstations / office consists of tables that also has at least 1 meter apart. Our classroom has plastic divider each row. Armchairs are at least 1.5 meters apart. 20 students are at maximum each classroom. We have separate entrance and exit doors.	4.17	GE	7	4.25	VGE	8
6. Our school elevator is limited to four (4) persons at time (if applicable). As much practicable, employees are advised to use stairs.	3.13	ME	1 0	4.14	GE	9
7. Teleconference and meetings are practiced reducing face to face interactions.	4.57	VGE	3. 5	4.41	VGE	6
8. Sanitation stations are provided in all building and office entrances, together with alcohol and/or alcohols, sanitizer	4.57	VGE	3. 5	4.47	VGE	4
9. Comfort rooms are ensured of water and are provided with soap, alcohol/alcohol, sanitizers always	4.48	VGE	5	4.41	VGE	6
10. Regular disinfection of all offices and buildings shall following the protocols.	4.43	VGE	6	4.51	VGE	1
Composite Mean	4.28	VG E		4.35	VGE	

Legend: 4.20 - 5.00, Very Great Extent (VGE)
3.40 - 4.19, Great Extent (GE)
2.60 - 3.39, Moderate Extent (ME)
1.80 - 2.59, Some Extent (SE)
1.00 - 1.79, Less Extent (VLE)

WM = Weighted Mean
VI = Verbal Interpretation
R = Rank

The composite means of 4.28 for the teachers and 4.35 for the students safely inferred that the school's level of readiness in Infection Prevention and Control Program in terms of structural set-up is of very great extent. The findings can be interpreted that most of the schools are equipped when it comes to level of readiness in Infection Prevention in terms of structural set-up.

It can be reinforced by WHO which advises that Social and physical distancing measures aim to slow the spread of disease by stopping chains of transmission of COVID-19 and preventing new ones from appearing. These measures secure physical distance between people (of at least one metre), and reduce contact with contaminated

surfaces, while encouraging and sustaining virtual social connection within families and communities.

As gleaned in Table 8, the teacher-respondents perceived that their school always implements strict physical distancing to the very great extent which made the highest weighted mean of 4.63 and the highest rank of 1. The data showed that when it comes to structural set-up teacher-respondents give more significance to physical distancing. Since it talks about structures, they already have the idea that it is regarding on the safe space area between persons.

It is discussed in DepEd Order No.014 that mandates to reduce contact. Always implement strict physical distancing, especially at public areas, workstations, eating areas, queues, and other high traffic areas. Reduce movement within and across areas and settings.

On the contrary, the said group of respondents assessed that their school elevator is limited to four (4) persons at time (if applicable) and as much practicable, employees are advised to use stairs to the great extent which garnered the least weighted mean of 3.13 and least rank of 10. The results can be described that the teacher-respondents were not much mindful of the elevators. Probably since only big schools use such equipment. Mostly, schools use stairs which already have reminders or protocols when using them.

For the student-respondents, they evaluated that regular disinfection of all offices and buildings shall following the protocols to the very great extent which gained the highest weighted mean of 4.51 and the highest rank of 1. The result of the study confirms student-respondents care about the sanitation when it tackles about physical structures. For them, a clean surrounding could make them feel safe from infection. This is an important practice that should done as one of the protocols.

This is supported by HealthCare and Technology Academy which cited that we continually share our environment with many different microorganisms. Understanding them and their pathogenicity is extremely important for healthcare workers. Knowledge

of the cycle of infection, along with the utilization of appropriate precautions and adequate decontamination, cleaning, sterilization, disinfection is vital.

On the other hand, the said group of respondents agreed that their school has non-contact temperature check upon entrances to the great extent with a weighted mean of 3.92 and a rank of 10. The findings of the study elucidated that student-respondents are not cautious about non-contact temperature. Given the fact that they are not allowed to go to school physically, some of students do not seek this practice as necessary as the other practices. With this, they might have the tendency to neglect this step.

CONCLUSION AND DISCUSSION

The following conclusions were drawn based on the highlights of the findings revealed in this study:

Disease outbreaks give us valuable lessons that we may overlook. Infection prevention is one of the lessons. Infection control is a field of study that can assist students in preparing for a disease outbreak. In order to control infection, pupils must be health-conscious. Prerequisite studies in the secondary level of school may be useful in implementing an infection control discipline. The rules on face-to-face lessons in the new normal set-up are included in the implementation of the infection control module in secondary school. The program should also strive to produce outcomes that will aid students in their preparation for outbreaks of infection. The lack of implementation of an actual infection control module for secondary school is one of the study's limitations. The empirical data that will present the preparedness of students at the secondary level may have been revealed by the evaluation of a real-world execution of the course. In order to avoid infection, infection control has long been practiced in health-care settings. In health-care settings, significant precautions were always taken. Students in secondary school may be able to use a significant amount of infection prevention in their situations. Students in the infection control discipline will get basic knowledge that can save lives.

RECOMMENDATIONS

From the highlights of the findings and based on the conclusions drawn the following recommendations are forwarded by the researcher.

1. Further research may be undertaken for constant improvement of infection disease management that would help address development of new communicable diseases as well as update for known interventions that would greatly help not just the school settings but also the community.

2. The infection control module made should be carefully studied by the administrator, teachers and schools for the modification before its implementation.

3. The school needs further emphasis on awareness to increase the participation of the school community in the infection prevention and control program making it a habit that would last a lifetime.

4. A follow-up study should be conducted to determine the validity of results. School heads and stakeholders' responses should be included as additional respondents. Assessment of the module should be done.

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