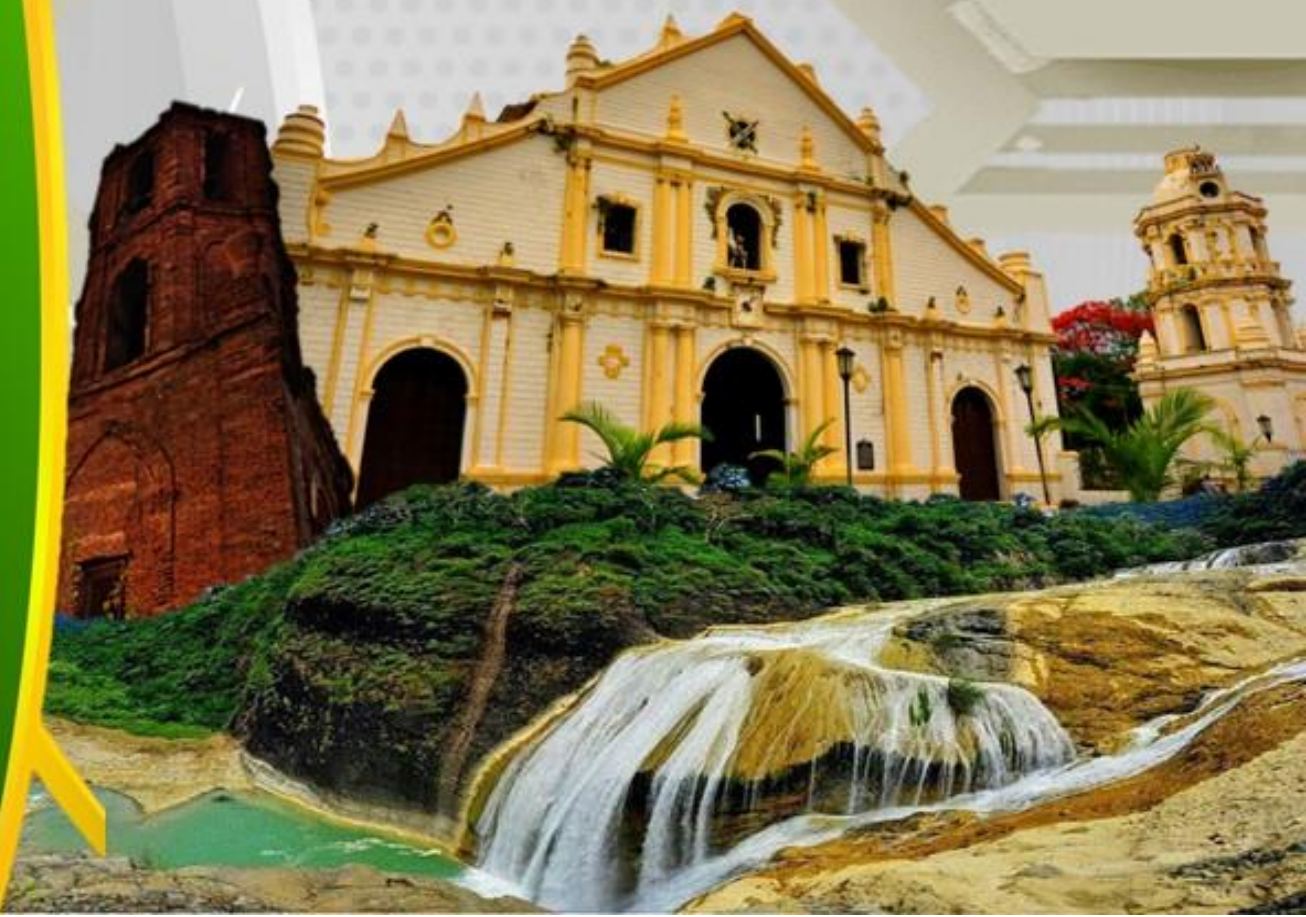


ISSN 2815-1879
Volume 1, Number 2
July - December 2022

Filipino Multidisciplinary Research Journal in Education



Published Quarterly
ISSN 2815-1879

EDITORIAL BOARD

JENNY ROSE A. GESTOLE, EdD
Editor-in-Chief

Reviewers

JEANRIZZA A. DELA CRUZ, PhD, RN
ARNEL C. DOCTOLERO, PhD
FLORENCE D. GANIR, PhD
JAN RICH A. GUIRA, PhD
LEAH S. CORPUZ, PhD
MARIO P. OBRERO, PhD
ELSIE C. PILAR, EdD
SANIATA M. PIANO, EdD
CLARK V. CORTEZ, EdD
DREXEL HEINZ M. CRUZ, PhD
JEFF LEIGH REBURON, PhD
RHODA L. REYES, EdD
EDWIN A. ANTONIO, PhD
ALELY S. REYES, PhD
RUNVI A. MANGERA, PhD
JEENO JAY C. FRANI, PhD
ROEL P. ANICAS, PhD, EdD
ANALITA G. GONZALES, PhD
GERARDO GUIUAN, PhD
LEAH L. OLUA, PhD
NORENIA T. DAO-AYEN, PhD

Chief Lay-out Artist

JOHNLEE D. UGALE, MAT-HE
Schools Division of Ilocos Sur

G SQUARED RESEARCH AND CONSULTANCY
PUBLISHER
Poblacion, Sta. Catalina, Ilocos Sur, Philippines

MESSAGE OF THE EDITOR-IN-CHIEF

Dear readers and contributors,

It is my pleasure to welcome you to the second edition of our research journal. We are delighted to continue our mission to provide a platform for researchers to share their innovative ideas and groundbreaking research with the world.

As the Editor-In-Chief, I am proud to say that this edition is filled with thought-provoking articles from a diverse range of fields. Our team has worked tirelessly to ensure that the articles presented are of the highest quality and rigorously peer reviewed.

In this edition, we have included articles that explore a variety of topics, from the latest developments and innovative approaches in education. Our aim is to stimulate discussion and debate and contribute to the advancement of knowledge in these fields.

We would like to extend our gratitude to our contributors for their hard work and dedication in bringing their research to the forefront. We would also like to thank our reviewers for their valuable feedback and insights, which have contributed to the quality and rigor of the articles presented.

Finally, we hope that this edition will inspire and encourage our readers to engage in further research and contribute to the advancement of knowledge in their respective fields.
Sincerely,



JENNY ROSE A. GESTOLE, EdD, LPT
Editor-In-Chief

Copyright 2022 by G Squared Research and Consultancy.

Articles published in this journal are the responsibility to the authors who submitted their papers for publication.

ALL RIGHTS RESERVED

No part of this journal may be reproduced in any form or by any means without the written permission of the copyright owners.

Published and exclusively distributed by:

G SQUARED RESEARCH AND CONSULTANCY

9 Villanueva Street, Poblacion, Santa Catalina, Ilocos Sur

Telephone number: (077) 6742480

Email Address: gsquaredresearchandconsultancy@gmail.com

TABLE OF CONTENTS

1	Scaffolding Plan for Administrative Culture and Performance of Elementary Schools 1 <i>¹Dennis C. Ramirez, ²Marino F. Baytec, ³Cecilia P. Aribuabo, ⁴Florence D. Ganir, ⁵Gerardo S. Garcia, ⁶Maricon M. Guillermo, and ⁷Eduardo T. Borja</i>
2	Summative Assessments in English for Senior High School 12 <i>¹Clarizza Joy B. Tumenes, ²Maricon M. Guillermo, ³Cecilia P. Aribuabo, ⁴Florence D. Ganir, ⁵Gregoria S. Najorda, and ⁶Joan Jesusa Velasco,</i>
3	My Backyard is a Roller Coaster: Lived Experience of Primigravida..... 25 During Covid-19 Pandemic <i>¹Lovely Joy B. Abella, ²Charliemane A. Bullalayao, ³Glenn A. Guira, ⁴Wiljohn M. Dela Cruz, and ⁵Elsie C. Pilar</i>
4	Difficulties of Grade 7 Students in 40 General Physics I <i>¹Lorimel P. Guillermo, ²Marino F. Baytec, ³Cecilia P. Aribuabo, ⁴Florence D. Ganir, ⁵Maricon M. Guillermo, and ⁶Gregoria Najorda</i>
5	Improvement Plan on the Utilization of Mobile Applications 50 with Technology-Enhanced Assessment (TEA) Tool <i>¹Earlvin Cliff P. Sahagun, ²Elsie C. Pilar, ³Joel B. Lopez, ⁴Florence D. Ganir, ⁵Gerardo C. Garcia, and ⁶Rolly C. Ramos</i>
6	Pedagogical Competencies of Alternative Learning System62 (ALS) Teachers: Its Influence on the Learners Achievement Motivation <i>¹Jonathan M. Ocampo</i>
7	Waste Ethylene Vinyl Acetate as a Bonding Enhancer for 79 Bituminous Asphalt Concrete <i>¹Robert G. Rabago, ²Rolando A. Duquez, ³Mildred A. Ramos, ⁴Elsie C. Pilar, ⁵Florence D. Ganir, and ⁶Jennifer Del Amen</i>
8	Cultural Perinatal Beliefs and Practices of ISNAG Mothers 92 <i>¹Michelle M. Andres, ²Roseli T. Aurelio, ³Charliemane C. Bullalayao, and ⁴Wiljohn S. Dela Cruz</i>
9	Realities of the Less Privileged Learners Toward 102 a School-Community Guidance Program <i>¹Jeanette Rose L. Llacuna, ²Gerardo S. Garcia, ³Cecilia P. Aribuabo, ⁴Maricon M. Guillermo, ⁵Joel B. Lopez, and ⁶Isie C. Pilar</i>

Scaffolding Plan for Administrative Culture and Performance of Elementary Schools

¹DENNIS C. RAMIREZ, ²MARINO F. BAYTEC, ³CECILIA P. ARIBUABO,
⁴FLORENCE D. GANIR, ⁵GERARDO S. GARCIA, ⁶MARICON M. GUILLERMO,
and ⁷EDUARDO T. BORJA

¹Public Schools District Supervisor, DepEd-Division of Ilocos Norte

²Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

³Dean, College of Teacher Education, Northern Christian College

⁴Dean, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁵Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁶Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁷Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

ABSTRACT

Introduction: School management and leadership are crucial. Leadership and administration in schools today are urgent, serious, and difficult as it struggles to meet schooling expectations. This study determined and analyzed the administrative culture in terms of instructional leadership competence and administrative skills of school heads as well as the performance of public elementary schools, after which a scaffolding plan was designed.

Methods: The study used Research and Development (R & D) as well as descriptive-correlational method of research using systematic random sampling among school heads of the Schools Division of Ilocos Norte. Three sets of instruments namely School Heads Instructional Leadership Competence Instrument (SHILCI), Administrative Skills Survey Questionnaire (ASSQ), School-Based Management Assessment, Processes and Tools (SBM-APAT) were used to gather data which were analyzed with frequency counts, means and Pearson Product Moment Correlation.

Results: The public elementary school heads who are middle-aged, predominately male, married, mostly are School Principal-I, relatively young in their present position as school heads, bachelor's degree with MA units, with few trainings in administration, agreed that they are Moderately Competent in their administrative culture on instructional leadership competence and administrative skills. The public elementary schools are in maturing level of practice in the School-Based management performance. The administrative culture of school heads is significantly related to the performance of the public elementary schools.

Conclusions: Based on the results a Scaffolding Plan was prepared, validated, and proposed to enhance the administrative culture and performance of elementary schools. The Scaffolding Plan was evaluated by the panel as highly valid on its objectives, strategies, time frame, persons involved, budgetary requirements and expected outcomes.

Keywords: Administrative Culture, Instructional Leadership, Research and Development, Correlation, Administrative Skills, Scaffolding Plan

INTRODUCTION

Life in the 21st century is an era of relentless and unforecastable change. The relationship between humans and the planet that sustains it has undergone enormous transformation. The world is a dynamic entity that poses quite powerful challenges to educational managers (OECD, 2016). With the ever-increasing demand for today's globalization, transformation in the education system needs to be put in place to ensure that the nation provides the best 21st-century education to present and future generations (Amadi, 2023).

Along this line, a school organization, like any other organization, must have a strong leadership and administration. Both set the way the school organization will go. The concretization of different administrative and leadership principles and practices in school setting should harmonize and complement each other. School leadership and administration challenge everyone in the field in promoting the culture of lifelong learning and teaching. The relationship between administration and leadership as summarized by Sabag and Cohen (2022) is that leadership deals with the vision, direction, effectiveness, and results focusing on the top line, while administration deals with establishing structures and systems to focus on the bottom line to get results. Azad et al., (2017) regarded both leadership and administration as indispensable in practice while Henderson (2017) stressed the close link of both which is necessary for organizational success.

Undeniably, the importance of administration and leadership in school operations cannot just be ignored (Prachagool & Nuangchalerm, 2021). The school organization evolves with the

changing times and the need for both leadership and administration today are urgent, serious, and challenging. It is grappled by different problems and pressures to address the demands of the education system. Educational institutions should strive to blaze the trail and be aggressive in coping and adapting with emerging issues and innovations to survive. This view is supported by Stoll (2019) who asserted that the school is a learning organization that must be studied which includes its relationship with its parts and the external environment. On the other hand, Darling-Hammond et al., (2019) stressed that administration of school is a complex function that requires sophistication in practice. Over the years, the dynamism of educational landscape necessitates a bigger job for all the stakeholders. A new school environment calls for decentralization for more school autonomy and accountability, improvement of student achievement results and implementation of pedagogical processes including a wider responsibility for local communities and public services (Krantz & Downey, 2021). All of these aspects aim to meet the educational demands of the 21st century.

Successful school administrators should then be responsive in fortifying necessary skills to create the best teaching and learning environment (Leatherman, 2022). The evolving needs of a school organization grow out of the never-ending pressure from the different stakeholders in the educational system (Chudy et al., 2021). The capacity to perform both as leaders and managers shapes the school organization. The call for enhancing leadership and administrative competencies of school heads as the most influential persons in promoting reform, change, and innovations in performing these functions poses a great challenge to educational leaders (Stasewitsch et al., 2022). The emerging

changes in leading and administering organizations should be dealt with by discovering new opportunities and threats attached to these and at the same time reconciling these with essential management processes. One must understand the vibrancy of school environment, but the application of proven fundamentals of planning, organizing, leading, and controlling remain unchanged. They are as relevant as they were years ago, but their form continuously evolves. Successful school heads' leadership and administration can be developed and expanded over time. Their ability to reflect on their own actions and perceptions and those of the people around them are necessary to recognize one's endeavor to be effective and efficient. What schools need now is not just putting the right persons in the position but equipping them with competencies that enhance and sustain a fruitful and meaningful learning environment.

In the Schools Division of Ilocos Norte, much have been done by school heads. However, despite such great efforts, results of assessments conducted by the division on school performances showed that there are gray areas that need improvement in school management and administration. Likewise, it was observed by the researcher, being a school head in the Department of Education, that instructional leadership and other administrative functions are given less attention due to overlapping activities and programs exacted by the Department. To some school heads in the elementary who are handling two or more schools, their supervisory or instructional leadership functions are often overlooked because of voluminous reports and Maintenance and Other Operating Expenses (MOOE) liquidations to be accomplished and submitted on time.

Accordingly, the thrust of the DepEd to empower school heads to implement school-based management has been intensified. This major trend of practice in current education reform aims at improving the quality of education services by the government and schools both public and private as well. Such a predicament provided the foundation for this study to investigate the administrative culture and performance of their respective schools.

OBJECTIVES OF THE STUDY

The study determined and analyzed the administrative culture of elementary school heads and performance of elementary schools in the Schools Division of Ilocos Norte after which a scaffolding plan was designed.

Specifically, it sought answers to the following questions: (1) What is the profile of the elementary school heads in terms of the following variables: demographic characteristics as to: age, sex, and civil status; professional qualifications as to position, length of service as school heads, highest educational attainment, and number of administrative trainings undertaken?; (2) What is the prevailing administrative culture as perceived by school heads and their teachers in terms of: instructional leadership competence, and administrative skills?; (3) What is the performance of elementary schools in terms of leadership and governance, curriculum and instruction, accountability and continuous improvement, and management of resources?; (4) Is there a significant relationship between the administrative culture of elementary school heads and performance of elementary schools?; (5) What scaffolding plan can be proposed to enhance the administrative culture of school heads and performance of

elementary schools?; and (6) What is the content validity of the scaffolding plan in terms of: objectives, strategies, persons involved, time frame, budget and expected outcomes?

METHODOLOGY

Research Design. The study employed Research and Development (R &D) and descriptive-correlational research design. It is Research and Development (R & D) because a plan was developed to enhance the administrative culture and performance of elementary schools (Suparman et al., 2022). It is descriptive for it described the school heads' profile, administrative culture, and performance of schools. It also utilized collected data of a specific population to determine its status. On the other hand, the study is correlational because it determined and analyzed the relationship of school heads profile variables instructional leadership competence, administrative skills, and performance of elementary schools. Correlation method provides indication as to how two or more things are related to one another or how well a specific outcome might be predicted by one or more pieces of information.

Population and Sampling. The systematic random sampling was employed in the selection of respondents and considered the fifty percent plus one sample size (50% + 1) of the school heads from various elementary schools of Division of Ilocos Norte and two teachers randomly selected as respondents. There were one hundred three (103) elementary school heads, and two hundred six (206) teachers were selected as respondents to provide quantitative data through the instruments.

Data Gathering Instrument. The study was anchored on four instruments to gather

needed data. It includes the School Head Instructional Leadership Competence Instrument developed by Alsaleh (2022) with some modifications, Administrative Skills Survey Questionnaire by Mansor and Hamid (2022), the Revised School-Based Management (SBM) Framework, Assessment Process and Tool (APAT) adopted from DepEd, and the scaffolding plan validation scale adopted from the study of Burgueno et al., (2022).

The instrument developed by Gedifew (2023) measured the profile of school heads and their instructional leadership competence. It consisted of 31 items representing three dimensions of instructional leadership: defining and communicating the school goals, monitoring, and providing feedback on the teaching learning process and promoting a school-wide professional development.

Another instrument utilized was developed by Gamile & Marpa (2022) which determined the school heads' administrative skills. It is a 35-point self-assessment questionnaire. Furthermore, the Revised School-Based (SBM) Framework, Assessment Process and Tool (APAT) (DepEd Order No. 83 series 2012) was used to evaluate the performance of elementary schools grounded on the four principles of leadership and governance, curriculum and instruction, accountability and continuous improvement and management of resources.

Online interviews were conducted with teachers in the elementary schools through available online platforms such as Google Meet, Zoom and Microsoft Teams to supplement quantitative data gathered and to add a greater depth of understanding. According to Yin (2003), one of the most important sources of case study information is interview. Unstructured interview questions were constructed to elicit in depth

responses. All questions were open-ended in nature.

Data Gathering Procedures. Prior to conduct of the survey, communication letters were prepared to seek permission from concerned authorities to conduct the study. After the permission was obtained, online survey was administered through Google Forms to selected and identified respondents. They were given one week to answer the questionnaires. To validate the data from selected respondents, an unstructured virtual interview was done with chosen respondents. Retrieval of the questionnaires was pegged at ninety (90) percent or higher. Data on performance of the elementary schools were gathered through the School-Based Management (SBM) assessment results from year 2019 and 2020, which was assessed by a group of panel from the School Governance Operation Division (SGOD) of the Schools Division of Ilocos Norte.

Data Analysis. All quantitative data gathered through the instruments were tallied, tabulated, analyzed, and interpreted accordingly using the following statistical tools: Frequency counts and percentage were used to measure the personal and professional profile of school heads. The use of weighted mean determined the final weight of each item in the instructional leadership competence, administrative skills and performance using the standardized instruments. To facilitate the interpretation of the scales and descriptive ratings used in the instruments, the following codes were utilized:

For the level of instructional competence of the school heads, the rating scale below with corresponding descriptions/interpretations was observed:

<i>Range Interval of Mean Scores</i>	<i>Descriptive Interpretation</i>
3.51-4.00	Highly Competent (HC)
2.51-3.50	Moderately Competent (MC)
1.51-2.50	Slightly Competent (SC)
1.00-1.50	Not competent (NC)

For the administrative skills of school heads, the following range interval of mean scores was utilized:

3.51-4.00	High (H)
2.51-3.50	Moderately High (MH)
1.51-2.50	Slightly Low (SL)
1.00-1.50	Low (L)

To assess the results of administrative culture as to instructional leadership and administrative skills, the following rating scale was used:

3.51-4.00	Very Skillful (VS)
2.51-3.50	Moderately Skillful (MS)
1.51-2.50	Skillful(S)
1.00-1.50	Not Skillful (NS)

In determining the performance of the elementary schools, the Revised School-Based Management (SBM) Framework, Assessment Process and Tool (APAT) was used with the following rating scale:

- 3- Evidence indicates practices and procedures satisfy quality standards
- 2- Evidence indicates planned practices and procedures are fully implemented
- 1- Evidence indicates early or preliminary stages of implementation
- 0- No evidence

The level of performance of the elementary schools were categorized as to “Advance” (2,5-3.0) being the highest means accredited, “Maturing” (1.5-2.4) which manifests present practices of introducing and sustaining continuous improvement process that integrates wider community participation and significantly improve performance and learning outcomes and “Developing” (.50-1.4) which means that there is an existing developing structures and mechanisms with acceptable level and extent of community participation and impact on learning outcomes.

For the validity of the scaffolding plan, the following range of intervals of mean scores was used:

<i>Range of Interval</i>	<i>Descriptive Interpretation</i>
3.51-4.00	Highly Valid (HV)
2.51-3.50	Valid (V)
1.51-2.50	Needs Improvement (NI)
1.00-1.50	Must be Changed (MC)

The Pearson Product Moment Correlation was used to measure if a significant relationship exists between demographic profile, instructional leadership competence, administrative skills, and performance of elementary schools.

RESULTS AND DISCUSSIONS

Demographic characteristics and professional qualification. Majority of the respondents involved in the study are middle-aged, predominantly male and married. Likewise, most of the respondents are School Principals, with the length of experience as school head within the range of 10-14 years, mostly bachelor’s degree holders with MA units, and have

administrative trainings for more than ten years.

Instructional leadership competence.

The elementary school heads are Moderately Competent in their instructional leadership along defining and communicating school goals as perceived by themselves and their teachers with a composite mean of 3.49 and 3.50 respectively. Of all the indicators in defining and communicating school goals, school heads have a “High Competency” in ensuring that curricular materials are consistent with the school goals with weighted means of 3.82 and 3.83 respectively.

Moreover, the elementary school heads perceived themselves and their teachers that they are “Moderately Competent” in instructional leadership as to monitoring and providing feedbacks to teaching-learning process as indicated by the composite means of 3.48 and 3.49. Among the indicators, school heads are “Highly Competent” in ensuring instructional time is not interrupted with the weighted means of 3.78 and 3.79 respectively.

School heads perceived themselves to have a “High Competence” in instructional leadership as to promoting a school-wide professional development as evidenced by the composite mean of 3.51 while teachers perceived them “Moderately Competent” as obtained by the weighted mean of 3.50. This result means that school heads provide opportunities for professional development to teachers that are aligned with school goals and provides professional literature and resources to them.

Administrative skills. School heads perceived themselves to have a “Moderately High Level” of administrative

skills as to communicating directives as shown by the composite mean of 3.49 while their teachers perceived that their school heads have “High Level” along this indicator as shown by the composite mean of 3.53. Taking responsibility of the decision rather than blaming others has the highest mean among the indicators as obtained by the weighted means of 3.69, while being responsive to subordinates needs rather than just own point of view has the lowest weighted means of 3.41 and 3.38 respectively.

Based on the collective responses of the respondents, the level of administrative skills of elementary school heads along motivating and inspiring was “High” as obtained by the composite mean of 3.57 and 3.53, respectively.

The composite rating given by the school heads (3.43) denoted a “Moderately High Level” of administrative skills along empowering and delegating while teachers rated higher than their school heads along this indicator as obtained by the composite mean of 3.57 with the descriptive interpretation of “High”. Among the indicators, school heads registered “High Level” on helping subordinates feel competent in their task by recognizing and celebrating their successes as perceived by themselves and their teachers as obtained by the weighted means of 3.74.

School heads perceived themselves to have a “High Level” of administrative skills along with managing stress and developing resiliency based on the composite mean of 3.55 while teachers perceived them to have a “Moderately High Level” of administrative skill as obtained by the composite mean of 3.37. Among the indicators, school heads provide a high support on school priority programs and projects amidst different circumstances in its implementation accounted to internal

and external factors in the workplace on a high level as obtained by the weighted mean of 3.83, although teachers perceived them to have a “Moderately High Level” on this indicator as seen by the obtained weighted mean of 3.37. On the other hand, facing adversities, difficulties and stress has the lowest mean scores of 3.49 and 3.23 respectively.

Moreover, school heads obtained a “Moderately High Level” of administrative skills along with managing conflicts as obtained by the composite means of 3.48 and 3.43 respectively. It can be noted that among the given indicators; seeking additional information and asking subordinates opinion before making decisions has the highest weighted mean of 3.53 or “High” from the school heads while their teachers rated it the lowest as indicated by the weighted mean of 3.03 or “Moderately High”.

In addition, school heads have a “High Level” of administrative skills along building effective teams and teamwork as indicated by the composite mean of 3.54 while teachers rated them “Moderately High” with the weighted mean of 3.39. It could be observed that among the indicators, encouraging group participation in making decision has the highest obtained mean score of 3.63 from the school heads while teachers rated it lowest with the mean score of 3.31.

Finally, elementary school heads have a “High Level” of administrative skills along leading positive change as obtained by the composite means of 3.65 and 3.61 respectively. Giving attention on building subordinates strengths, not just overcoming their weaknesses has the highest perceived ratings of the respondents with the weighted means of 3.83 and 3.91 while creating positive teamwork in school when interacting with subordinates has the lowest

mean of 3.31 for school heads and knowing how to engage subordinates to commit envision positive change (3.21) for teachers.

Performance of elementary schools. The performance of elementary schools in the Schools Division of Ilocos Norte is in “Maturing Level” of practice as indicated by the over-all mean of 1.84. The increased performance of elementary schools in the SBM from 2019-2020 signified that schools had sustained and improved a lot. The performance of school principals in public schools is crucial to the overall success of the education system (Arghode et al., 2022). Principals play a vital role in setting the tone and direction of a school, creating an environment that fosters learning and growth for students, teachers, and staff (Garcia, 2018). A high-performing principal is essential for ensuring that a school is effective in achieving its goals and providing a quality education to its students. In particular, the role of the principal in managing and leading the school is critical to improving student outcomes. This includes setting high expectations, establishing clear policies and procedures, and promoting a positive school culture. Effective principals also have a deep understanding of the educational needs of their students, and work to ensure that those needs are met through effective programs and resource allocation (Kaya & Selvitopu, 2019).

Relationship Between Administrative Culture and Performance. Instructional leadership competencies are found to be significantly related to performance along with curriculum and instruction and accountability and continuous improvement as evidenced by the obtained coefficient correlation of .213, and .214 with the p-value of .031 and .030, respectively, which are lower than 0.01 level of significance. On the other hand,

leadership and governance and management of resources has no significant relationship with instructional leadership competence as obtained by correlation coefficient of .051 and .090 with the p-value of .006 and .368 respectively.

Administrative skills are very significantly related to all the indicators of the performances of elementary schools as evidenced by the obtained coefficient correlation of .344, .368, .357, and .358 with the p-value of .000 of all components, which are lower than 0.05 level of significance.

The administrative culture within a public school can have a significant impact on the performance of its principal. Administrative culture refers to the shared values, beliefs, and practices that guide decision making and behavior within a school. This culture can either support or hinder the effectiveness of a school principal in carrying out their duties (Szabo et al., 2022). A positive and supportive administrative culture can lead to higher levels of job satisfaction and motivation among school principals, which in turn can result in improved performance. Principals who feel supported and valued by their colleagues and superiors are more likely to take risks and make innovative decisions, as well as to engage in effective communication and collaboration. On the other hand, a negative or unsupportive administrative culture can lead to burnout and low morale among principals, leading to decreased job satisfaction and performance.

Furthermore, the administrative culture within a school can also impact the working conditions and resources available to principals. Schools with a positive administrative culture are more likely to provide the necessary resources and support that principals need to effectively lead their

schools. This includes access to professional development opportunities, resources for program and resource allocation, and a supportive network of colleagues and superiors (Thomas, 2020).

Finally, the relationship between administrative culture and the performance of school principals in public schools is a critical one. A positive and supportive administrative culture can lead to higher levels of job satisfaction and motivation among principals, which in turn can result in improved performance (Portey, 2021). On the other hand, a negative administrative culture can have a detrimental impact on the performance and well-being of school principals. It is important for education leaders and policymakers to work to create and maintain a supportive and positive administrative culture within public schools, to ensure the effectiveness of school principals and the success of the education system.

CONCLUSIONS

The following conclusions were drawn: (1) most of the public elementary school heads are middle-aged, male, married, school principal I, relatively young in their present position as school heads, bachelor's degree holders with MA units, and have limited administrative trainings undertaken; (2) school heads are "Highly Competent" on their instructional leadership along promoting a school-wide professional development as well as on their administrative skills along motivating and inspiring and leading positive change; (3) the public elementary schools of School Division of Ilocos Norte are in "Maturing Level" of practice, (4) the instructional leadership and administrative skills of school heads are significantly related to performance of the elementary schools; (5)

school heads are "Moderately Competent" along instructional leadership as to defining and communicating goals and monitoring and providing feedback as well as on their administrative skills along communicating directives, empowering and delegating, managing stress and developing resiliency, managing conflict and building effective teams and teamwork. The results indicate that it is proper to propose a Scaffolding Plan.

References

1. Alsaleh, A. A. (2022). The Influence of Heads of Departments' Instructional Leadership, Cooperation, and Administrative Support on School-Based Professional Learning in Kuwait. *Educational Management Administration & Leadership*, 832-850.
2. Amadi, C. S. (2023). The integration of 21st-century skills in science: A case study of Canada and the USA. *Education and Urban Society*, 56-87.
3. Arghode, V., Lathan, A., Alagaraja, M., Rajaram, K., & McLean, G. N. (2022). Empathic organizational culture and leadership: conceptualizing the framework. *European Journal of Training and Development*, 239-256.
4. Azad, N., Anderson, G., & Sobotka, J. L. (2017). Leadership and management are one and the same. *American Journal of Pharmaceutical Education*, 1-12.
5. Burgueno, R., Calderon, A., Sinelnikov, O., & Medina-Casaubon, J. (2022). Development and initial validation of the education scale. *Measurement in Physical Education and Exercise Science*, 73-87.

6. Chudy, S., Neumeister, P., Koribská, I., Strouhal, M., & Selická, D. (2021). Contemplative insight as an opinion conflict and a search for meaning in the context of innovative elements of the revolution industry 4.0. *Education and Information Technologies*, 673-682.
7. Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 97-140.
8. Gamile, J., & Marpa, E. (2022). School environment and school heads' managerial skills: Looking into their relationships to school's performance. *International Journal on Social and Education Sciences*, 218-235.
9. Garcia, T. D. (2018). Distributed leadership and teacher job satisfaction in Singapore. *Journal of Educational Administration*, 127-142.
10. Gedifew, M. T. (2023). Instructional Leadership Development Practices in Ethiopia: Curriculum Development and Implementation Practices, and Career Development Frameworks. *Journal of School Leadership*, 50-65.
11. Henderson, T. (2017, May 8). *Why innovation is crucial to your organization's long-term success*. Retrieved from Forbes: <https://www.forbes.com/sites/forbescoachescouncil/2017/05/08/why-innovation-is-crucial-to-your-organizations-long-term-success/?sh=7a0b16e23098>
12. Kaya, M., & Selvitopu, A. (2019). A meta-analysis of the effects of some factors on teachers' classroom management skills. *International Journal of Contemporary Educational Research*, 409-425.
13. Krantz, A., & Downey, S. (2021). Thinking about art: The role of single-visit art museum field trip programs in visual arts education. *Art education*, 37-42.
14. Leatherman, J. M. (2022). Collaborative Inclusive Programs: Influences of Administrators and Teacher Leaders. *Journal of the American Academy of Special Education Professionals*, 38-50.
15. Mansor, A., & Hamid, A. (2022). Challenges and Strategies in Managing Small Schools: A Case Study in Perak, Malaysia. *Educational Management Administration & Leadership*, 694-710.
16. OECD. (2016). *Innovating education and educating for innovation: The power of digital technologies and skills*. Paris: OECD Publishing.
17. Portey, A. (2021). An administrator's role in motivating teachers. *BU Journal of Graduate Studies in Education*, 4-7.
18. Prachagool, V., & Nuangchalerm, P. (2021). Perspectives of Thai educators toward 21st century instruction. *Journal of Education and Learning*, 432-437.
19. Sabag, Z., & Cohen, S. (2022). Adapting the education system to 21st century skills: The case of Israel. *European Journal of Educational Research*, 1911-1921.
20. Stasewitsch, E., Dokuka, S., & Kauffeld, S. (2022). Promoting educational innovations and change through networks between higher education teachers. *Tertiary Education and Management*, 61-79.

21. Stoll, L. (2019). The school as a learning organization: A review revisiting and extending a timely concept. *Evaluation and Strategic Education*, 1-10.
22. Suparman, A., Rohaeti, E., & Wening, S. (2022). Development of Attitude Assessment Instruments towards Socioscientific Issues in Chemistry Learning. *European Journal of Educational Research*, 1947-1958.
23. Szabo, E., Korodi, K., Szel, E., & Jagodics, B. (2022). Facing the inevitable: The effects of coronavirus disease pandemic and online teaching on teachers' self-efficacy, workload and job satisfaction. *European Journal of Educational Research*, 151-162.
24. Thomas, L. (2020). Transformational school leadership as a key factor for teachers' job attitudes during their first year in the profession. *Educational Management Administration & Leadership*, 106-132.

Summative Assessments in English for Senior High School

¹CLARIZZA JOY B. TUMENES, ²MARICON M. GUILLERMO, ³CECILIA P. ARIBUABO, ⁴FLORENCE D. GANIR, ⁵GREGORIA S. NAJORDA, and ⁶JOAN JESUSA VELASCO,

¹Instructor, Mariano Marcos State University

²Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

³Dean, College of Teacher Education, Northern Christian College

⁴Dean, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁵Vice President for Academic Affairs, Northwestern University

⁶Professor, Northwestern University

ABSTRACT

Introduction: Language ability information is important and necessary. Universities are unlikely to admit students without some understanding of their English competence or competency. The same can be said for companies that hire interpreters or translators. These entities certainly need dependable measures of language ability.

Methods: This descriptive research design aimed to develop summative assessments to address the least mastered competencies in English among Senior High School students based on the level of English competencies as perceived by the Senior High School English teachers and the problems encountered by teachers in teaching the English competencies. The study employed a validated questionnaire to gather data. The teacher respondents were selected using random sampling. Frequency and percentage were used to analyze the data.

Results: The study found out that teachers perceived learners to be at emerging level in listening competency, expanding level in reading, and viewing competency, and emerging level in writing competency. Moreover, all the English competencies were rated serious as to the problems encountered by teachers in teaching the English competencies.

Conclusions: Based on the results of the survey conducted to SHS English teachers, the following English language competencies, namely, reading, writing, and listening may be considered in the constructing of summative assessments. These English competencies were perceived by the teachers to have the lowest levels and contain weak points that need to be addressed through assessment tools. In like manner, serious cases of problems encountered in teaching these competencies may also be considered.

Keywords: Summative Assessments in English, English Language Competencies, Level of Language Competency, Problems Encountered, Competencies

INTRODUCTION

Knowledge about a person's linguistic prowess is crucial and essential. Colleges and universities are hesitant to accept students who cannot demonstrate at least basic proficiency in English. The same is true for businesses that need interpreters or translators. These organizations need accurate tests of language proficiency (McGregor & Yen, 2022).

There is a great potential for instructors and students to learn from one another in today's more varied classrooms. Considering the increasing number of students throughout the globe who are learning English as a second language, it is essential that both mainstream and resource instructors have a firm grasp on how to design and administer multilingual and multicultural literacy programs. In today's context of growing responsibility via student achievement on standardized exams, it is more important than ever to provide instruction in English to kids for whom English is a second language (Cairns, 2021).

Senior High School students must realize and be aware of their level of competencies to work further in coping with the demands of the curriculum exits, namely, business, college, midlevel training, and work. Likewise, examination is an important part of every teaching and learning experience. It helps teachers determine if the teaching process is effective. For the learners, it gives them a sense of accomplishment and requires them to study hard, showing them what skills, they need to master and what content they need to understand. Indeed, testing is an integral part of the evaluation process in education.

Since examinations are still considered useful, they will likely continue to be a focal point of the school system. Teachers may gauge whether their learners grasp concepts and information via the use of examinations. Tests that are both challenging and fair do a similar job of inspiring students and guiding them in the organization of their study time. According to studies mentioned by Walck-Shannon et al., (2021), including those by Sense et al., (2021), students tailor their study habits to the kind of questions they anticipate seeing on exams. If they think the test will be fact-based, they will cram for it; if they think it will assess their ability to solve problems or apply what they have learned, they will concentrate on doing the latter. Teachers might derive insights into the effectiveness of their lessons by analyzing student test results. Lastly, exams may help students learn more effectively by revealing which concepts and abilities they still need to work on.

At the conclusion of each marking period, teachers give their learners a final exam designed to assess how much they have learned over the course of the term. Summative assessments include a variety of test formats designed to gauge the mastery of certain competencies. Most instructors rely on this as the foundation for their final grade. However, there are theoretical requirements that must be met in the design of summative tests, including validity, reliability, objectivity, discriminating power, and practicality. Simply put, the validity of a test may be determined by doing a thorough analysis of its content to see whether it covers a sufficient subset of the intended behavioral area for assessment. In the same manner, a test is considered dependable if it provides a fair assessment of a student's abilities (Kanevsky et al., 2022).

Students, especially those in upper-level courses, need to be exposed to assessments that adhere to the essential guidelines in designing and constructing assessments, such as the language competencies that are tested and need to be mastered, because they will be taking standardized tests outside of the formal education setting, such as the Basic Education Exit Assessment, college entrance exams, government examinations, among others. Therefore, it is essential to design and introduce students to language proficiency assessments so that they are well-equipped for life beyond high school.

English is being used as a medium of instruction at the elementary, secondary, and postsecondary levels. Because English is not the country's original language, it is the educational system's job to prepare students to develop skills in hearing, speaking, reading, and writing in other languages, notably English. Since it is difficult to compete in the global marketplace without some level of English ability, English is seen as a qualification rather than a foreign language to be taught (Hayes, 2022).

Piiranen-Marsh and Lilja (2022) also noted some problems that include funding and delay in the transport of instructional resources and materials and issues of pedagogy in language teaching. This time, English language instruction focused heavily on syntax and structure, prohibiting the usage of the first language, which is unavoidable for a non-native English speaker. Other drawbacks in language education, aside from pedagogical issues, include: short school sessions, fewer years of training, a lack of text and additional materials, a high number of unskilled teachers, big class sizes, and imprecise language models.

In literacy learning, listening, viewing, speaking, representing, writing, and reading are all interconnected cognitive and social activities. Through reading, observing, and hearing, students derive meaning from materials provided by others. Students use writing, speaking, and modeling to create meaning in order to communicate with others. None of the language arts can be totally separated from the others in real-life learning situations.

Enders et al., (2021) stressed that teachers should provide learners with worksheets involving quiz, questionnaire, and sentence stems to be completed, statements to be discussed and the four language skills exercises as today, language learning is seen as an activity which perceived students as complex human beings, and not simply as language learners. Students need practice in all skills in order to become efficient in the English language.

Moreover, Kloser et al., (2022) stated that in classrooms, teachers use tests to evaluate students' performance and see where they can adjust. This helps both the teacher and the learners to determine how much they have taught and learnt, respectively. Likewise, testing motivate students to learn. Under normal circumstances, then the date of either weekly or monthly test is announced by the subject teacher, serious students prepare adequately in order for them to pass with flying colors. It also encourages those who perform below par to study hard for them to pass the next test. Furthermore, testing gives teachers the opportunity to report to parents their children's progress.

Consequently, based on Chomsky's theory (Ayriza et al., 2020), linguistic competence is man's unconscious knowledge of languages and the organizing principles of a language. Therefore, linguistic competence refers to the

knowledge and the ability of individuals for appropriate language use in the communicative events in which they find themselves in any particular speech community.

Furthermore, the theory of language testing, as Kansizoglu and Akdogdu (2022) asserts, assumes that language is a system of habits of communication. These habits permit the communicant to give his conscious attention to the over-all meaning he is conveying or perceiving. These habits involve matters of form, meaning, and distribution at several levels of structure namely those of the sentence, clause, phrase, word, morpheme, and phoneme.

With these arguments, this research was anchored on these theories as tests should reflect effective use of the language. To achieve the very purpose of testing, that is to translate educational goals to good tests, these must be designed in consistency with addressing the target competencies and objectives.

RESEARCH PROBLEMS

This study investigated the English competencies of learners and problems of teachers in teaching these competencies in English Senior High School classes of the Schools Division of Ilocos Norte as basis of developing of summative assessments. Specifically, it sought to probe the following questions: (1) What is the level of competencies of Senior High School students in English as perceived by the SHS English teachers as to listening, reading, and viewing; and writing?; (2) What are the problems encountered by teachers in teaching English competencies in terms of listening, reading, writing; and viewing?; and (3) What intervention can be recommended to enhance the competencies of students in English?

METHODS

Research Design. This study utilized the descriptive research design. It determined the level of competencies in English language of SHS students as perceived by the Senior High School English teachers of Bacarra, San Nicolas, Sarrat, and Vintar, Ilocos Norte. It further identified the problems encountered by English teachers in teaching the English language competencies. The results of which were the bases in developing the summative assessments as intervention tool in addressing the low level of competencies and problems in teaching them to students.

Participants. The research was conducted at the Department of Education Schools Division of Ilocos Norte. The Division is clustered into districts and these districts are combined into units. There are five (5) units in the Division of Ilocos Norte. In particular, the study investigated the level of English competencies of SHS students from the Central Unit of the Schools Division of Ilocos Norte. There are two (2) public secondary schools in Bacarra, two (2) in San Nicolas, three (3) in Sarrat, and five (5) in Vintar. Total enumeration was used in identifying the sample of the study. Thus, all SHS English teachers in the Central Unit was used as sample. In total, there were twenty-three 23 SHS English teachers who served as respondents of the study.

Research Instrument. A survey questionnaire was given to the SHS English teachers to determine the level of competencies and the problems encountered in teaching the English language competencies. The survey questionnaire was divided into two parts: the level of English competencies of SHS; and the problems encountered by the teachers in teaching the English

competencies. In identifying the level of English competencies, questions were adapted from the Stages of English Language Proficiency standards developed by Teaching English to Speakers of Other Languages (TESOL). Likewise, the problems encountered by teachers in teaching the English competencies were determined in the second part of the survey questionnaire adapted from the interview questions by Alnahigh and Altalhab (2019). Some modifications were incorporated to be able to adjust to the needs and purpose of this study.

Data Collection. The study was governed by the following stages in the collection of pertinent data. First, the researcher requested for the conduct of gathering data to SHS English teachers from the Schools Division of Ilocos Norte (SDOIN) – Superintendent’s Office.

Second, after the granting of request by the Superintendent, the researcher coordinated through online messaging and/or personally give letter of request to the school heads of the different secondary schools in the Central Unit of the SDOIN.

Third, the researcher conducted the survey to SHS English teachers in the Central Unit on the perceived level of English language competencies and problems encountered in teaching the English language competencies. Online survey was used and questionnaire was transformed to Google Forms considering the restrictions brought about by the present pandemic.

Finally, the results were analyzed as bases for designing and constructing table of specifications along with the summative assessments as intervention material in

addressing the weak points or low level of English competencies and the serious problems in teaching the language competencies.

Data Analysis. The data gathered from the administration of the survey questionnaire to teachers in identifying the level of English competencies of SHS students as perceived by the SHS English teachers were analyzed using frequency count. The level of competency was determined with the range of values as the following:

Level	Descriptive Interpretation
5	Bridging
4	Expanding
3	Developing
2	Emerging
1	Starting

Moreover, the problems encountered in teaching the English competencies were analyzed using weighted mean with the range of values as follows:

Range of Means	Descriptive Interpretation
3.51 – 4.50	Strongly Agree (SA)
2.51 – 3.50	Agree (A)
1.51 – 2.50	Disagree (D)
1.00 – 1.50	Strongly Disagree (SD)

RESULTS

This part of the paper presents the analysis and interpretation of results of data gathered anchored on the research problems.

Level of English Competencies of Senior High School Students as Perceived by SHS English Teachers

Table 1 presents the perception of the SHS English teachers as respondents on the level of English competencies of SHS students

Table 1
Level of English Competencies of Senior High School Students as Perceived by SHS English Teachers

English Competencies	Frequency	Percentage (%)
<i>Listening (Students...)</i>		
Level 1: understand phrases and short sentences using familiar vocabulary.	3	13.04
Level 2: can understand basic instructions or take part in a basic factual conversation on a predictable topic.	6	26.09
Level 3: may understand and use some specialized academic vocabulary.	5	21.74
Level 4: may have difficulty understanding and using some idioms, figures of speech, and words with multiple meanings.	5	21.74
Level 5: can contribute effectively to meetings within own area of work or cope with abstract expressions.	4	17.39
	Level of Competency	2 (Emerging)
<i>Reading/Viewing (Students...)</i>		
Level 1: construct meaning from text primarily through non-print features (e.g., illustrations, graphs, maps, tables).	1	4.35
Level 2: locate specific, predictable information in simple everyday or environmental print.	7	30.43
Level 3: can read quickly enough to cope with an academic course, to read the media for information or to understand non- standard correspondence	2	8.70
Level 4: may read independently but may have occasional comprehension problems, especially when processing grade-level information.	12	52.17
Level 5: make minimal errors that are difficult to spot or are generally corrected when they occur	1	4.35
	Level of Competency	4 (Expanding)
<i>Writing (Students...)</i>		
Level 1: surface features and rhetorical patterns of the native language (such as replication of ways of structuring text from native culture and language)	1	4.35
Level 2: write for themselves to express their own personality and personal thoughts.	8	34.78
Level 3: texts still containing a considerable number of unconventional features.	6	26.09
Level 4: make errors in one or more domains that generally do not interfere with communication	6	26.09

Level 5: can produce clear, smoothly flowing, well-structured texts of differing lengths and degrees of linguistic complexity.	2	8.70
Level of Competency		2 (Emerging)

Legend:

Level	Descriptive Interpretation
5	Bridging
4	Expanding
3	Developing
2	Emerging
1	Starting

Table 1 shows that as to listening competency, students are at Level 2 emerging with six (6) responses at 26.09%. This is followed by Level 3 and Level 4 with five (5) responses at 21.74% each. Level 5 and Level 1 come next with four (4) responses at 17.39% and five (5) responses at 13.04%, respectively.

The table also shows the reading/viewing competency of SHS students. It is shown that majority of the teacher respondents perceived students to have Level 4 expanding reading and

viewing competency with twelve (12) responses at 52.17%; followed by Level 2 with seven (7) responses at 30.43%; Level 3 with two (2) responses at 8.70%; Level 1 and Level 5 with one (1) response at 4.35% each.

Table 1 further shows that the student's writing competency is at Level 2 emerging with eight (8) responses at 34.78%; followed by Level 3 and Level 4 with six (6) responses at 26.09% each; Level 5 with two (2) responses at 8.70%; and Level 1 with one (1) response at 4.35%.

Problems Encountered by SHS Teachers in Teaching the English Competencies

Table 2 shows the problems encountered by SHS teachers in teaching the English competencies.

Table 2
Problems Encountered by SHS Teachers in Teaching English Competencies

Problems Encountered	Weighted Mean	Descriptive Interpretation
Listening		
1. Inability to perform adequate listening practices	2.83	Serious
2. Lack of concentration, apathy, anxiety, lack of knowledge, prejudice, and inattention	2.96	Serious
3. Lack of quality listening materials	2.78	Serious
4. Different accents in listening materials or text, lack of standards in the speed of speech	2.78	Serious
5. Lengthy listening materials/text, complicated contents, and lack of visuals	2.87	Serious
Composite Mean	2.84	Serious
Reading		

1. Deficiencies in textbooks and other reading materials	2.74	Serious
2. Lack of vocabulary, and grammar knowledge	2.83	Serious
3. Inability to attribute meaning to texts (including limited schema or prior knowledge about a text)	3.00	Serious
4. Lack of retention and difficulty answering comprehension questions	2.87	Serious
5. Difficulties in making inferences.	2.87	Serious
6. Difficulties in getting the main idea and understanding explicit information.	2.74	Serious
Composite Mean	2.84	Serious
Writing		
1. Lack of motivational factors	2.87	Serious
2. Difficulty in organizing thoughts in correct way	3.04	Serious
3. Insufficient grammar knowledge, vocabulary, spelling, and mechanics	2.91	Serious
4. Lack of activities related to the development and acquisition of writing skills in textbooks	2.57	Serious
5. Differences between sentence structures in Filipino, mother tongue, and English	2.70	Serious
Composite Mean	2.82	Serious
Viewing		
1. Limited prior knowledge about a topic or theme	2.78	Serious
2. Lack of opportunity to create and respond to visual texts	2.70	Serious
3. Lack of or limited graphics/pictures in textbooks and other learning materials	2.74	Serious
4. Limited technology skills	2.61	Serious
5. Limited narrative analysis skills (ability to recall and recognize what happen and why, with reference to genre codes and conventions)	2.91	Serious
6. Difficulty comparing and contrasting media representations in reality	2.61	Serious
Composite Mean	2.72	Serious
Overall Mean	2.80	Serious

Legend:

<i>Range of Means</i>	<i>Descriptive Interpretation</i>
3.51 – 4.50	Very Serious (SA)
2.51 – 3.50	Serious (A)
1.51 – 2.50	Slightly Serious (D)
1.00 – 1.50	Not Serious (SD)

As shown in Table 2, all the English competencies were rated “Serious” with overall mean of 2.80. However, of the five competencies, the problems mostly

encountered are with listening and reading with composite mean of 2.84 for both competencies. These are followed by

writing with 2.82 composite mean; and viewing with composite mean of 2.72.

As to listening, teacher respondents agree that lack of concentration, apathy, anxiety, lack of knowledge, prejudice, and inattention is the main problem encountered with 2.96 (Serious) weighted mean. This is followed by lengthy listening materials/text, complicated contents, and lack of visuals with (2.87) “Serious” weighted mean; and inability to perform adequate listening practices with (2.83) “Serious” weighted mean.

Moreover, as to reading, problem on inability to attribute meaning to texts including limited schema or prior knowledge about a text is mostly encountered by teachers with 3.00 (Serious) weighted mean. This is followed by lack of retention and difficulty answering comprehension questions and difficulties in making inferences with 2.87 (Serious) weighted mean for each of the variable.

As regard to writing competency, teacher respondents claim that students have difficulty in organizing thoughts in correct way with 3.04 (Serious) weighted mean. This is followed by insufficient grammar knowledge, vocabulary, spelling, and mechanics with 2.91 (Serious) weighted mean; and lack of motivational factors with 2.87 (Serious) weighted mean.

Furthermore, there is limited narrative analysis skills (ability to recall and recognize what happen and why, with reference to genre codes and conventions) is the main problem encountered in teaching viewing with weighted mean of 2.91 (Serious). This is followed by limited prior knowledge about a topic or theme with 2.78 (Serious) weighted mean; and lack of or limited graphics/pictures in textbooks and other learning materials with 2.74 (Serious) weighted mean.

DISCUSSIONS

The teacher respondents categorized the listening competency of students as Level 2 emerging which describes students to understand basic instructions and can take part in a basic factual conversation on a predictable topic.

This goes to show that students can understand listening texts with familiar vocabularies and familiar sounds used in the academic setting but may be challenged when faced with real world listening engagements especially for second language learners. It is highly evident that intervention material is needed in order to improve the listening competency of the students since they are still at emerging level. It is also evident that there are still students who belong to starting level, which means they are only able to understand phrases and short sentences using familiar vocabulary. Thus, as pointed out by Caruso et al., (2017) they need to be exposed to a wide variety of listening materials and integrate them in assessment procedures.

With the reading/viewing competency of SHS students, majority of the teacher respondents perceived students to have Level 4 or “Expanding” competency though there were still students who belong to Level 2 (Emerging) and Level 1 (Starting). Generally, students may read independently but may have occasional comprehension problems, especially when processing grade-level information (Murray, 2019).

Students can read quickly enough to cope with an academic course, to read the media for information or to understand non-standard correspondence and may read independently but may have occasional comprehension problems, especially when processing grade-level information.

Similarly, there are still students perceived that belong to “Starting Level” who can only construct meaning from the text through non-print features such as illustrations, graphs, maps, and tables. Hence, intervention should be done to address the gaps between the level of competencies in reading and viewing (Nilsson, 2021).

The student’s writing competency is at Level 2 (Emerging) which describes learners as able to write only for themselves to express their own personality and personal thoughts. Some students though are still at Level 1 (Starting) which they have structure and rhetorical patterns issues in writing.

It is derived from the result that students need intervention as majority belongs to “Emerging” level and the presence of students perceived who still belongs to the “Starting” level where structures and rhetorical patterns of the native language is carried over in English writing discourses. Therefore, students need to work more on structures and patterns. Teachers need to expose them into wide variety of written texts and integrate such in constructing assessments (Primor & Katzir, 2018).

All the English competencies were rated “Serious” as to the problems encountered by teachers in teaching the English competencies. However, of the four competencies, the problems mostly encountered are with listening and reading competencies. These are followed by writing and viewing. As to speaking, teachers encountered serious problem on students’ lack of confidence in speaking due to anxiety, fear, shame, insecurity, shyness, excitement, unwillingness, embarrassment. As to listening, teacher respondents have serious problem on students’ lack of concentration, apathy,

anxiety, lack of knowledge, prejudice, and inattention. This is followed by lengthy listening materials/text, complicated contents, and lack of visuals; and inability to perform adequate listening practices. As to reading, serious problem on inability to attribute meaning to texts including limited schema or prior knowledge about a text is serious problem encountered by teachers. This is followed by lack of retention and difficulty answering comprehension questions and difficulties in making inferences. As regard to writing competency, teacher respondents claim that students have serious problem in organizing thoughts in correct way. This is followed by insufficient grammar knowledge, vocabulary, spelling, and mechanics, and lack of motivational factor. There is limited narrative analysis skills (ability to recall and recognize what happen and why, with reference to genre codes and conventions) is the serious problem encountered in teaching viewing. This is followed by limited prior knowledge about a topic or theme, and lack of or limited graphics/pictures in textbooks and other learning materials.

Knowing the problems faced by learners in reading, listening and comprehension is crucial for several reasons. First, is identification and assessment of weaknesses. Understanding the specific difficulties faced by learners in these areas can help educators identify the weaknesses in a learner's skills and tailor their teaching methods accordingly (Kasani & Mourkani, 2020). This can lead to more effective learning and better outcomes. Second, is targeted intervention. Knowing the problems faced by learners in these areas can help educators provide targeted interventions that specifically address these difficulties (Machera, 2017). This can include things like providing additional support, modifying teaching methods, or recommending additional resources. Third,

is improved learning outcomes. By addressing the problems faced by learners in reading, listening and comprehension, educators can help learners to improve their skills and achieve better learning outcomes (Alghonaim, 2020). This can lead to increased confidence, motivation, and success in their academic pursuits. Finally, better preparation for life skills. Reading, listening and comprehension skills are important life skills that are needed for success in school and in the workplace (Keyser, 2021). By addressing these difficulties, learners can be better prepared for success in all areas of their lives.

Finally, knowing the problems faced by learners in reading, listening and comprehension is critical for effective teaching and improved learning outcomes. It is important for educators to be proactive in identifying and addressing these difficulties to help learners reach their full potential (Terada, 2019).

CONCLUSION

Based on the study's key results, the researchers infer that teachers at SHS saw their students' proficiency in English as developing in the areas of listening and writing and growing in the areas of reading. Furthermore, the SHS students now are in a more advanced grade of high school, who need even greater improvements to the skills. The incapacity of students to attach meaning to texts due to factors such as insufficient schema and previous information of a book in reading has been identified as a major challenge for English instructors when attempting to impart these skills to their students. When writing, they also struggle with constructing logical arguments. Moreover, while instructing viewers, it is important to address the issue of students' inadequate narrative analysis abilities, which include their lack of

recollection and recognition of what happened and why, in relation to genre standards and conventions.

RECOMMENDATIONS

Considering the study's results and interpretations, the authors suggest the following: (1) Educators may include the English language competencies or macro skills into their lessons. As a result, the functions of language are continuous; (2) Assessments may be used in the future to gauge pupils' English language proficiency and tailor instruction accordingly; (3) Since this research relied on surveys from educators, more research on learners' English language abilities may be undertaken utilizing exams; (4) The findings may be used as a benchmark for developing curriculum and improvement policies in English; (5) Based on the findings, summative exams might be constructed to familiarize students with language test processes and topics; students may then utilize some of the information in classroom activities to better their English language skills; (6) the tests may be given out to teachers as a model or guide for creating their own tests, and they could be included into test banks.

References

1. Alghonaim, A. (2020). Impact of related activities on reading comprehension of EFL students. *English language teaching*, 1-13.
2. Alnahigh, F., & Altalhab, S. (2019). The level and sources of foreign language speaking anxiety among Saudi EFL university students. *Advances in language and literacy studies*, 55-64.
3. Ayriza, Y., Triyanto, A., Setiawati, A., Faida, A., & Gunawan, N. (2020). Exploring Children's Career Interests and Knowledge

- Based on Holland's Theory.
International Journal of Instruction, 643-662.
4. Cairns, R. (2021). Exams tested by COVID-19: An opportunity to rethink standardized senior secondary examinations. *Prospects*, 331-345.
 5. Caruso, M., Colombi, A., & Tebbit, S. (2017). Teaching how to listen: Blended learning for the development and assessment of listening skills in a second language. *Journal of university teaching and learning practice*, 1-21.
 6. Enders, N., Gaschler, R., & Kubik, V. (2021). Online Quizzes with Closed Questions in Formal Assessment: How Elaborate Feedback Can Promote Learning. *Psychology Learning and Teaching*, 91-106.
 7. Hayes, D. (2022). Early Language Learning in Context: A Critical Socioeducational Perspective. *Multilingual matters*, 1-10.
 8. Kanevsky, L., Lo, C., & Marghelis, V. (2022). Individual or Collaborative Projects? Considerations Influencing the Preferences of Students with High Reasoning Ability and Others Their Age. *High Ability Studies*, 87-199.
 9. Kansizoglu, H., & Akdogdu, E. (2022). Examining the Relationship between Prospective Teachers' Listening Skills, Reading Habits, Effective Speech Self-Efficacy, Writing Dispositions and Communication Skills: A SEM Approach. *International Journal of Contemporary Educational Research*, 412-431.
 10. Kasani, H., & Mourkani, G. (2020). Identifying the weaknesses of formative assessment in the e-learning management system. *Journal of medical education*, 1-12.
 11. Keyser, A. (2021, March 17). *Why is reading important?* Retrieved from Worksheetcloud: <https://www.worksheetcloud.com/blog/why-is-reading-important/>
 12. Kloser, M., Borko, H., Wilsey, M., & Rafanelli, S. (2022). Leveraging Portfolios in Professional Development for Middle School Science Teachers' Assessment and Data-Use Practice. *Science Education*, 924-955.
 13. Machera, R. P. (2017). Teaching intervention strategies that enhance learning in higher education. *Universal journal of educational research*, 733-743.
 14. McGregor, D., & Yen, S. (2022). Using Multistage Testing to Enhance Measurement of an English Language Proficiency Test. *Language Assessment Quarterly*, 54-75.
 15. Murray, M. S. (2019). Language comprehension ability: One of the two essential components of reading comprehension. *Literacy research and practice*, 1-10.
 16. Nilsson, R. (2021). Effective interventions to support struggling readers in upper elementary grades. *Masters of arts in education action research papers*, 1-37.
 17. Piiranen-Marsh, A., & Lilja, N. (2022). Learning Grammar for Social Action: Implications for Research and Language Teaching. *Modern Language Journal*, 141-150.
 18. Primor, L., & Katzir, T. (2018). Measuring multiple text integration: A review. *Frontiers in Psychology*, 1-16.
 19. Sense, F., Van Der Velde, M., & Van Rijn, H. (2021). Predicting

- university students' exam performance using a Model-Based Adaptive Fact-Learning System. *Journal of Learning Analytics*, 155-169.
20. Terada, Y. (2019, August 7). *Proactive classroom management skills*. Retrieved from Edutopia: <https://www.edutopia.org/article/8-proactive-classroom-management-tips/>
21. Walck-Shannon, E., Rowell, S., & Regina, F. (2021). To what extent do study habits relate to performance? *CBE - Life Sciences Education*, 1-10.

My Backyard is a Roller Coaster: Lived Experiences of Primigravida During Covid-19 Pandemic

¹LOVELY JOY B. ABELLA, ²CHARLIEMANE A. BULLALAYAO, ³GLENN A. GUIRA, ⁴WILJOHN M. DELA CRUZ, and ⁵ELSIE C. PILAR

1Nurse II, Mariano Marcos Memorial Hospital and Medical Center

2Dean, College of Nursing, Northwestern University

3Master Teacher II, DepEd-Ilocos Sur Division

4Professor, Collage of Allied Health Sciences, Northwestern University

5Professor, Vedaosto J. Samonte School of Graduate Studies

ABSTRACT

Introduction: The protection of the well-being of mothers, infants, and children is a pivotal public health concern across the globe. Understanding the challenges experienced by the primigravida mothers and their mechanisms to overcome such adversities is an important topic that need to be explored.

Methods: The study employed phenomenology qualitative research design. The subjects were chosen through purposive sampling based on the following inclusion criteria: primigravida mothers in their first, second, or third trimester of pregnancy, from 20 to 30 years of age and from the Province of Ilocos Norte. The researcher constructed a semi-structured interview guide to collect pieces of information needed for this research undertaking. The entire interview was recorded and transcribed verbatim, with the transcriptions double-checked for correctness. The Thematic Analysis with the integration of the Colaizzi's seven-step process was utilized to analyze the data.

Results: Five major themes emerged from the narrations of the participants, and these are as follows: Disruption of the Tranquility of the Pregnant Life, New Challenges Caused by the Pandemic, Resilience in Managing the Crisis, and Supportive Network of Family and Friends, and Adaptation and Coping with New Health Conditions.

Conclusions: The study revealed that the COVID-19 epidemic has disrupted pregnant women's lifestyle and presented additional obstacles. Despite these challenges, the participants managed the crisis by relying on their family and friends to adjust to changing health conditions. These findings emphasize the necessity of providing pregnant women with credible information and a supportive network during the pandemic to help them manage and overcome their concerns.

Keywords: Primigravida Mothers, COVID-19 Pandemic, Phenomenology, Thematic Analysis, Experiences

INTRODUCTION

Protecting the well-being of mothers, infants, and children is a pivotal public health goal across the globe. Their state of life sketches the health of the next generation and can help predict future public health challenges for families, communities, and the health care system.

Nevertheless, health care, social policy, and the general situation were all affected by the COVID-19 pandemic, which has the potential to have an immediate effect on women's and babies' reproductive and perinatal well-being. Kotlar et al. (2021) figured out that there are both immediate and long-term implications of COVID-19 on maternal health.

Antenatal care is fundamentally the initial step toward ensuring the survival of the mother and her newborn. However, the prenatal period is similarly crucial that is often accompanied by mental distress associated with pregnancy itself. Besides the fear resulting from pregnancy, there are other several risk factors associated with high anxiety prevalence during pregnancy. Contextually, one of these factors that can affect the mental health of pregnant women is uncertainty related to catastrophic events or natural disasters like the global health crisis caused by the COVID-19 pandemic.

COVID-19 is an infectious disease caused by a new strain of coronavirus that initially began in Wuhan, China. The pandemic is an example of a natural disaster with so much global health burden (WHO, 2020). From a global perspective, the evolution of this virus resulted in some health protocols or policies such as strict social distancing, lockdowns, and the wearing of safety gears such as face masks and face shields. These protocols and

policies also resulted in more restricted access to goods including access to healthcare services. On March 24, 2020, about 1.3 billion people in India were placed on a lockdown. As a result, some higher-risk groups were required to cocoon which resulted in increased social isolation. The abrupt situation increased levels of anxiety and depression among pregnant women (Ryan et al., 2020).

Moreover, the American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine shared that after lockdowns, several countries reported amplified rates of stillbirth, which may have been associated with interruptions in prenatal care and a higher frequency of home birth (Berghella & Hughes, 2021).

Furthermore, the study of Bakouei et al. (2020) in Babol (North of Iran) divulged that pregnant women related feelings of worry, fear, obsession, boredom, nervousness, and discouragement during the pandemic that led them to have no positive pregnancy experience (Bakouei et al., 2020).

In the Philippines, the COVID-19 pandemic has also disrupted family planning and maternal services and its subsidiary impacts may significantly be an increase in the annual maternal mortality and unplanned pregnancies beginning in 2020 compared with the pre-COVID years. Pregnant women's utilization of facilities for ante-natal check-ups and delivery was declined due to service disruption, difficulty in commuting, and the fear of contracting COVID-19. Before COVID-19, the Philippines already recorded about 2,600 women dying every year due to complications from pregnancy or childbirth. Marquez (2020) estimated

that maternal mortality cases in 2020 can increase to 670 additional deaths from the 2019 level (26 % increase).

As of this writing, the Province of Ilocos Norte had already recorded 133, 817 COVID-19 cases with 2, 404 deaths. In a more specific instance, Adriano (2020) put into the record that a pregnant Overseas Filipino Worker (OFW) from the United Arab Emirates who returned to her hometown in Barangay Catangaran, Solsona, Ilocos Norte was found positive of the aforementioned disease. The said patient was referred to as IN-C4, a 30-year-old female. To dig deeper into the phenomenon, the researcher reached out to the woman and in a closed-door interview, she shared her testimonies about the adversities she needed to go through while carrying her child in her womb during the pandemic. She also added that the COVID-19 pandemic induced a considerable degree of fear, worry, and concern for her health and her baby.

Relatively, another pregnant woman was interviewed by the researcher to cull out her lived experiences during the pandemic. She shared that being pregnant became so stressful due to the applicable guidelines, regulations, and provisions set by the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF MEID), Department of Health (DOH), and Provincial Government of Ilocos Norte (PGIN). She relayed that she needed to use a face mask and face shield, get BHERT Certificate, and undergo a swab test before giving birth in a hospital.

Particularly in Ilocos Norte, a pregnant Overseas Filipino Worker from the United Arab Emirates who returned to her hometown in Solsona, was found

positive of coronavirus disease 2019 (COVID-19). The said patient was referred as INC-4, a 30-year-old female from Barangay Catangaran. The OFW was quarantined in a facility in Pampanga after arriving from the UAE. She reached Solsona on June 15 and was brought in the town's Ligtas COVID-19 facility. As the patient was preeclamptic, the Municipal Health Officer referred her to the Mariano Marcos Memorial Hospital and Medical Center (MMMHC & MC) where she underwent a caesarian operation and swab testing. Her Real-Time Reverse Transcription Polymerase Chain Reaction (RT-PCR) result revealed SARS Cov-2 Viral RNA detected (Adriano, 2020).

RESEARCH PROBLEM

This study explored the lived experiences of primigravida mothers of Ilocos Norte during the COVID-19 pandemic. It culled out the personal challenges they needed to go through and highlighted the mechanisms they employed for them to overcome such adversities. The experiences they shared were synthesized which served as the researcher's bases for developing a plan of action to address and erode the obstacles shared by the subjects.

METHODS

Research Design. This study employed qualitative research design as it explored the lived experiences of primigravida during COVID-19 pandemic. It is phenomenology in nature because it sought to describe the essence of a phenomenon by exploring it from the perspective of those who have experienced it. Its goal is to describe the meaning of these experience in terms of what was experienced and how it was experienced (Neubauer et al., 2019).

Participants. This study utilized the purposive sampling (Campbell et al., 2020). There are inclusion criteria in the selection of the subjects namely: primigravida, should be on her 1st, 2nd or 3rd trimester of pregnancy, 20 to 30 years old, and from the Province of Ilocos Norte. The researcher ended up with the data gathering after reaching the point of saturation.

Research Instrument. The data-gathering instrument was an interview guide reflecting the questions developed by the researcher. These questions were written the English and were translated in Iloko. Subjects were highly encouraged to share their experiences during COVID-19 pandemic. The elicited responses of the subjects were presented into themes and sub-themes.

At the time the researcher met the point of saturation, she stopped conducting the face-to-face interview; thus, the sample or the required number of subjects was already met.

Data Analysis. Data interpretation focused on the practicality of the findings for clinical practice or move toward speculating. After gathering and organizing necessary pieces of information, a soft copy of the files for clustering and classifying data was secured. Transcript files were copied and pasted using the Microsoft Word and this allowed for the grouping of similar data into initial themes. Data analysis was done immediately after data collection using the Thematic analysis (Nowell et.al., 2017) and the Colaizzi's seven (7) steps (Praveena, 2021).

RESULTS

First Major Theme: Disruption of the Tranquility of the Pregnant Life. The first major theme that emerged from the narrations of the ten (10) subjects was “disruption of the tranquility of the pregnant life.” The pregnant women were under intense stress for the first few weeks of pregnancy. The sub-themes that emerged from the narrations of the ten subjects were the following: (1) financial constraints during pandemic; (2) patiently waiting for their turn; (3) absence from work due to the scheduled consultation; and (4) strict compliance to health protocols such as diagnostic tests for COVID-19.

Second Major Theme: New Challenges Caused by the Pandemic. The second major theme that emerged from the subjects is “new challenges caused by the pandemic.” The following sub-themes supports the existence of the major theme: (1) the need to comply to health protocols; (2) indifference of doctors in providing care; and (3) salary deduction.

Third Major Theme: Resilience in Managing the Crisis. For this major theme, it is supported by three sub-themes: (1) holistically strong; (2) being positive despite the crisis; and (3) belief in the Lord Almighty.

Fourth Major Theme: Supportive Networks of Family and Friends. In both happy and sad times, it is crucial to be surrounded by family and friends for support and comfort. Supportive interactions have been established in studies to be a powerful protective factor against mental diseases and to assist humans in improving their mental well-being. For this major theme, it is supported by the following sub-themes: (1) financial support of parents; (2) family support; (3)

family consultation; and (4) friend consultation.

Fifth Major Theme: Adaptation and Coping with New Health Conditions.

The fifth major theme that emerged was adaptation and coping with the new health conditions. The sub-themes that support the major theme are as follows: (1) music as an antidote to boredom; (2) use of the social media to prevent boredom; (3) vegetable gardening for food sufficiency; and (4) work and pleasure.

DISCUSSION

Disruption of the Tranquility of the Pregnant Life. Relative to this, Mortazavi and Ghardazi (2021) disclosed that women who were pregnant at the time of the COVID-19 pandemic were under a lot of stress. As such, it is very essential for them to get a health system that is mobilized to alleviate their challenges during such difficult times. Pregnant women may benefit from stress reduction techniques like online training and counseling.

Subtheme 1 - Financial Constraints during Pandemic. The first sub-theme that emerged from the narrations of the subjects was financial constraints during pandemic. The subjects gave clear and understandable narrations that unmistakably showed the impact of the financial constraints experienced during the pandemic. Among these narrations are the following:

“It is difficult to be pregnant these days especially because we have no money for the pregnancy. But I am hoping that I will be able to go through this kind of pregnancy” – Subject 3

The findings imply that being pregnant during the COVID-19 pandemic can cause financial constraints among pregnant women. This is associated with the expense of the pregnancy as well as other added expenses due to many restrictions brought about by the COVID-19 pandemic.

Subtheme 2 - Patiently Waiting for their Turn.

The second sub-theme that emerged from the subjects' testimonies was patiently waiting for their turn. While it is critical to implement policies that reduce the risk of COVID-19 transmission to pregnant women and health care providers, according to Burgess et al., (2021), health care providers and policymakers must also listen to the collective voices of women during pregnancy about how COVID-19 has affected their pregnancy, birth, and infant feeding plans, as well as their perceptions.

The sub-theme is supported by the narration of the following subject:

“We need to be patient in waiting for our turn to be seen by the doctor because of the current situation” – Subject 2

The findings imply that the subjects have experienced a situation where they are not prioritized and has many restrictions. Nevertheless, they must be provided with assistance because they are having a crisis of their own being pregnant. In this regard, one major concern of pregnant individuals with COVID-19 are their prognoses and the possibility of vertical transmission and subsequent miscarriage, malformations, fetal growth restriction and/or stillbirth (Hayakawa et al., 2020).

On the contrary, although the lockdown measures have succeeded so far

in relative containment of COVID-19, the study of Muhaidat et al. (2020) suggests that there is no significant disruption to antenatal services that has occurred, and that the lockdown has not affected the wellbeing of pregnant women in several aspects.

Subtheme 3: Absence from Work due to the Scheduled Consultation. The third sub-theme that emerged from the narrations of the subjects was absence from work due to scheduled consultation. This is associated with the conclusion of Goyal, et al., (2020) which states that there is a decrease in institutional deliveries and that one-third of pregnant women had inadequate antenatal visits.

The sub-theme was supported by the narrations of one of the subjects.

“There are instances when excusing from work is difficult because of so many requirements to meet so absence from work cannot be avoided. There will be corresponding salary deductions too from leaving. But prenatal care is needed for us to ensure the health and safety of my child” – Subject 3

The findings denote that pregnant women have various concerns and issues during the COVID-19 pandemic which includes being absent to work when they visit the doctor for consultation. Being absent causes them mental stress since this is also tantamount to salary deduction. For pregnant women during the pandemic, there is a need to help ensure that they experience a comfortable pregnancy and delivery even if this means sacrificing one’s attendance to work.

Subtheme 4: Diagnostic tests for COVID-19. Diagnostic testing for COVID-19 identified was the fourth sub-

theme that emerged from the subjects’ narratives. For the etiological diagnosis of SARS-CoV-2 infection, the real-time reverse transcription (RT-PCR) assay remains the molecular test of choice (Tang, et.al., 2020). The sub-theme is supported by the various narrations of the subjects. For example:

“We have to undergo COVID-19 test ma’am before we can enter the hospital for the consultation” – Subject 8

According to Orisaka et al., (2020), in low-prevalence areas of COVID-19, universal screening of pregnant women may not be essential and should not be mandatory. Similarly, selective testing of pregnant women at high risk, such as those who have any symptoms, a history of close contact with someone who has COVID-19, recent travel/arrival from a high-prevalence area, and those who are concerned about the possibility of having COVID-19, might be reasonable. It is also important to be ready to conduct universal screening of pregnant women at any moment if the local prevalence of SARS-CoV-2 infection rises.

Second Major Theme: New Challenges Caused by the Pandemic.
Subtheme 1 - The Need to Comply to Health Protocols. The first sub-theme that supports the major theme is the need to comply to health protocols. Since the novel coronavirus (2019-nCoV) is highly contagious, and the main route of transmission is believed to be respiratory droplets, pregnant women must be well-protected by strictly following health protocols. Scientifically speaking, the virus can stay active for several hours to days on multiple surfaces under artificial conditions and touching the face or the mucosal surfaces of the body with contaminated hands could probably lead to infection

(Dzinamarira et al., 2021). While the highest risk of transmission via droplets is within 3 feet (91.44 cm) of the source, they can contaminate up to 6 feet (Kord et al., 2020).

This sub-theme is supported by narrations of the following subjects. For example:

“These times are very difficult for us because of many health protocols to follow. We need to use face mask and face shields before we enter in hospitals or wherever we go.” – Subject 2

The abovementioned declarations from the subjects tell a tale of trials on how they were able to battle against the pandemic during their pregnancy. They have specified challenges that contributed to their mental distress. It can be sensed from their testimonies that following health protocols became an unfriendly experience for them during the said state of their lives.

Subtheme 2: Indifference of Doctors in Providing Care. The second sub-theme that supports the major theme is the indifference of the doctors in providing care. The sub-theme is supported by the narrations of the subjects. For example:

“We waited for long hours for the doctor to see us. They said that they have still a lot of patients.” – Subject 7

The findings imply that pregnant women during the COVID-19 pandemic were not provided safe and quality care. This is contrary to the findings of Tuncalp et al., (2015) which advocates that in order to end preventable maternal and newborn morbidity and mortality, every pregnant woman and newborn need skilled care at

birth with evidence-based practices delivered in a humane, supportive environment. Good quality of care requires appropriate use of effective clinical and non-clinical interventions, strengthened health infrastructure, and optimum skills and attitude of health providers, resulting in improved health outcomes and positive experience of women and providers. Moreover, quality of care is considered a key component of the right to health, and the route to equity and dignity for women and children.

Subtheme 3: Salary deduction. The third sub-theme that supports the major theme is salary deduction. This is supported by the narrations of the following subjects:

“My salary will be deducted when we absent ourselves from work. But it is needed for us to attend prenatal consultation so that my baby will remain healthy” – Subject 3

Most industries were affected by the COVID-19 pandemic, including entertainment, hospitality, sports, travel, and others. According to Rubeena and Naz (2020), most people endure stress-related consequences because of unemployment, which has been degrading people's mental health. Due to the COVID-19 pandemic, there is financial deprivation all throughout the world, which raises the unemployment rate.

Third Major Theme: Resilience in Managing the Crisis

Subtheme 1: Holistically strong. The first theme that emerged from the narrations of the subjects was being holistically strong. From the narrations of the subjects, the evidence is clear that pregnant women during the pandemic expresses their views that there is a need to

be holistically strong. The following testimonies prove this claim:

“I need to be strong emotionally, physically, and mentally at these times.” –

Subject 6

The findings imply that during the health crisis, pregnant women should demonstrate a need to be holistically strong. According to Naurin et al., (2020), pregnant women's concerns about their own health, as well as the health of their spouse and child, increased during the early stages of the epidemic. Because of the COVID-19 pandemic, there is a higher need for improved awareness of the health problems of pregnant women and their partners. Anxiety has been linked to a poor pregnancy outcome and may have long-term implications. One of the recommendations of the study was for healthcare systems to organize follow-up visits with these families ahead of time.

Subtheme 2: Being positive despite the crisis. The second theme that emerged from the narrations of the subjects was being positive despite the crisis. This commendable perception of pregnant women in overcoming the adversities brought by the pandemic during their pregnancy can be sensed from the following statements:

“What I do is to stay optimistic, I always remember to stay positive even if there is a pandemic, and find time to relax, watch TV and find productive work and still continue to be positive.” – Subject 7

The narrations of the subjects imply that pregnant women should be optimistic even at times of crisis since mental health is as important as physical health. Their

testimonies prove that a positive mind is a necessity to overcome the burden of the health crisis.

Subtheme 3: Belief in Lord Almighty. The third sub-theme that emerged from the narrations of the subjects was belief in the Lord Almighty. This sub-theme is supported by the following statements from the subjects:

“There are so many ways to cope with this situation. But the most important thing to do is to pray that this will end soon. We believe that God will always be there for us.”– Subject 9

The findings imply that the pregnant women are humble enough to offer their feelings to a Supreme Being, the Lord Almighty. According to a study conducted by Simão et., al. 2016, prayer was considered a positive factor in seven studies, and several positive effects of prayer on health were identified: reducing the anxiety of mothers of children with cancer; reducing the level of concern of the subjects who believe in a solution to their problem; and providing for the improved physical functioning of patients who believe in prayer. Prayer is a non-pharmacological intervention and resource and should be included in the nursing holistic care aimed at patients' well-being.

Fourth Major Theme: Supportive Networks of Family and Friends

Subtheme 1: Financial support of parents and family. The first sub-theme that emerged from the narrations of the subjects is the financial support of their parents.

This sub-theme is supported by the narrations of the following subjects:

“Money is not a problem because our parents continue to extend help to us.”— Subject 8

This finding implies that parents continue to provide financial support to their children because they are waiting for their grandchild to be born and the thought of their birth is a form of joy and happiness to them. Likewise, it implies family support whether financially or emotionally in which it is very crucial in this time of pandemic.

Subtheme 2: Family support. The second sub- theme that emerged from the narrations of the subjects is the family support. Family support plays an important part on pregnant women’s mental health during the COVID-19 pandemic. Better family support can help improve the mental health of pregnant women. (Wang et.al., 2021)

This sub-theme is supported by the narrations of the following subjects:

“Our situation is very hard, but we need to be strong. We can’t do anything but to adapt to the present situation. What is important is that there are those persons who supports me and my pregnancy. My family and friends are very supportive of my pregnancy that is why I am very thankful for them.”— Subject 9

The COVID-19 pandemic seriously threatens people’s physical health and can trigger various psychological crises. COVID-19 was associated with increased psychological distress not only in the general population, but also in clinical samples. Importantly, women are more vulnerable to psychological distress, when experiencing disasters or traumatic events, compared to men. (Wang et., al 2021).

Subtheme 3: Family consultation.

The third sub-theme that emerged from the narrations of the subjects is the involvement of their family. The sub-theme is supported by the following statements:

“With these things that are happening, I would visit my mother and my elder sister and will inquire from them so that I know what will I do.” – Subject 3

The findings imply that the subjects can still communicate and consult their family with regards to their experience of pregnancy, which became more challenging due to the COVID-19 pandemic. According to Wang et al., 2021, women who have supportive networks of friends and family may experience less stress and have better mental health conditions. Conversely, poor family relationships and social support might be associated with depressive symptoms.

Subtheme 4: Friend consultation.

The fourth sub-theme that emerged from the narrations of the subjects is the presence of their friends whom they could reach out. The sub-theme is supported by the narrations of the subjects:

“At times, I will visit my friend who gave birth last year for me to know what to do especially at this time of the pandemic.”— Subject 1

The finding implies that the subjects have friends whom they could consult and talk to during this pandemic while being pregnant. Technically speaking, it is important for pregnant women to have people around them who are willing to listen to their stories of trials and triumphs.

Eventually, this can help a pregnant woman in overcoming the test of time during the pandemic while carrying a baby in her womb.

Fifth Major Theme: Adaptation and Coping with New Health Conditions

According to Kim et., al. (2022), the COVID-19 pandemic continues to pose an unprecedented challenge for the world as people strive to cope with this significant threat to their well-being. COVID-19, due to its particularly contagious nature and mortality rate, has induced feelings of fear and insecurity among the population.

Subtheme 1: Music as an antidote to boredom. The first sub-theme that emerged from the narrations of the subjects is the use of music as an antidote to boredom while being pregnant during the COVID-19 pandemic. According to Sirak (2017), music is a tool used to calm babies and can be considered prenatally for bonding and relaxation.

The sub-theme is supported by the following statements of the subjects:

“I listen to music, because I am quite good in singing, I can also play the guitar ma’am to reduce my stress. I can also compose songs because it is another source of my livelihood” – Subject 8

The findings point out that despite the challenge of being pregnant during the COVID-19 pandemic, the subjects use the power of music to reduce or prevent their boredom and find ways to relax from a very difficult moment. The study of Carolan et al. (2017) with pregnant women who listened to music prior to amniocentesis showed that music reduced both state of anxiety and cortisol levels.

Subtheme 2: Use of the social media to prevent boredom. The second theme that emerged from the narrations of the subjects was their engagement on the use of social media to prevent boredom. This can be reflected from the following affirmations:

“The internet signal is good ma’am, so I would chat or TikTok, and I would feel good ma’am” – Subject 8

These narrations imply that pregnant women use various social media platforms for entertainment purposes to prevent boredom. Social media play an important part in communication with those far away, allowing people who are quarantined or under lockdowns to update their loved ones about their situation and reassure them that they are well.

Subtheme 3: Vegetable gardening for food sufficiency. The third theme that emerged from the narrations of the subjects is that they manage their backyard by planting vegetables for their needs for food. According to Ferdous and Datta (2016), vegetable gardening increases food security and to reduce poverty and malnutrition.

The sub-theme is supported by the narrations of the following subjects:

“I plant and propagate crops in our yard ma’am, so we have something to get from for our food” – Subject 5

Corley, et al. (2021) concluded that access to green space, such as gardens, parks, forests, and fields, is associated with a range of health benefits. Likewise, the exposure to green spaces and with nature can reduce stress, improve mood, increase life satisfaction, and prevent risk of mental health problems. Additional benefits of

spending time in natural environments include physical exercise and better physical health, improved sleep quality, and social interaction.

Subtheme 4: Work and pleasure.

The fourth theme that emerged from the narrations of the subjects was that the subjects continue to work and do pleasure. According to Vyas and Butakhieo (2021), working and having pleasure at home could also be effective. Working remotely at home has been adopted by governments and organizations to contain the spread of the virus.

The sub-theme is supported by the following testimonies of the subjects:

“..I watch TV, I plant, go to the fields, or do any other works ma’am, so that I will not be stressed and will not keep thinking of my situation being pregnant”— Subject 10

The findings imply that pregnant women can still be productive despite the pandemic that causes lockdowns and quarantines among its citizens. Likewise, the findings also imply that pregnant women during the pandemic can focus on other areas of work and activity where they are not bored from experiencing lockdowns and being quarantines among its citizens.

CONCLUSION

It is the universal role of the nurse to provide nursing care to all clients regardless of the condition, even during a COVID-19 pandemic, where there is a threat of the transmission of the virus. It is difficult but rewarding to provide nursing care to pregnant women during this health crisis. It is concluded that pregnant women experienced adversities pertaining to their daily activities, prenatal care, and financial

constraints due to the expenses of the pregnancy and delivery. Subjects have varied experiences summarized in terms of the following major themes: Disruption of the Tranquility of the Pregnant Life, New Challenges Caused by the Pandemic, and Supportive Network of Family and Friends. On the other hand, the subjects differ in their experiences on two major themes: Adaptation and Coping with New Health Conditions, and Resilience in Managing the Crisis.

RECOMMENDATIONS

Based on the conclusions drawn, the following recommendations are offered: (1) The developed action plan for primigravida mothers during the COVID-19 pandemic can be presented to the PGIN for possible adaptation, (2) The Department of Nursing and the Master of Arts in Nursing can consider initiating extension programs regarding Maternal and Child Care amidst the COVID-19 Pandemic, (3) Specialty organizations such as Maternal and Child Nurses Association of the Philippines (MCNAP) may support nurses on the implementation of such program for Maternal and Child Care, and (4) the proposed Action Plan may be evaluated after a year to determine its extent of implementation and impact.

References

1. Adriano, Leilanie (2020). Pregnant OFW is Ilocos Norte’s 4th Covid-19 Case. <https://www.pna.gov.ph/articles/1106370>
2. Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., Pakpour, A. H. (2020). The fear of COVID-19 Scale: Development

- and Initial Validation. *International Journal of Mental Health and Addiction*, 1–9. <https://doi.org/10.1007/s11469-020-00270-8>
3. Berman, A., Snyder, S., & Frandsen, G. (2016). *Kozier & Erb's Fundamentals of Nursing: Concepts, Process, and Practice*. 10th Edition.
 4. Burgess, A., Breman, R., Bradley, D., & Dada, S. (2021). Pregnant Women's Reports of the Impact of COVID-19 on Pregnancy, Prenatal Care, and Infant Feeding Plans. *American journal of maternal/child nursing*, 21-29.
 5. Campbell, S., Greenwood, M., & Prior, S. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, 652-661.
 6. Carolan, M. B., Gamble, M., Turner, K., & Mascarenas, O. (2017). The limerick lullaby project: An intervention to relieve prenatal stress. *Midwifery*, 173-180.
 7. Chaib, F. (2019, September 19). *More women and children survive today than ever before*. World Health Organization: <https://www.who.int/news/item/19-09-2019-more-women-and-children-survive-today-than-ever-before-un-report>
 8. Coelho, C. M., Suttiwan, P., Arato, N., & Zsido, A. N. (2020). On the nature of fear and anxiety triggered by COVID-19. *Frontiers in Psychology*, 1-12.
 9. Cohen, P. N. (2021). Disrupted family plans and exacerbated inequalities associated with COVID-19 pandemic. *JAMA Network Open*, 1-12.
 10. Corley, J., Okely, J., Taylor, A., Page, D., Welstead, M., Skarabela, B., . . . Russ, T. (2021). Home garden use during COVID-19: Associations with physical and mental wellbeing in older adults. *Journal of environmental psychology*, 1-8.
 11. Cunningham, S., & Craig, D. (2019). *Social media entertainment*. New York University Press.
 12. Diekmann, L., Gray, L., & Baker, G. (2018). Growing 'good food': urban gardens, culturally acceptable produce and food security. *Cambridge university press*, 169-181.
 13. Dzinamarira, T., Mhango, M., Ngara, B., Chitungo, I., Makanda, P., Atwine, J., . . . Musuka, G. (2021). Risk factors for COVID-19 among healthcare workers. A protocol for a systematic review and meta-analysis. *PLOS One*, 1-16.
 14. Ehsan, S., & Jahan, F. (2021). Analysing the impact of COVID-19 on the mothers of Bangladesh: hearing the unheard. *Gesundh Wiss*, 1-14.
 15. Emanoil, A., Loi, E. S., Feki, A., & Ali, N. (2021). Focusing treatment on pregnant women with COVID disease. *Frontiers of Global Women's Health*, 1-12.
 16. Ferdous, Z., & Datta, A. (2016). Development of home garden model for year round production and consumption for improving resource-poor household food security in Bangladesh. *Journal of life sciences*, 103-110.
 17. Goyal, M., Singh, P., Singh, K., Shekhar, S., Agrawal, N., & Misra, S. (2020). The effect of the COVID-19 pandemic on maternal health due to delay in seeking health care:

- Experience from a tertiary center. *International journal of gynecology and obstetrics*, 231-235.
18. Grumi, S., Provenzi, L., Accorsi, P., Biasucci, G., Cavallini, A., & Decembrino, L. (2021). Depression and Anxiety in Mothers Who Were Pregnant During the COVID-19 Outbreak in Northern Italy: The Role of Pandemic-Related Emotional Stress and Perceived Social Support. *Frontiers in Psychiatry*, 1-14.
 19. Hayakawa, S., Aizawa, S., & Mor, G. (2020). Covid-19 pandemic and pregnancy. *The journal of obstetrics and gynecology*, 1958-1966.
 20. Jesus, J. V., Rodriguez, L., & Surita, F. G. (2020). The experience of women infected by the COVID-19 during pregnancy in Brazil: a qualitative study protocol. *Reproductive Health*, 1-12.
 21. Kent, J. (2020). COVID-19 data shows how social distancing impacts virus spread. *Health IT Analytics*.
 22. Kim, M., & Lee, S. (2018). Socioeconomic status can affect pregnancy outcomes and complications, even with a universal healthcare system. *International journal for equity in health*, 1-8.
 23. Kludacz-Allesandri, M., Walzak, R., Hawrysz, L., & Korneta, P. (2021). The Quality of Medical Care in the Conditions of the COVID-19 pandemic with particular emphasis on the access of primary health care and the effectiveness of treatment in Poland. *Journal of Clinical Medicine*, 1-22.
 24. Kord, A., Rabiee, B., Wang, S., Rostami, S., Gaba, R., & Xie, K. (2020). A Concise Review and Required Precautions for COVID-19 Outbreak in Diagnostic and Interventional Radiology. *Radiology research and review*, 1-7.
 25. Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120-124.
 26. Kotlar, B., & Gerson, E. (2021). The impact of the COVID-19 pandemic on maternal and perinatal health: a scoping review. *Reproductive health*, 1-3.
 27. Kotlar, B., & Gerson, E. (2021). The impact of the COVID-19 pandemic on maternal and perinatal health: a scoping review. *BMC Reproductive Health*, 1-12.
 28. Kotlar, B., Gerson, E., Petrillo, S., Langer, A., & Tiemeier, H. (2021). The impact of the COVID-19 pandemic on maternal and perinatal health: a scoping review. *Reproductive Health*, 1-14.
 29. Lavee, E., & Itzchakov, G. (2021). Good listening: A key element in establishing quality in qualitative research. *Qualitative Research*, 14687941211039402.
 30. Marquez, M. N., Laguna, E., Kabamalan, M. M., & Cruz, G. T. (2020). *Estimating the potential impact of the COVID-19 pandemic on key sexual and reproductive health outcomes in the Philippines*. Quezon City: University of the Philippines Population Institute.
 31. Meaney, S., & Leitao, S. (2021). The impact of COVID-19 on pregnant women's experiences and perceptions of antenatal maternity care, social support, and stress-

- reduction strategies. *Women and Birth*, 1-12.
32. Milne, S., Corbett, G., Hehir, M., & Lindow, S. (2020). Effects of isolation on mood and relationships in pregnant women during the covid-19 pandemic. *European journal of obstetrics gynecology reproductive biology*, 610-611.
33. Moon, K., Brewer, T., Hartley, S., Adams, V., & Blackman, D. (2016). A guideline to improve qualitative social science publishing in ecology and conversation journals. *Ecology and Society*, 1-20.
34. Mortazavi, F., & Ghardazi, F. (2021). The lived experiences of pregnant women during COVID-19 pandemic: a descriptive phenomenological study. *BMC Pregnancy and Childbirth*, 1-12
35. Muhaidat, N., Fram, K., Thekrallah, F., Qatawneh, A., & Al-Btoush, A. (2020). Pregnancy during COVID-19 outbreak: The Impact of lockdown in a middle-income country on antenatal healthcare and wellbeing. *International Journal of Women's Health*, 1065-1073.
36. Naurin, E., Markstedt, E., Stolle, D., Enstrom, D., Wallin, A., Andreasson, I., . . . Elden, H. (2020). Pregnant under the pressure of a pandemic: a large-scale longitudinal survey before and during the COVID-19 outbreak. *European journal of public health*, 1-9.
37. Neubauer, B.E., et al., (2019). How phenomenology can help us learn from the experiences of others. *Perspect Med Educ* **8**, 90–97. <https://doi.org/10.1007/s40037-019-0509-2>
38. Ncube, M. (2021). COVID-19 and antenatal care: An update. *European Journal of Midwifery*, 5-9.
39. Orisaka, M., Kawamura, H., & Yoshida, Y. (2020). COVID-19 testing of pregnant women in Japan. *The journal of obstetrics and gynecology research*, 464-466.
40. Pietrabissa, G., & Simpson, S. G. (2020). Psychological Consequences of Social Isolation During COVID-19 Outbreak. *Frontiers in Psychology*, 1-12.
41. Rauf, N., Zulfigar, S., Mumtaz, S., Maryam, H., Shoukat, R., Malik, A., . . . Atif, N. (2021). The Impact of the COVID-19 Pandemic on Pregnant Women with Perinatal Anxiety Symptoms in Pakistan: A qualitative study. *International Journal of Environmental Research and Public Health*, 1-14.
42. Rubeena, S., & Naz, R. (2020). Impact of COVID-19 on employee engagement in 2020 . *Journal of management research and analysis* , 137-141.
43. Ryan, Gillian A. et.al., (2020). Clinical Update on Covid-19 in pregnancy. A review article.
44. Sahin, B., & Kabakci, E. (2021). The experiences of pregnant women during the COVID-19 pandemic in Turkey: A qualitative study. *PubMed*, 162-169.
45. Salehi, L., Rahimzadeh, M., Molaei, E., Zaheri, H., & Saeieh, S. E. (2020). The relationship among fear and anxiety of COVID-19, pregnancy experience, and mental health disorder in pregnant women: A structural equation model. *Brain Behavior*, 1-12.
46. Simão, T. P., Caldeira, S., & De Carvalho, E. C. (2016). The effect of prayer on patients' health:

- systematic literature
review. *Religions*, 7(1), 11.
47. Sirak, C. (2017). Mothers' singing to fetuses: The effect of music education. *Florida state university libraries*, 1-53.
48. Spinelli, M., Lionetti, F., Pastore, M., & Fasolo, M. (2020). Parents' Stress and Children's Psychological Problems in Families Facing the COVID-19 Outbreak in Italy. *Frontiers in Psychology*, 1-12.
49. Swebube, C., Glover, V., & Stewart, L. (2017). Prenatal listening to songs composed for pregnancy and symptoms of anxiety and depression: a pilot study. *BMC complementary medicine therapies*, 1-5.
50. Tang, Y., Schmitz, J., Persing, D., & Stratton, C. (2020). Laboratory diagnosis of COVID-19: Current issues and challenges. *Journal fo clinical microbiology*, 1-9.
51. Tuncalp, O., Were, W., MacLennan, C., Oladapo, O., & Gulmezoglu, A. (2015). Quality of care for pregnant women and newborns—the WHO vision. *International journal of obstetrics and gynecology*, 1045-1049.
52. Vyas, L., & Butakhieo, N. (2021). The impact of working from home during COVID-19 on work and life domains: an exploratory study on Hong Kong. *Policy design and practice*, 59-76.
53. Wang, Y., & Yuan, Z. (2021). Role of perceived family support in psychological distress for pregnant women during the COVID-19 pandemic. *World Journal Psychology*, 365-374.
54. Wong, A., & Bhyat, R. (2021). Patient Care During the COVID-19 Pandemic: Use of Virtual Care. *Journal of Medical INternet Research*, 33-46.
55. Zullo, F., Mascio, D., & Saccone, G. (2020). Coronavirus disease 2019 antibody testing in pregnancy. *Americal journal of obstetrics and gynecology*, 1-4.

Difficulties of Grade 7 Students in General Physic I

¹LORIMEL P. GUILLERMO, ²MARINO F. BAYTEC, ³CECILIA P. ARIBUABO, ⁴FLORENCE D. GANIR, ⁵MARICON M. GUILLERMO, and ⁶GREGORIA NAJORDA

¹Teacher III, Bagbag Solsona, National High School, DepEd-Ilocos Norte Division

²Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

³Dean, College of Teacher Education, Northern Christian College

⁴Dean, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁵Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁶Vice President for Academic Affairs, Northwestern University

ABSTRACT

Introduction: The pursuit of an education has always been seen to the ends of financial security and social mobility. Productivity growth may be traced mostly to more individuals receiving higher levels of education and training.

Methods: This mixed methods study created a Strategic Intervention Material for General Physics I based on themes that teachers and students found tough to develop and/or remediate skills that students did not learn in the classroom. Two samples were studied. The first group included 40 public secondary school instructors and three scientific students from Ilocos Norte's East zone. General Physics I was surveyed by Grade 7 Science teachers and students. Validated and pilot-tested, the instrument was reliable. The mean was utilized to analyze evaluation survey findings.

Results: Physics students' poor performance has concerned all science teachers. This study found that teachers and students considered the skills taught in the lessons—Force, Motion, Waves, Sound Wave, Light Wave, and Heat Wave—may need strategic intervention. However, a survey of teachers' challenges in teaching General Physics I showed that students struggle with mathematical computations and analysis of word problems in force, acceleration, and velocity, indicating that Strategic Intervention Material is an effective way to improve performance and develop competence in General Physics I.

Conclusions: The study showed that both teachers and students want strategic intervention materials for General Physics I, especially for Force, Motion, Waves, Sound Waves, Light Waves, and Heat Waves. Teachers struggled with problem-solving and mathematical interpretation, while students needed more tools.

Keywords: Strategic Intervention Material, General Physics I topics and competencies, challenges, teacher's

INTRODUCTION

Education has been viewed as a means to economic stability and advancement. The increased productivity is due mainly to the increase in the education and training of people (Cabrera, 2012).

In the Philippine K-12 educational system, Science is one of the subjects which is getting great attention and deemed very significant most especially when students' performance in Mathematics and Science was revealed in the international test like the PISA of the OECD in 2018. The study bared that the Philippines scored 353 in Mathematics, 357 in Science, and 340 in Reading. All these results correspond below the average of participating OECD countries (PISA 2018). Another test participated in the TIMSS 2019 found that the Philippines scored significantly lower than any other country that participated in Grade 4 Math and Science assessments (Magsambol 2020). The issue of the poor performance of students needs much attention and importance.

The teachers' goal is to help students study and enjoy Physics so that they are better prepared to face problems in the real world. The initiative of teachers in creating and implementing instructional resources (Dy, 2011) bridges these gaps, allowing students to attain their educational goals: learning the ideas and mastering the skills. Teaching Science will be more productive if there are enough, well-designed (Salviejo e. a., 2014) instructional and intervention resources accessible for a wide range of pupils, considering their learning styles, personalities, and other factors, kinds, and stress-coping techniques (Dacumos, 2015).

As a result, Science teachers must have a comprehensive awareness of their students to provide individualized educational materials that target students' particular requirements and help them achieve better scientific understanding. DepEd acknowledged that most secondary schools had already put in place remediation programs to address learning deficits, as indicated in DepEd Memorandum No. 39, series of 2012, the policy guidelines for addressing learning gaps and establishing reading and writing programs in secondary schools. The order further advised the schools to frame their programs and interventions within the guidelines prescribed. The utilization of Strategic Intervention Materials aims to improve the least mastered skills of the students in a particular subject area. As a result, the researcher focused on ways to help Grade 7 students do better in the field. This purpose compelled the researcher to investigate the topics in their third-quarter lessons that appeared to be the source of their poor performance in Ilocos Norte public schools, notably in the East Zone.

It is worthy to note that DepEd has released issuances on flexible learning and materials, notably DepEd Order No. (DO) 21, s. 2019, or the Policy Guidelines on the K to 12 Basic Education Program, in accordance with its legal mission. It establishes Flexible Learning Options (FLOS), which comprises different delivery modes and learning resources that are sensitive to need, context, circumstances, and learner diversity. The purpose of these policy guidelines is to provide criteria and specifications for the supply of learning resources in the BE-LCP implementation. The learning materials serve as learning toolkits for students, with processes, instructions, and other details offered to aid in the learning process, all under the supervision of responsible adults and under the guidance

and supervision of teachers. The way scientific lessons are delivered and comprehended by pupils is highlighted by this learning deficit. Rather than simply seeing what is going on, students learn information via scientific reasoning (Suomela, 2013). With these problems in mind, a paradigm change is required, concentrating on increasing learners' conceptual grasp of science as well as their skill development.

(Lim, 2014) also points out that the transition from ten to twelve years of basic education is more than a numerical exercise. The rationale of RA 10533, according to the Department of Education (DepEd), is to address the inadequate quality of basic education offered by the present curriculum, as evidenced by Filipino students' low-performance scores and the country's high unemployment rate. According to international test scores such as the Trends in International Mathematics and Science Study (TIMSS) from 2003, the Philippines is not only below the international average, but also last in Asia. This prompted the Philippine government through the collaborative efforts of members of the Steering Committee which is composed of the Department of Education (DepEd), Commission of Higher Education (CHED), Technical Education and Skills Development Authority (TESDA), and other stakeholders to pursue the implementation of the K to 12 curriculum, which entails the institutionalization of kindergarten, building proficiency through language and additional two years of high school in the basic education cycle.

DepEd Memorandum No.032 s. 2020 - Guidelines on the engagement of services of learning Support aides to Reinforce the implementation of the Basic Education Learning Continuity Plan in Time of COVID-19 Pandemic - provides

for the mechanisms, procedures, and standards that shall guide all DepEd Officers and schools as well as other stakeholders in the recruitment, selection, and engagement of Learning Support Aides in all public elementary and secondary schools, including senior high schools in SY 2020-2021. As educators, high-quality education entails the provision of a solid foundation of knowledge for students to achieve their goals, (Aranda, 2019). According to Retnawati, et al., (2018), education also cultivates the abilities and skills of our children, who will one day lead their nations and the world. It is the responsibility of educators to assist children in developing fundamental abilities in essential disciplines such as language, mathematics, science, history, and the arts. Problems eventually occur during the learning and teaching process. Intellectual aptitude, students' attitudes toward studies, and the teacher's teaching tactics are only a few of the aspects to examine. In situations like these, intervention materials are needed to help fix the problem in the learning and teaching process, Gabucan & Sanchez (2021).

According to the study by Herrera (2016), learning gaps occur in the learning and teaching process as a result of students' differing intellectual abilities and attitudes toward their studies. SIM's goal is to inspire students to study and apply concepts and skills in real-world scenarios. SIM learning strategies are teaching tools that help students grasp information and solve issues effectively and efficiently. Material Learning Strategies for Strategic Intervention provide the essential breadth and depth to give a well-designed scope and sequence of strategy instruction.

Physics plays a crucial part in every element of human life. As a result, as fundamental Science, Physics has facts, concepts, principles, laws, postulates, and theories that have a scientific basis (Fischer, 2014). Various skills in studying Physics demonstrate that it is a complicated discipline, necessitating the utilization of student abilities in order for it to be completely and accurately understood. The fundamental issue with learning basic Physics is that it emphasizes memorization over problem-solving abilities. Students can do easy arithmetic problems, but they have difficulty with increasingly sophisticated and difficult tasks. According to scientific studies, Fundamental Physics is a tough topic to master since it requires complicated mathematical abilities, a high level of metacognition, and a high incidence of misunderstandings. The negative assumption is that Physics is a difficult topic, which might discourage students' interest and enthusiasm (Saputri, 2021).

In another study conducted by Suarez-Casinillo (2020) during the school year 2017– 2018 to assess the impact of Strategic Intervention Material (SIM) on student academic performance at Doos Sur Elementary School in Hindang, Leyte, Philippines. Based on their post- test findings, the experimental group performed better than the control group. As a result, it is determined that SIM is an excellent teaching approach for improving students' accomplishments in Science's least learned areas.

RESEARCH PROBLEM

The study aimed to determine the difficulties of Grade 7 learners in General Physics I. Specifically, it answered the following questions: (1) What are the difficult topics in General Physics I as

perceived by teachers and learners?; (2) What are the challenges in teaching General Physics I as perceived by teachers?; and (3) What intervention material can be recommended to enhance the competencies of Grade 7 learners in General Physics I?

METHODS

Research Design. The study utilized the mixed method of quantitative and qualitative methods. Quantitative methodology is the dominant research framework in the Social Sciences. It refers to a set of strategies, techniques, and assumptions used to study psychological, social, and economic processes through the exploration of numeric patterns. It includes methodologies such as questionnaires, structured observations, or experiments. It determined the difficult topics in General Physics I as perceived by the teachers and learners of public secondary schools in Ilocos Norte in the East Zone. Qualitative research involves the collection and analysis of narratives and/or open-ended observations through methodologies such as interviews, focus groups, or ethnographies. It determined the challenges encountered by teachers in teaching General Physics I.

Participants. There were two groups of samples in the study. The first group was composed of 40 public secondary school teachers and three (3) students of each Science teacher who were randomly selected regardless of their weighted average in the East zone of the Schools Division of Ilocos Norte. Raosoft calculator was used to ensure the correct proportion of the respondents and random sampling in selecting the respondents. The table below presented the distribution of respondents in the study.

Research Instrument. A survey questionnaire was given to Grade 7 Science teachers and students to determine the topics in General Physics I that were difficult, and the challenges encountered by teachers in teaching General Physics I. The survey questionnaire for the teachers was divided into two parts: the difficult topics in General Physics I as perceived by teachers, and open-ended questions about the challenges encountered by the teachers in teaching General Physics I. The survey was adopted from the DepEd K to 12 Most Essential Learning Competencies and Asuncion, A. J., et al. (2017). Science Grade 7: Learner’s Material.

Data Collection. The steps involved in the gathering of essential data guided the study. First, the researcher asked permission from the Schools Division Superintendent of the Schools Division of Ilocos Norte. Second, the researcher asked permission from authorities concerned about the participation of the secondary Grade 7 Science teachers and students who were the target respondents in the different secondary schools of Ilocos Norte particularly East Zone. Third, the researcher conducted the survey on the

difficult topics in General Physics I as perceived by teachers and students in East Zone. The researcher used Google Forms to collect the respondents' responses. An unstructured interview was utilized to gather the challenges of teachers in teaching General Physics I which constituted the qualitative data. Finally, the results were tabulated, analyzed, and interpreted. The development of the strategic intervention material was based on how students and teachers saw the challenging concepts in General Physics I, such as force, motion, waves, light waves, sound waves, and heat waves, along with the accompanying competencies.

Data Analysis. The data gathered through the assessment survey was analyzed by applying the mean. Only the topics in General Physics that were perceived by the teachers as difficult for the students to learn and the topics perceived by the students as being difficult to understand, with the mean score ranging from 2 to 3 with the descriptive interpretation as “slightly needs strategic intervention material to need strategic intervention material”, were considered in the preparation of the strategic intervention material.

RESULTS

Difficult Topics in General Physics I as Perceived by the Teachers and Learners

Table 1 shows the summary of difficult topics in General Physics I as perceived by teachers and learners.

Table 1
Summary of Difficult Topics in General Physics I as Perceived by Teachers and Learners

Topics	Teachers		Learners	
	Composite Mean	Descriptive Interpretation	Mean	Composite Interpretation
1. Force	1.75	SNSIM	2.29	SNSIM
2. Motion	1.88	SNSIM	2.40	SNSIM
3. Waves	1.64	SNSIM	2.32	SNSIM

4. Sound Waves	1.92	SNSIM	2.39	SNSIM
5. Light Waves	1.91	SNSIM	2.36	SNSIM
6. Heat Waves	1.88	SNSIM	2.35	SNSIM
Overall Mean	1.83	SNSIM	2.35	SNSIM

Ranges of Means	Descriptive Interpretation
Legend: 2.50 – 3.00	Needs Strategic Intervention Material (NSIM)
1.50 – 2.49	Slightly Needs Strategic Intervention Material (SNSIM)
1.00 – 1.49	No Need for Strategic Intervention Material (NNSIM)

The data in tables 1 reflects the consolidated responses of 140 learners on their perception of the difficult topics to learn in General Physics 1. The computed overall weighted mean of 2.35 with a descriptive interpretation as Slightly Needs Strategic Intervention Materials. It can be gleaned that the highest mean obtained is 2.40 under the topic Motion; 2.39, for Sound Waves; 2.36, for Light Waves; 2.35,

for Heat Waves with the descriptive interpretation of Slightly Needs Strategic Intervention Material. Meanwhile, the topic on Force and Waves earned the lowest mean: 2.29 and 2.32 respectively with descriptive interpretation of Slightly Needs Strategic Intervention Material. This implies that the learners need to have Strategic Intervention Material under the topics with the lowest mean.

Reactions of the Teachers towards the Challenges Encountered in Teaching General Physics I

This section of the investigation presents the reactions of the teachers towards the challenges in teaching General Physics I.

As shown in table, the responses of teachers towards the challenges they encountered in teaching General Physics I were as follows: students were hard up in

word problems, teachers need to reteach the lesson, and teachers must be knowledgeable about the content and pedagogy in teaching Science and need to be aware of the appropriate assessment and evaluation of learners, teachers must have instructional material and learners' lack concentration in their studies.

Table 2
Challenges Encountered by Teachers in Teaching General Physics I

Sample Quotation from the Narratives	Category	Theme
Theme 1: Difficulty in Problem-Solving, Mathematical Interpretations, and Computations in Force, Velocity, and Acceleration		
The problems that I encountered in teaching general physics are the following: First, most of my students are hard up to follow our Physics lessons that have mathematical calculations most especially in force, velocity and acceleration. They understand the concepts but when it comes to the problem-solving parts, they are hard up and only a few can understand.	Word problem	Difficulty in problem-solving, mathematical interpretations, and computations in force, velocity and acceleration.
Theme 2: Reteaching Strategies		

Discuss again the concepts in Physics that have mathematical parts that my students are hard to understand specially in Force, velocity and acceleration. Giving more and more examples and letting the students solve the problems on the board. Giving them more worksheets and exercises.	Recall the lesson to promote memory enhancement	Reteaching strategies
Theme 3: Learning and innovation which includes the 4Cs (critical thinking and problem-solving, communication, collaboration, and creativity)		
No, I don't find it difficult to teach topics in general physics, notably force, velocity, and acceleration, since there's no reason to think of this as a difficult subject if you enjoy teaching it.	Content and pedagogy in teaching science	Learning and innovation which includes the 4Cs. (critical thinking and problem solving, communication, collaboration, and creativity)
Theme 4: Assessment Strategies		
No, I don't have difficulties in constructing test items. Because I have gained knowledge and skills in test construction during seminars, webinars, INSET, and LAC sessions. With this training, I was already equipped with the skills and I want more to have seminars and other professional growth training in order to develop my skills in test construction.	Assessment and evaluation of learners	Assessment strategies
Theme 5: Teachers must be resourceful and IT-equipped.		
Yes. I have a lot of adequate reference materials. I don't stick to only one reference. I used different printed materials and most especially I always get in touch with technology.	Instructional materials	Teachers must be resourceful and IT-equipped.
Theme 6: Teachers must have an Effective Motivation		
Some are bored and unmotivated to learn this subject especially when they see the formula of force, acceleration and velocity. Maybe because it is a sophisticated and complex subject.	Students lack concentration in their studies	Teachers must have an effective motivation

DISCUSSION

The teacher respondents classified the difficult topics in General Physics I as almost in need of strategic intervention material, describing the necessity for the teachers to provide intervention material to help the students grasp the concepts. It is derived from the result that students need an intervention material as the majority belongs to slightly needs strategic intervention material. Therefore, learners need to work more on topics such as Force, Motion, Waves, Sound Wave, Light Waves, and Heat Waves. The teacher respondents' reactions were as follows:

“most learners struggle so much with evaluating and comprehending word problems that they have trouble applying basic math concepts like addition, subtracting, multiplying, and dividing; the need for reteaching tactics for teachers to assist students to grasp the lesson by generating PowerPoint presentations, online simulations, interactive games, and instructional resources. Because they have no past knowledge of a subject, our learners sometimes struggle to grasp it”. Using real-life situations that students can connect to will boost their engagement and assist their brains to develop a framework for understanding; to help students understand

the lesson and to have a unified vision for learning in a world where change is constant and learning never stops, there must be learning and innovation, which includes the 4Cs (critical thinking and problem solving, communication, collaboration, and creativity); the need for assessment strategies or diversity of evaluation procedures to foster student progress and mastery of the course; teachers must be resourceful and IT-equipped in addressing the needs of the learners and they must have an interactive motivation for the learners to be energetic in the lesson.

CONCLUSION

After a profound analysis and interpretation of the results from the assessment survey, the researcher arrived at the following conclusions:

Teachers perceived the topics on Force, Motion, Waves, Sound Waves, Light Waves, and Heat Waves as “Slightly Needs Strategic Intervention Material.” However, the teachers presented the challenges they continued to face when teaching General Physics, difficulty in problem-solving, mathematical interpretations, and computations, reteaching strategies, learning, and innovation, which include the 4cs (critical thinking and problem solving, communication, collaboration, and creativity), assessment strategies, teachers must be resourceful and it-equipped, and teachers must have effective motivation.

Likewise, the topics on Force, Motion, Waves, LightWave, Sound Wave, and Heat Wave are perceived by students as

“Slightly Needs Strategic Intervention Material”. In contrast, if students have identified different topics as such, the researcher will need to create a SIM to supplement their learning.

Strategic Intervention Materials for General Physics I can be proposed with the lessons on Force, Motion, Waves, Sound Waves, Light Waves, and Heat Waves and will be beneficial to teachers and learners and can be used as supplemental activities and, or lessons and at the same time appeal to the students.

RECOMMENDATIONS

The results were analyzed and interpreted together with the stated conclusions; the following recommendations are formulated: (1) A strategic intervention material may be developed for the enrichment and remediation of competencies that were not mastered in the classroom; (2) Teachers may use the SIM in their respective classes in General Physics I; (3) Teachers should be kept abreast with appropriate knowledge on the use of 21st-century teaching and learning resources such as Strategic Intervention Material to help a student who finds science concepts difficult to comprehend; (4) Teachers and, or researchers may test the effectiveness of the developed strategic intervention materials in actual classroom use; and (5) Teachers and, or researchers may conduct related research involving different topics and survey that involves different population to better calibrate the appropriate needs intervention of the lesson

References

1. Aranda, et al.,(2019).Integrating Strategic Intervention Materials (SIM) In Science to Low Achieving Learners. *Journal of Science Teachers and Educators* 2019, 2 (1)
2. Bunagan F. (2012)Science Intervention Material. Retrieved from<http://www.slideshare.net/felixbunagan/strategicinterventionhttp://84.22.166.132/learning-and-teaching-theory-guide/deep-and-surface-approaches-learning.html>.
3. Dacunoz, Leo Peter Narciza. Perspective of Secondary Teachers in the Utilization Of Science Strategic Intervention Material (SIM) in Increasing Learning Proficiency of Students in Science Education.
4. DepEd Order No. 21 s, 2019. Policy Guidelines on the K to 12 Basic education Program (August 22, 2019).
5. DepEd Order No. 39 s. 2012 Policy guidelines on addressing learning gaps and implementing a reading and writing program in secondary schools effective school year 2012-2013. Department of Education, Philippines. Retrieved from <https://www.deped.gov.ph/2012/05/11/do-39-2012-policy-guidelines-on-addressinglearning-gaps-and-implementing-a-reading-and-writing-ing-the-secondary-schools-effective-school-year-sy-2012-2013>
6. DepEd Order No. 32 s. 2020. Guidelines on the Engagement of Services of Learning Support Aides to Reinforce the Implementation of the Basic Research Education Learning Continuity Plan (BE-LCP) in Time of COVID- 19 pandemic.<https://www.journalajess.com/index.php/AJESS/article/view/30137>
7. Dy, L. (2011) Teaching-PhysicsThrough-Strategic-Intervention-Materials-Sim. <http://jhody.hubpages.com/hub/>
8. Fischer, A., Greiff, S., Wüstenberg, S., Fleischer, J., Buchwald, F., & Funke, J. (2014). Assessing analytic and interactive aspects of problem solving competency. *Learning and Individual Differences*, 39, 172–179.<https://doi.org/10.1016/j.lindif.2015.02.008>
9. Gabucan, & Sanchez, (2021). Strategic Intervention Material (SIM)-based Instruction in Teaching Global Warming in 9th Grade Science. *Jurnal Ilmiah Pendidikan MIPA*, March 2021, 11 (1), 15-24 DOI: <http://dx.doi.org/10.30998/formatif.v11i1.6448> p-ISSN: 2088-351X e-ISSN: 2502-5457
10. Herrera, et al., (2016).The efficacy of Strategic Intervention Material (SIM) to the Achievement of Physics of a Selected Group of Public School Students in las Nieves, Agusan del Norte. *Annal of Studies in Science and Humanities*. Vol.2, No. 2
11. Lim, C. P., Teo, Y. H., Wong, P., Khine, M. S., Chai, C. S., & Divaharan, S. (2003).Creating a conducive learning environment for the effective integration of ICT: Classroom management

- issues. Journal of Interactive Learning Research.
12. Lund Research Ltd. (2012). Ethical Issues on Research.
 13. Magsambol, B. (2020, September 22). Distance Learning. Retrieved from Rappler.com: <https://www.rappler.com/newsbreak/iq/things-to-know-deped-modular-learning>
 14. Murphy, E. (1997). Constructivism: From philosophy to practice. Retrieved October 19, 2008 <http://www.cdli.ca/~elmurphy/emurphy/cle.html>
 15. NAT Overview and 2012 Test Results. Department of Education. National Education Testing and Research Center. Retrieved from www.depedqc.ph.
 16. Parra-González, M. E., López Belmonte, J., Segura-Robles, A., & Fuentes Cabrera, A. (2020). Active and Emerging Methodologies for Ubiquitous Education: Potentials of Flipped Learning and Gamification. *Sustainability*, 12(2), 602. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su12020602>
 17. Retnawati, et al., (2018). Teachers' Difficulties and Strategies In Physics Teaching And Learning That Applying Mathematics. *Journal of Baltic Science Education*, Vol. 17, No. 1, 2018 <https://files.eric.ed.gov/fulltext/EJ1285295.pdf> Date accessed: August 18, 2021
 18. Rovai, A., & Jordan, H. (2004). Blended learning and sense of community: A Comparative analysis with traditional and fully online graduate courses. *The International Review of Research in Open and Distance Learning*, 5 (2). Retrieved April 3rd, 2013 from: <http://www.irrodl.org/index.php/irrodl/article/view/192/274>.
 19. Salamah, et al., (2021). Application of Behavioristic Learning Theory in Learning "Ta'lim Afkar". *Advances in Social Science, Education and Humanities Research*, volume 529 <http://creativecommons.org/licenses/by-nc/4.0/>
 20. Salviejo, E. I., Aranes, F., & Espinosa, A. (2014). Strategic intervention material-based instruction, learning approach and students' performance in chemistry. *International Journal of Learning, Teaching and Educational Research*, 2(1), 91-123.
 21. Saputri, et al., (2021). How do additional instructions change the answer? Study of pre-service physics teachers' misconception about buoyancy. *Journal of Physics: Conference Series* 2165 (2022) 012048 IOP Publishing doi:10.1088/1742-6596/2165/1/012048
 22. Suarez, M. G. & Casinillo, L.F. (2020). Effect Of Strategic Intervention Material (Sim) On Academic Performance: Evidence From Students Of Science VI.
 23. Suomela, L., Juuti, K., & Ahtee, M. (2013). The Importance of Engaging Pupils Actively in Demonstrations. *Primary Science*, 130, 20–22.
 24. Susilo, H., (2008), Implementasi pendekatan konstruktivistik dalam pembelajaran sains. Retrieved from <http://www.malang.ac.id>

Improvement Plan on the Utilization of Mobile Applications with Technology-Enhanced Assessment (TEA) Tool

¹EARLVIN CLIFF P. SAHAGUN, ²ELSIE C. PILAR, ³JOEL B. LOPEZ, ⁴FLORENCE D. GANIR, ⁵GERARDO C. GARCIA, and ⁶ROLLY C. RAMOS

¹Teacher III, Mandalogue Elementary School, DepEd-Division of Ilocos Norte

²Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

³Schools Division Superintendent, City Schools Division of Batac

⁴Dean, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁵Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁶Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

ABSTRACT

Introduction: Information and Communications Technology (ICT) has transformed the traditional classroom into an innovative educational resource. It has converted everybody's needs to electronic forms and recently the general paper-pen tests/exams into an electronic assessment. Hence, investigating the utilization of mobile applications with technology-enhanced assessment (TEA) tool can help teachers enhance their knowledge and skills in using technology for classroom assessment.

Methods: The researcher employed the descriptive research design and Input-Process-Output (IPO) approach in developing the TEA tool. Frequency count, percentage, and weighted mean was used to analyze and interpret the gathered data. The study involved 116 Grade 5 teachers in the East Unit of the SDO of Ilocos Norte.

Results: Study revealed that most teachers have already earned units in their master's degree, have taught for ten (10) years, and have participated in local trainings related to ICT, assessment, content, and classroom management. Among the ten (10) identified available mobile applications with TEA tool, teachers sometimes use the Kahoot It, Google Quiz, Plickers, and Quizziz and they never utilized Quizalize, Socratives, Poll Everywhere, Quizlet, Padlet, and Edmodo. As to teachers' level of proficiency in the use of mobile applications, most of them are at the Entry Level. The respondents agreed that they encountered the issues and concerns under accessibility, usability, and connectivity.

Conclusions: The improvement plan on the utilization of mobile applications with TEA Tool is found very highly valid in addressing teachers' issues and concerns. Hence, it is recommended for possible adoption to help teachers develop their skills in using ICT for classroom assessment.

Keywords: Utilization, Mobile Applications, Technology-Enhanced Assessment (TEA) Tool, Improvement Plan

INTRODUCTION

Since the advent of information technology, there have been changes in the teaching and learning process, from a conventional classroom to an invaluable educational resource. It has converted everyone's needs to electronic forms such as the use of e-book, e-learning, e-mail, e-banking, e-bay, e-game, among others. According to Trillo, et.al (2007; cited in Usta, & Ullman, 2016), the e-learning system has become a complement to traditional face-to-face classes which also drives the introduction of electronic assessment to replace the paper-pen tests/exams. E-assessment or technology-enhanced assessment uses technology in presenting assessment activity and recording responses, JISC (2006; cited in Appiah & Van, 2018).

Elmahdi, Al-Hattami, and Fwzi (2016) mentioned that mobile applications help teachers effectively and efficiently assess students' knowledge, concepts, and skills by providing user-friendly technology since teachers only need in their classroom a cell phone, or tablet in e-assessment. Similarly, McCain (2019) mentioned that mobile applications help overcome educational problems. Interactive and personalized learning are the assets that students get from mobile apps. Education-based apps provide convenience by helping students to realize more in less time.

According to My Advisor (2020), mobile apps can be students' best friend in times of need and can build harmonious relationships among teachers, learners, and parents. Based on the research of Ayres, Mechling, and Sansosti (2013), the growing number of studies investigating the utilization of technology-based interventions and mobile technologies

shows the importance of technology to support students in education. Most research studies center on determining the relationship of assessing students' cognitive skills to their academic achievement.

RESEARCH QUESTION

The study aimed to develop an improvement plan on the utilization of mobile applications with technology-enhanced assessment (TEA) tool. Specifically, it sought to answer the following questions: (1) to determine the profile of teachers; (2) to identify the available mobile applications with technology-enhanced assessment (TEA) tool; (3) to determine the utilization level of mobile applications among teachers; (4) to assess the level of proficiency of teachers in the utilization of mobile applications with technology-enhanced assessment (TEA) tool; and (5) to determine the issues and concerns of teachers in the utilization of mobile applications.

METHODOLOGY

A descriptive research design and IPO (Input, Process, and Output) Approach was utilized in this study. The researcher utilized a total enumeration which involved 116 grade 5 teachers from the different schools in the East Unit of the Schools Division of Ilocos Norte.

The researcher used two questionnaires to gather data. The first questionnaire was used to collect data and consisted of four parts: (1) respondents' profile, (2) available mobile applications with TEA tool, (3) teachers' level of proficiency in the utilization of mobile applications with the TEA tool, and (4) issues and concerns in the utilization of mobile applications with the TEA tool.

The second questionnaire was a content validation instrument in the form of a rating scale patterned from the Evaluation Sheet on School Improvement Plan (SIP) of SDO-IN. After retrieving the data,

statistical procedure followed, frequency count, percentage, and weighted mean was used to analyze and interpret the gathered data.

RESULTS AND DISCUSSION

Part 1. Profile of Teachers

Table 1. Profile of Grade 5 Teachers in the East Unit (n=116)

Variable	Frequency (f)	Percent (%)
Educational Attainment		
Bachelor's Degree holder	14	12.10
Bachelor's Degree with MA Units	100	86.20
Master's Degree	2	1.70
Years of Teaching		
0-3	14	12.10
4-6	27	23.30
7-9	21	18.10
10 and above	54	46.60
Training/Seminars		
ICT/Technical Skills		
School/District Level	60	51.70
Division Level	40	34.50
Regional Level	2	1.70
National Level	7	6.00
None	7	6.00
Assessment/ Evaluation		
School/District Level	58	50.00
Division Level	38	32.80
National Level	2	1.70
None	18	15.50
Subject/Content		
School/District Level	56	48.30
Division Level	43	37.10
Regional Level	3	2.60
National Level	2	1.70
None	12	10.30

Classroom Management		
School/District Level	74	63.80
Division Level	23	19.80
Regional Level	3	2.60
National Level	2	1.70
None	14	12.10

Table 1 presents the profile of teachers, specifically on their educational attainment, years of teaching experience, and training or seminars related to ICT or technical skill development, assessment/evaluation concepts and applications in the classroom, mastering subjects/content in the different learning areas, and classroom management.

In terms of educational attainment, Table 1 shows that 100 or 86.20% of the respondents has earned units in their master's degree, 14 or 12.10% of them are bachelor's degree holders, while two or 1.70% of the respondents are master's degree holders. On the other hand, none of the respondents have units at the doctorate level and doctorate graduate. The results imply that teachers pursue graduate studies to enhance their potentials and acquire new skills. Likewise, through continuous education, teachers can develop their communication and social skills because they meet people who have different backgrounds. Hence, they get to meet successful professionals.

Similarly, the table shows that majority of the teachers (54 or 46.60%) have been in the profession for ten (10) years or more and have gained enough knowledge and skills in the teaching profession. Twenty-seven or 23.30% of them have served for four to six years. Meanwhile, 21 or 18.10% of them have taught for seven to nine years, while 14 or 12.10% have been in the teaching service for zero to three years. The data suggest that there is a big number of beginners in the

profession; therefore, needs support in terms of training and enhancement programs.

With regards to trainings and seminars, in this study, there are four categories of training or seminars: ICT/Technical Skills, Assessment/Evaluation, Subject/Content, and Classroom Management. The table shows that half of the respondents participated in ICT-related training at the school or district level which comprises 60 or 51.70% while participation in the regional level has only two or 1.70% of them. The results imply that teachers in the province have very little participation in regional, national, and even international training or seminars. This is because the training or seminars are mostly invitational or undertaken by private organizations, and only a few are offered by DepEd for free. According to Gonong (2014), teachers seldom participate in training or seminars because of lack of time for professional learning, overlapping duties and responsibilities in school, and financial constraints. Further, the findings imply that teachers need to participate in more intensive training or seminars to cope with the educational reforms, specifically on ICT.

As to trainings or seminars related to Assessment/Evaluation, data reveals that out of the 116 respondents, 58 or 50% have undergone school or district training on assessment/evaluation. On the other hand, 38 or 32.80% have division-level training. Meanwhile, 18 or 15.50% have no training,

while only two or 1.70% have national-level training or seminars. The findings suggest that half of the total number of respondents have training or seminars related to assessment or evaluation at the school or district level only. According to Flow of Thoughts (n.d.), assessment is vital for the improvement of learning and suggests that teachers need training and support to enable them to make valuable assessment decisions, to provide quality feedback to learners, and to teach learners to receive feedback positively and use the information contained within it effectively to improve their work.

In terms of subject area or content, data show that 56 or 48.30% of the teachers have training or seminars at the school or district level. On the other hand, 43 or 37.10% have training or seminar at the division level, while there are 12 or 10.30% do not have any training related to subject area or content. Three or 2.60% of the teachers have training at the regional level, while only two or 1.70% of them have training at the national level. Kamamia, et al. (2014) stress that through the mastery of subject matter, teachers can impart the right skills of communication, collaboration, critical thinking, and creativity based on the three learning domains: cognitive, affective, and psychomotor and suggest that teachers need to master the contents of the different learning areas they taught by attending various seminars or training, which can help them achieve mastery and proficiency of the core contents of the subject.

As to classroom management, a great majority (74 or 63.80%) of the respondents have training or seminars at the school or district level. Twenty-three or 19.80% of them have division-level training, while 14 or 12.10% have no training. On the other hand, three or 2.60%

have regional training, while only two or 1.70% have national training or seminar. According to Marzano, et al. (2003), teachers play various roles in a typical classroom, but one of the most important is the role that they portray as classroom managers. To Marzano, et al. (2003), well-managed classrooms provide an environment, where teaching and learning can flourish. Marzano, et al. (2003) state that a well-managed classroom does not just appear out of nowhere, but it takes a good deal of effort to create

Among the four categories of training or seminars, teachers participate the most in training or seminars on classroom management. This implies that teachers want to equip themselves with skills and techniques that they can employ to keep students organized, orderly, focused, attentive, on task, and academically productive during a class (Great School Partnership, 2021).

Mobile Applications with Technology-Enhanced Assessment (TEA) Tool. The use of digital technology, specifically mobile applications, in education has attracted much interest in recent years. Mobile applications are a fundamental feature of mobile devices, and the volume and complexity of apps continue to increase unabated. These features include being interactive, motivational, autonomous. Likewise, mobile applications provide immediate feedback, review, retention, engagement, and practical applications to current and future learning experiences. Some of this available mobile application with technology-enhanced assessment (TEA) tool includes *Kahoot It!*, *Google Quiz*, *Plickers*, *Quizziz*, *Quizalize*, *Socratives*, *Poll Everywhere*, *Quizlet*, *Padlet*, and *Edmodo*.

Utilization Level of Mobile Applications with Technology-Enhanced Assessment (TEA) of Teachers

Table 2. Utilization Level of Mobile Applications with Technology-Enhanced Assessment (TEA) Tool of Teachers (n=116)

List of Mobile Applications	Weighted Mean	Descriptive Interpretation
Quizalize	1.28	Never Utilized
Quiziz	1.54	Sometimes Utilized
Plickers	1.72	Sometimes Utilized
Socrative	1.21	Never Utilized
Poll Everywhere	1.32	Never Utilized
Kahoot It!	1.90	Sometimes Utilized
Google Form (Quiz)	1.86	Sometimes Utilized
Quizlet	1.37	Never Utilized
Padlet	1.20	Never Utilized
Edmodo	1.23	Never Utilized

Legend:

Range of Mean Values	Descriptive Interpretation
3.51-4.00	Always Utilized
2.51-3.50	Often Utilized
1.51-2.50	Sometimes Utilized
1.00-1.50	Never Utilized

Data shows that teachers sometimes utilized four out of the ten free mobile applications in assessing their learners' knowledge and skills. The table shows that *Kahoot It!*, an application that promotes both individualized and team collaborative assessment, obtained the highest mean (1.90). On the other hand, *Google Form (Quiz)*, a survey and polling software, obtained a mean of 1.86; *Plickers*, a mobile application that uses *QR Codes*, has a mean of 1.72; and *Quiziz*, an application similar to Kahoot, got a mean of 1.54. According to Clark and Mayer (2008, cited in Plump, et al.,2017), the benefits gained from using new technologies will depend on the extent to which they are used in ways compatible with the learning process. In the case of Kahoot, they state that using it can support student metacognition by providing immediate feedback. He also pointed out that *Kahoot* supports the construction of

new knowledge and understanding by providing explanations during or after the game.

Meanwhile, six out of ten free mobile applications with TEA tool were never utilized. Padlet, a virtual bulletin board where learners can post their answers, registered the lowest mean (1.20). *Quizalize*, a gamified-based platform, obtained a mean of 1.28, while *Socrative*, an application allowing the teacher to create true/false-based questions, got a mean of 1.21. *Edmodo*, a learning management system including the construction of formative assessment, has a mean of 1.23, while *Poll Everywhere*, an application gathering learner's responses through polls, has a mean of 1.32. Finally, *Quizlet*, a similar application to *Kahoot* and *Quizzes*, has a mean of 1.37. Weller (2013, cited in Kleinsmith, 2017) investigated the effects of using *Padlet* at the elementary level. It

appears promising that *Padlet* may serve as a tool that can be easily incorporated into any classroom, specifically at-risk students receiving remediation.

In general, these mobile applications are classified as free applications. It means that these are free of

charge and are readily available to download in *Apple Store* and *Playstore* via smartphones or tablets. In this study, the researcher discovered that teachers are only starting to use these mobile applications with the technology-enhanced assessment (TEA) tool in their classroom.

Level of Proficiency of Teachers in the Utilization of Mobile Applications with Technology-Enhanced Assessment (TEA) Tool

Table 3. Level of Proficiency of Teachers in the Utilization of Mobile Applications with Technology-Enhanced Assessment (TEA) Tool (n=116)

Level of Utilization	Frequency (f)	Percentage (%)
Entry	46	39.70
Adoption	39	33.60
Adaptation	21	18.10
Appropriation	5	4.30
Innovation	5	4.30
Total	116	100

Table 3 reveals that most of the respondents are at the Entry Level (Level 1), which means that 46 teachers (39.70%) know the basics of using mobile applications. Based on the ACOT Model, teachers at this level tend to have a little discomfort with the use of technology and rely on the technical help of others. At this level, teachers typically use mobile applications in group activities. The big number of teachers at the Entry Level means that teachers have limited experience using mobile applications with technology-enhanced assessment tool. This is because most of them have only trainings or seminars on ICT at the school or district level. Hence, these seminars are not adequate to enhance their technical and assessment skills.

The table also shows that 39 (33.60%) of the respondents are at the “Adoption” Level (Level 2), which means that they have a higher level of utilization of mobile applications with the technology-

enhanced assessment tool. The results imply that those teachers have already started and adopted using mobile applications in assessing their learners. Meanwhile, 21 or 18.10% of respondents are at the “Adaptation” Level (Level 3), at this level, teachers figure out ways to use the devices to their advantage in teaching like finding new ways of monitoring student work, grading tests, creating new materials, and tailoring skills to each student. Lastly, five or 4.30% of the respondents belong to the two highest levels: “Appropriation” (Level 4) and “Innovation” (Level 5).

At the Appropriation level, teachers tend to make a traditional classroom into a student-centered learning environment, which uses technology and promotes cooperative and interdisciplinary works. Teachers who are at this level have shifted their attitudes toward using technology in the classroom. Moreover, according to Cuban (2016), teachers, who are at the

Innovation level, often use mobile applications to create or design authentic task or assessment which they employ new ways of teaching like project-based learning, team teaching, and individualized lessons.

Issues and Concerns in the Utilization of Mobile Applications with Technology-Enhanced Assessment (TEA) Tool

Table 4. Issues and Concerns on the Utilization of Mobile Applications

Issues and Concerns	Weighted Mean	Descriptive Interpretation
A. Accessibility		
1. It helps teachers to give a realistic picture of the task to the learners.	3.41	Agree
2. It is better than printed material in presenting a certain task to the learner.	3.09	Agree
3. It accommodates learner with disabilities through multimedia inputs which cannot be provided in the traditional assessment.	3.14	Agree
4. It allows pupils to share their insights through input mechanism such as a chatbox	3.30	Agree
5. It requires high skills in exploring and navigating all the content of the task.	3.16	Agree
Composite Mean	3.22	Agree
B. Usability		
1. It improves student efficiency in accomplishing a task in a given period.	3.16	Agree
2. It provides an opportunity for teachers to present tasks interactively which improves learners' engagement.	3.30	Agree
3. It provides satisfaction among learners while using it in accomplishing a certain task than the traditional assessments.	3.18	Agree
4. It helps a teacher to gather accurate data on learners' achievement for its data analytical feature than manual checking and scoring	3.28	Agree
5. It helps a teacher to score or mark learners accomplished task in a short period and can provide immediate feedback	3.37	Agree
Composite Mean	3.26	Agree
C. Connectivity/Availability		
1. It is effective when there are sufficient available devices for all the learners since it is for individualized learning only.	3.43	Agree
2. It is only effective when there is fast and sustained internet access.	3.58	Strongly Agree
3. It needs technical skills in implementing assessment using mobile applications	3.43	Agree

4. It provides discomfort on learners who have a low awareness and of how to use a mobile application	3.24	Agree
5. It requires the availability of the latest devices in the market	3.17	Agree
Composite Mean	3.37	Agree
Overall Mean	3.28	Agree

Legend:

Range of Mean Values	Descriptive Interpretation
3.51-4.00	Strongly Agree
2.51-3.50	Agree
1.51-2.50	Disagree
1.00-1.50	Strongly Disagree

The table shows that the composite mean 3.22, which suggests that respondents agree that they encounter all the presented issues and concerns under accessibility. The item, “it helps teachers to give a realistic picture of the task to the learners”, obtained the highest mean (3.41). The result denotes those mobile applications use images, audio, videos, and others that can capture or improve the interest of learners. On the other hand, the item, “it is better than printed material in presenting a certain task to the learner”, got the lowest mean (3.09). This suggests that technology does not replace the traditional way of instruction and delivery of assessment, but it helps and supports in bringing up a quality instruction as well as assessment.

In terms of usability with a composite mean of 3.26, it suggests that the respondents agree that they encounter all the presented issues and concerns. The item, “it helps a teacher to score or mark learners’ accomplished task in a short period and can provide immediate feedback” obtained the highest mean (3.38). According to Nielsen (1993, cited in Dourado & Canedo, 2018), one important component of mobile applications is their usability features like efficiency, effectiveness, and satisfaction. On the other hand, the item, “it improves student efficiency in accomplishing a task in each period”, got the lowest mean (3.16).

Technology helps learners accomplish certain tasks because it gives more resources and information about a problem. However, it does not guarantee learner's efficiency because there are other factors like knowledge and skills that contribute to the learner's performance.

As to Connectivity/Availability, the table shows that the composite mean, 3.37, suggests that the respondents agree that they encounter all the presented issues and concerns under connectivity or availability. The item, “it is only effective when there is fast and sustained internet access”, got the highest mean (3.58). Meanwhile, the item, “it requires the availability of the latest devices in the market”, obtained the lowest mean (3.17). This means that teachers can only use these mobile applications successfully if consideration is given to the availability of devices with good specifications. According to Quareshi, et al. (2012, cited in Kanwal & Rehman, 2017), technology innovation comes with challenges in the implementation of the said project or program. Some of these challenges are technical difficulties and access to computers/mobile devices. include installation, availability of latest technology, fast internet connection, and uninterrupted supply of electricity, maintenance, administration, security, and absence of technical support.

The overall mean, 3.28, suggests that the respondents agree that they encounter all the presented issues and concerns under accessibility, usability, and connectivity/availability. It is essential to

know the issues and problems that confront teachers to implement appropriate interventions that can improve the educational perspectives of using mobile applications to support and deliver the assessment.

Summary on the Issues and Concerns in the Utilization of Mobile Applications

Table 5. Summary on the Issues and Concerns on the Utilization of Mobile Applications

Issues and Concerns	Weighted Mean	Descriptive Interpretation
Accessibility	3.22	Agree
Usability	3.26	Agree
Connectivity/Availability	3.37	Agree
Overall Mean	3.28	Agree

Legend:

Range of Mean Values	Descriptive Interpretation
3.51-4.00	Strongly Agree
2.51-3.50	Agree
1.51-2.50	Disagree
1.00-1.50	Strongly Disagree

The overall mean, 3.28, suggests that the respondents *agree* that they encounter all the presented issues and concerns under accessibility, usability, and connectivity/availability. Thus, it is important to solve these issues and concerns by providing enough funds for additional resources like tablets and smartphones, enhancing and securing strong and fast internet connectivity, and implementing skills development programs and training for teachers.

CONCLUSION

In the light of the findings, the researcher presents the following conclusions: In terms of the teachers' level of proficiency in the utilization of mobile

applications with TEA tool, majority of the teacher-respondents are still at the three lowest levels: Entry, Adoption, and Adaptation Levels. Only four out of the 10 mobile applications with the TEA tool are sometimes utilized. In addition, there are issues and concerns that challenge them in the implementation and integration of the mobile applications with TEA tool into their classroom assessment. Thus, the researcher developed the Improvement Plan on the Utilization of Mobile Applications with Technology-Enhanced Assessment (TEA) tool that seeks to address teachers' issues and concerns and increase their skills in using mobile applications with TEA tool for classroom assessment.

References

- Almeida, A. B., Gaerlan, A. A., and Manly N. (2016). Research Fundamentals. From Concept to Output. Adriana Publishing Inc.
- Appiah, M., & Van Tonder, F. (2018). E-Assessment in Higher Education: A Review. International

-
- Journal of Business Management & Economic Research, 9(6). <https://www.researchgate.net>
3. Ballantyne, Mars & Jha, Archit & Jacobsen, Anna & Hawker, John & El-Glaly, Yasmine. (2018). Study of Accessibility Guidelines of Mobile Applications. <https://www.researchgate.net>
 4. Beatty, Ian & Gerace, William. (2009). Technology-Enhanced Formative Assessment: A Research-Based Pedagogy for Teaching Science with Classroom Response Technology. *Journal of Science Education and Technology*. 18. 146-162. <https://www.researchgate.net/>
 5. Chung, C. J., Hwang, G. J., & Lai, C. L. (2019). A review of experimental mobile learning research in 2010–2016 based on the activity theory framework. *Computers & Education*, 129, 1-13.
 6. DepEd Order 29, s. 2017, Policy Guidelines on System Assessment in the K to 12 Basic Education Program <https://www.deped.gov.ph/>
 7. DepEd Order 8, s. 2015, Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program <https://www.deped.gov.ph/>
 8. Drigas, Athanasios & Pappas, Marios. (2015). A Review of Mobile Learning Applications for Mathematics. *International Journal of Interactive Mobile Technologies*. <https://www.researchgate.net>
 9. Hench, Thomas. (2014). e-assessment: Past, Present, and Future. *International Journal of e-Assessment*. 4. <https://www.researchgate.net>
 10. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 2016, Vol. 12, Issue 3, pp. 37-57. Experiences, perceptions, and attitudes on ICT integration: A case study among novice and experienced language teachers in the Philippines. <https://files.eric.ed.gov/>
 11. Karabatzaki, Zoe & Stathopoulou, Agathi & Kokkalia, Georgia & Dimitriou, Eleni & Loukeri, Paraskevi & Economou, Alexandra & Drigas, Athanasios. (2018). Mobile Application Tools for Students in Secondary Education. <https://www.researchgate.net>
 12. Kumar, B. A., & Mohite, P. (2018). Usability of mobile learning applications: a systematic literature review. *Journal of Computers in Education*, 5(1), 1-17.
 13. McLean, K. (2018). ICT for Learning: Technology and Pedagogy. In *Personalising Learning in Teacher Education* (pp. 41-54). Springer, Singapore. <http://www.jtla.org>
 14. Neumann, M. M., & Neumann, D. L. (2017). The use of touch-screen tablets at home and pre-school to foster emergent literacy. *Journal of Early Childhood Literacy*. www.springer.com
 15. Oducado, Ryan Michael. (2020). Survey Instrument Validation Rating Scale. <https://www.researchgate.net>
 16. Panero, Monica & Aldon, Monica (2016) How Teachers Evolve Their Formative Assessment Practices When Digital Tools Are Involved in the Classroom. *Digit Exp Math Educ*. <https://link.springer.com/>
 17. Papadakis, Stamatios & Kalogiannakis, Michail. (2017). Mobile educational
-

-
- applications for children. What educators and parents need to know. *International Journal of Mobile Learning* and Organisation. <https://www.researchgate.net>
18. Plump, Carolyn & LaRosa, Julia. (2017). Using Kahoot! in the Classroom to Create Engagement and Active Learning: A Game-Based Technology Solution for e-Learning Novices. <https://www.researchgate.net>
 19. Sahin, Fusun & Mentor, Dominic. (2016). Using Mobile Phones for Assessment in Contemporary Classrooms. <https://www.researchgate.net>
 20. Shepard, L.M. (2001). The role of classroom assessment in teaching and learning. In V. Richardson (ed), *Handbook of research on teaching* (4th ed). Washington: AERA <https://www.researchgate.net/publication>
 21. Supandi, Supandi & Ariyanto, Lilik & Kusumaningsih, Widya & Aini, A. (2018). Mobile phone application for mathematics learning. *Journal of Physics: Conference Series*. 983. 012106. 10.1088/1742-6596/983/1/012106. <https://www.researchgate.net>
 22. Sung, Y. T., Chang, K. E., & Liu, T. C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education*, 94. <https://www.researchgate.net>
 23. Usta, G., Günal, Y., & Uluman, M. (2016). Views of Instructors and Students Regarding Online Measurement and Evaluation Applications. <https://www.researchgate.net>
 24. Whitelock, Denise & Gilbert, Lester & Gale, Veronica. (2011). Technology-enhance assessment and feedback: How is evidence-based literature informing practice? <https://www.researchgate.net/publication/272415796>

Pedagogical Competencies of Alternative Learning System (ALS) Teachers: Its Influence on the Learners' Achievement Motivation

¹JONATHAN M. OCAMPO

¹Professor, Wesleyan University Philippines

ABSTRACT

Introduction: The Alternative Learning System is a program that ensures the realization of the Department of Education's vision of "no student is left behind". This entailed providing opportunities for marginalized groups like children, women, people with special needs, indigenous peoples, out of school youths and dropouts to pursue and complete their education through innovative, creative, and nontraditional ways.

Methods: This correlation study aimed to explore the relationship between the ALS teachers' pedagogical competencies and the ALS student's achievement motivation. It also determined if the teachers' competence predicts learners' motivation. One hundred fifty (150) ALS learners and one hundred forty-four (144) ALS teachers from the various school divisions of the province of Nueva Ecija were the respondents of the study.

Results: The findings showed that majority of the ALS learners were 18–22 of age, mostly female, unemployed, married, Tagalog speaking and were only able to reach elementary level. The ALS teachers were mostly aged 26-30 years old, female, have taught for 5 years and less, Teacher 1 and are Roman Catholics. The teachers have shown various degrees of teaching competencies and had the minimum professional characteristics. On the other hand, learners were shown to be motivated to take the program. Furthermore, findings also showed that male learners and those who were single were more motivated to pursue the program. On the other hand, the teachers' area of specialization and longer time spent on teaching meant higher motivation for their students.

Conclusions: Specific competencies such as social regard for learning and diversity of learners had a positive impact with the learners as well. The more competent the teacher in terms of social regard for learning, the more probability that the learners will pursue the ALS program. The Department of Education should include motivation-building programs and positive attitude reinforcement and building on the present materials used to include the topics in the curriculum or learning strands.

Keywords: Alternative Learning System, Out of School, Motivations, Teacher Competencies, Quality Education

INTRODUCTION

Educational attainment is important to any\ kind of race of orientation, Filipinos value educational attainment for they believe that knowledge leads to a better life. Thus, the higher a person goes up at the formal educational ladder, the more knowledge he or she acquires and expectedly, the more wealth he or she generates or produces. Being wealthy means having power, influence, and social prestige. Thus, earning a four-year college degree is the surest path to higher socioeconomic status (Stephens et al., 2014).

For some families, education is their way out of poverty. The supreme ambition of every Filipino family, therefore, is to send every child to school regardless of the sacrifices it might entail on the part of at least one of the children, preferably the oldest child, should get at least a high school diploma so that he or she can take care of a younger sibling's or in extreme cases the needs of the entire family (Tindowen et al., 2017). Although they generally agree that education can be obtained inside and outside school, they believe that the primary sources of knowledge are the schools (Broadbent, & Poon, 2015). However, not all individuals enjoy the privilege of sending children to formal schooling. Most dropouts were unable to complete basic education which is supposed to be free. Numerous factors have been determined that can potentially limit a child's potential and academic achievement. According to Banerjee (2016), contextual indicators continue to be the determining parameters for educational attainment, learning trajectories and careers. It has been established in previous studies and literatures, that teachers can have a positive or negative effect on the students' learning outcomes however the

influence of teachers among informal learners have not yet been clearly explored (Carnoy & Crisholm, 2015).

Adversities are faced by disadvantaged and informal learners such as indigenous people, displaced victims of sectarian violence, people who are incarcerated or institutionalized, immigrants, teen mothers, persons with disabilities, out of school youth and adults as well as very poor pupils. Family income below a certain threshold, residence in a potentially deprived area or low progression neighborhoods are focus of efforts for widening participation agenda and the target by government of more developed countries (Wigfield & Eccles, 2019).

Policies have been in place to remediate the unfair underrepresentation and underachievement of children and young people in learning paths. Free compulsory education to a certain age is one of the efforts under this policy in developed and developing countries. The Philippines offers free education across all ages as well as disadvantaged learners such as out of school individuals. The Alternative Learning System (ALS) of the Department of Education is an example of such program that provides free education to less fortunate specifically those who couldn't complete basic education to earn an elementary or high school diplomas (Yasmin, 2013).

The Philippines, in its effort to combat school attrition through strengthening student programs and developing a system that will promote continuing education, thus, promulgated Republic Act 9155 in 2001 or the Governance Act of Basic Education which provides provisions for Alternative Learning System (ALS) will address illiteracy and promote continuing

education. The implementation of ALS paved way to the rights for education to be asserted by marginalized groups like children, women, people with special needs, and Indigenous people communities and out-of-school-youths (OSY) who did not finish their basic education due to economic and support issues. Many studies had shown that globalization favors the educated, skilled, and mobile workers, and marginalized groups who are denied of access to education will most likely be unable to benefit from modernization.

With this arguments, the study sought to determine the pedagogical competencies of Alternative Learning System (ALS) teachers and its influence to the learners' achievement motivation.

RESEARCH QUESTIONS

The main purpose of this study was to explore the relationship between the Alternative Learning System teachers specifically their professional characteristics and instructional competency and the ALS learners' achievement motivation: Specifically, the study sought to answer the following questions: (1) How may the socio-demographic profile of Alternative Learning System (ALS) learners be described in terms of age, sex, employment status, ethnicity, educational attainment, and civil status? (2) How may the socio-demographic profile of Alternative Learning System (ALS) teachers be described in terms of age, sex, civil status, school division, number of years as ALS teacher, rank/position, and religion? (3) How may the ALS teachers' professional characteristics be described in terms of highest educational attainment, major subject area of specialization, school

graduated, years of teaching experience, number of contact teaching hours a week, and average number of trainings/seminars attended in a year? (4) How may the achievement motivation of the ALS learners be described in terms of intrinsic motivation – know, intrinsic motivation – toward accomplishment, intrinsic motivation – to experience stimulation, extrinsic motivation – identified, extrinsic motivation – introjected, extrinsic motivation – external regulation, and amotivation? (5) How may the teachers' instructional competence be described in terms of the following dimensions: social regard for learning, learning environment, diversity of learners, content and pedagogy, planning, assessing, and reporting, community linkages, and personal, social growth and professional development? (6) Is there a significant relationship between the socio-demographic profile of the ALS learners and their achievement motivation? (7) Is there a significant relationship between the teachers' professional characteristics and achievement motivation of ALS learners? (8) Is there a significant relationship between the teachers' instructional competence and the achievement motivation of ALS learners? and (9) Do the teachers' professional characteristics and instructional competence predict achievement motivation of ALS learners?

METHODOLOGY

Research Design. The study employed the descriptive correlational research approach to examine how the profile of ALS teachers and learners relates to the achievement motivation of ALS learners. Additionally, the study aimed to investigate whether the professional characteristics and instructional competencies of ALS teachers can predict

the achievement motivation of their students.

Participants/Respondents.

Participants were students and teachers. These were teachers and students of the Alternative Learning System of the Department of Education school divisions of Nueva Ecija, including San Jose City, Gapan City, Munoz Science City, Cabanatuan City, and Nueva Ecija. Quota sampling was used to select 150 ALS learners from all DepEd divisions in Nueva Ecija.

Data Gathering Tools. This study employed a self-survey questionnaire checklist with a four-point Likert scale to assess ALS teacher and learner instructional ability and accomplishment motivation. Respondents used two questionnaires, the researcher-modified National Competency-Based Teacher Standards (NCBTS) Teacher's Strengths and Training Needs Assessment (TSNA) Tool on instructional competencies and the Academic Motivation Scale (AMS-HS 28) High School Version for learner-respondent achievement motivation.

Data Gathering Procedures. Two groups were surveyed. The Schools Division Superintendent granted authorization after receiving clearance from the Graduate School Dean and Institutional Ethics Committee. The superintendents of Nueva Ecija's five schools' divisions received letters from the researcher seeking permission to collect data from ALS instructors and students. The researcher was officially approved to the ALS Education Program Specialist, Schools District Supervisor, and School Principal for support. Before answering the validated tools on their profile, the instructors' professional features, their instructional competency, and the students'

accomplishment motivation, ALS learners and teachers were informed of their consent.

Instrumentation. The study utilized two sets of self-survey questionnaire. For the ALS learner-respondents, A three (3) – part self-survey questionnaire was used. Part 1 pertains to the profile of the ALS student that includes age, sex, employment status, ethnicity, highest educational attainment, and civil status. Part 2 includes the Academic Motivation Scale (AMS-HS 28) High School Version. Part 3 is the open-ended question portion which served as clarification or to support the responses of the learner-respondents.

Data Analysis. The questionnaires were collected, recorded, and tallied. Descriptions utilized frequency table, mean, and standard deviation. The researcher utilized descriptive statistics like ranking, frequency, percentage, and weighted mean, inferential analysis like Spearman's Rho, multiple regression analysis, and stepwise to remove independent variables that did not affect ALS learners-respondents' accomplishment motivation. All tests utilized 0.05 percent significance.

RESULTS AND DISCUSSION

Socio-Demographic Profile of ALS Learners in Nueva Ecija. This part presents the socio-demographic profile of the Alternative Learning System learners and their achievement motivation.

Table 1 presents the socio-demographic profile of the Alternative Learning System (ALS) learner-respondents with regards to their age, sex,

employment status, ethnicity, educational attainment, and civil status.

Table 1. Socio-Demographic Profile of ALS Learner Respondents in Nueva Ecija

Items	Frequency	Percentage
Age	f	%
18 - 22	103	68.7
23 - 27	25	16.7
28 - 32	12	8.0
33 - 37	3	2.0
38 - 42	4	2.7
43 – and above	1	.7
Sex	f	%
Male	68	45.3
Female	82	54.7
Employment Status	f	%
Working	53	35.3
Not Working	97	64.7
Ethnicity	f	%
Tagalog	115	76.7
Ilocano	23	15.3
Bisaya	7	4.7
Kapangpangan	5	3.3
Highest educational attainment	f	%
Grade 1	4	2.7
Grade 2	2	1.3
Grade 3	3	2.0
Grade 4	5	3.3
Grade 5	27	18.0
Grade 6	14	9.3
Grade 7	32	21.3
Grade 8	20	13.3
Grade 9	5	3.3
Grade 10	14	9.3
First Year	13	8.7
Second Year	11	7.3
Civil Status	f	%
Single	111	74.0
Married	37	24.7
Widow/er	2	1.3

There were 103 (18–22-year-old) learners responded. Likewise, there were 25 (16.7%) of 23–27-year-olds. In addition, there were 0.7% of students were 43–47, 48–52, and 63+. 82 (54.7%) female, 68 (45.3%) male. ALS enrollees were 53 (35.3%) employed and 97 (64.7%) jobless. There are 115 spoke Tagalog, 32 Ilocano, and 7 Bisaya. Grade 7 had 32 or 21.3% of the highest-achieving kids before the ALS, followed by Grade 5 with 27 or 18%. Finally, 1.3% made Grade 2. 111

respondents (74%) were single, while 37 (24.7%) were married and two are widowed (1.3%).

Socio-Demographic Profile of ALS Teachers in Nueva Ecija. Table 2 presents the socio-demographic profile of the Alternative Learning System (ALS) teachers in terms of their age, sex, civil status, school division, number of years as ALS teacher, their rank or position and their religion

Table 2. Socio-Demographic Profile of ALS Teacher Respondents

Items	Frequency	Percentage
Age	f	%
20 – 25	25	17.4
26 – 30	45	31.3
31 – 35	31	21.5
36 – 40	22	15.3
41 – 45	8	5.6
46 – 50	5	3.5
51 – 55	6	4.2
56 & above	2	1.4
Sex	f	%
Male	65	45.1
Female	79	54.9
Civil Status	f	%
Single	45	31.3
Married	99	68.8
School Division	f	%
Nueva Ecija	92	63.9
Cabanatuan City	18	12.5
San Jose City	13	9.0
City of Gapan	12	8.3
Science City of Muñoz	9	6.3
Number of Years as ALS Teacher	F	%
5 years and below	83	57.6
6 – 10 years	38	26.4
11 – 15 years	22	15.3
16 – 20 years	1	.7
Rank Position	F	%
Teacher 1	91	63.2
Teacher 2	35	24.3
Teacher 3	17	11.8
Master Teacher	1	.7
Religion	F	%
Roman Catholic	90	62.5
INC	19	13.2
Born Again Christian	15	10.4
Methodist	8	5.6
Protestant	5	3.5
Adventist	3	2.1
Baptist	1	.7
Others	3	2.1

In the above table, most of the teachers belonged to the 26 to 30 years old age bracket with 45 or 31.3% followed by the 31 to 35 years old bracket with 31 or 21.5. The least were the 2 teachers coming from the 56 and above age bracket (1.4%). In terms of sex, majority of the ALS teachers were women with 79 or 54.9% while 65 were men or 45.1% which shows that the ratio was almost equal. On the other hand, civil status shows that most were married with 99 or 68.8% with 45 or 31.3% who was single.

Due to its bigger area of responsibility and number of school districts, the Division of Nueva Ecija has

the most ALS teachers-respondents (92, 63.9%), followed by the Division of Cabanatuan City (18, 12.5%). 57.6% or 83 respondents had taught ALS for five years or less, showing that most were new to the program. There were 26.4% of teachers with 6–10 years and 22.3% with 11–15 years followed. There were 0.7% have taught ALS. Teacher 1 (91, 63.2%), Teacher 2 (35, 24.3%), and Teacher 3 (17, 11.8%) responded most. There were 62.5% of ALS respondents were Roman Catholics, the Philippines' largest religion.

Professional Characteristics of Alternative Learning System Teachers. Table 3 presents the professional

characteristics of the Alternative Learning System teachers in terms of their highest educational attainment, major subject area of specialization, school graduated, years of

teaching experience, number of contact teaching hours a week and average number of trainings/seminars attended in a year.

Table 3. ALS Teachers' Professional Characteristics (n=144)

Items	Frequency	Percentage
Highest Educational Attainment	F	%
Bachelor's Degree	89	61.8
Master's Degree	55	38.2
Major Subject Area of Specialization	F	%
Science	23	16.0
Math	22	15.3
English	15	10.4
Filipino	10	6.9
TLE	8	5.6
Values	8	5.6
Social Studies	8	5.6
General Education	7	4.9
Social Sciences	6	4.2
Industrial Arts and Related Discipline	6	4.2
Home Economic	5	3.5
MAPEH	5	3.5
Agriculture and Fisheries	4	2.8
Major Subject Area of Specialization	F	%
Biological Sciences	4	2.8
Biology	4	2.8
Music	3	2.1
Physical Education	3	2.1
Educational Management	1	.7
General Science	1	.7
Political Science	1	.7
School Graduated	F	%
Public	87	60.4
Private	57	39.6
Total	144	100.00
Years of Teaching Experience	F	%
1 to 5 years	61	42.4
6 to 10 years	37	25.7
11 to 15 years	27	18.8
16 to 20 years	8	5.6
21 to 25 years	7	4.9
26 to 30 years	2	1.4
31 and above	2	1.4
Number of Contact Hours a Week	F	%
21 to 30 hours	13	9.0
31 to 40 hours	131	91.0
Average Number of Trainings/Seminars Attended in a in a Year	F	%
1	2	1.4
2	8	5.6
3	13	9.0
4	16	11.1
5	91	63.2
6	6	4.2
7	5	3.5
8	2	1.4

In consonance with most of the teachers have bachelors' degree with 89 or 61.8% while the rest are holders of master's degree with 55 or 38.2%. In terms of their major subject or area of specialization the values are almost spread within the major

areas/field of science with 23 or 16%, and Math with 22.

Regarding the type of school where they graduated, most came from public, or state owned higher educational institutions

with 87 or 60.4% while 57 or 39.6% graduated from private HEIs. For the teacher respondents' years of teaching experience, most are basically new to the teaching profession with 61 of the respondents having taught only for 1 to 5 years or 61%. This is followed by those with 6 to 10 years of teaching experience with 37 or 25.7%. There are 91% of ALS teacher-respondents who teach 31–40 hours a week, while 13% teach 21–30 hours. ALS teacher averaged 5 trainings and seminars, with 91 or 63.2% attending 5 and 16 or 11.1% attending 4.

Achievement Motivation of the ALS Learners. Table 4 presents the data gathered on the achievement motivation as described by the ALS learner-respondents in terms of intrinsic motivation – to know, intrinsic motivation – toward accomplishment, intrinsic motivation – to experience stimulation, extrinsic motivation – identified, extrinsic motivation – introjected, extrinsic motivation – external regulation and amotivation.

Table 4. Achievement Motivation of the ALS Learners

Item	Mean	Verbal Description
To know	3.61	Corresponds a Lot
To experience	3.55	Corresponds a Lot
Extrinsic Motivation - Identified	3.63	Verbal Description
Extrinsic motivation - Introjected	3.44	Corresponds a Lot
Extrinsic motivation – External Regulation	3.51	Corresponds a Lot
Amotivation	1.40	Do not correspond a Lot
Composite Mean	3.19	Corresponds

Legend: 4.00 - 3.26 – Corresponds a Lot; 3.25-2.51 – Corresponds; 2.50 – 1.76 Does not Correspond; 1.75 – 1.00 - Do not correspond a Lot

The subset Extrinsic Motivation – Identified scored the highest with an overall weighted mean of 3.63 or interpreted as "Corresponds a Lot," followed by the subsets Intrinsic Motivation – To Know and Extrinsic Motivation – Introjected, both of which scored 3.61 and were interpreted as "Corresponds a Lot," and finally Intrinsic Motivation – Towards Accomplishment, which scored 3.55. Finally, Extrinsic Motivation – External Regulation had a weighted mean of 3.52 or "Corresponds a Lot," while Amotivation had the lowest weighted mean of 1.40 or "Do not correspond".

For the subset Intrinsic Motivation – To Know, the item "For the pleasure that I experience in broadening my knowledge about subjects which appeal to me" had a weighted mean of 3.69 and was interpreted as "Corresponds a Lot," followed by

"Because my studies in ALS allow me to continue to learn about many things that interest me" with a 3.65 weighted mean. Finally, "For the pleasure I have when I find new things never seen before" is "Corresponds a Lot".

In Extrinsic Motivation – Identified, the item "Because I want to show myself that I can achieve in my academics" got the highest weighted mean with 3.80 and interpreted as "Corresponds a Lot," followed by "To prove to myself that I am capable of completing my high-school degree" with 3. "To show myself that I am an intellectual person" had the lowest mean of 3.45 and was read as "Corresponds a Lot".

The item "Because studying in ALS allows me to experience a personal satisfaction in my quest for excellence in

my studies" had the highest weighted mean of 3.64 and was verbally interpreted as "Corresponds a Lot" in Intrinsic Motivation – Toward Accomplishment. Finally, "For the pleasure I receive while surpassing myself in my studies" had the lowest mean of 3.44 and was evaluated as "Corresponds a Lot".

"Because I want to have the excellent life later on" had the highest weighted mean of 3.75 verbally interpreted as "Corresponds a Lot" for the subset Extrinsic Motivation – External Regulation, followed by "In order to achieve a more prominent position later on" with 3.57. Finally, the item "Because I require at least a high school degree in order to find a well-paying career later" had the lowest mean (3.21).

In the subset Amotivation, the item "I once had good reasons for going to school in ALS; however, now I wonder whether I should continue" had the highest weighted mean of 1.58 and was interpreted as "Do not correspond a lot," followed by "I can't see why I go to school in ALS and frankly, I couldn't care less" with 1.37. "I don't know; I can't grasp what I am doing at school in ALS" got the lowest weighted mean of 1.28. The weighted mean of the three subsets of extrinsic motivation

(identified, introjection, and external regulation) was 3.59, compared to the weighted mean of intrinsic motivation (to know, accomplish). Extrinsic motivation drove most Alternative Learning System students. Participants want a solid job, a high school diploma, or a college degree.

Age, civil status, and employment status of the students may have contributed also to this as majority of the learner-respondents fell under the young age groups of 18 to 22 years old and 23 to 27 years old forming the bulk of the learners where many are single and unemployed. Belonging to the above-mentioned age group means youthful energy or idealism common with their age group. Atilano et al. (2016) found that most ALS program dropouts were due to lack of interest, employment, and motivation since students thought coursework was unimportant to their basic human needs.

ALS Teachers' Instructional Competence. Table 5 shows the Alternative Learning System teachers' instructional competency in social regard for learning, learning environment, variety of learners, content and methodology, planning, assessing, and reporting, community links, and personal, social, and professional development.

Table 5. Instructional Competencies of Alternative Learning System Teachers

Items	Mean	Verbal Interpretation
Social Regard for Learning	3.75	High
Learning Environment	3.82	High
Diversity of Learners	3.76	High
Content and Pedagogy	3.83	High
Planning, Assessing and Reporting	3.81	High
Community Linkages	3.80	High
Personal, Social Growth and Professional Development	3.68	High
Overall	3.78	High

Legend: 4.00 - 3.26 – High; 3.25 - 2.51 – Satisfactory; 2.50 - 1.76 – Fair; 1.75 - 1.00 - Low

Among the seven dimensions of teacher's instructional competence, the subset "Content and Pedagogy" got the highest overall weighted mean with 3.83

and interpreted as "High" followed by the dimension "Learning Environment" with an overall weighted mean of 3.82 and described also as "High. Lastly the

dimension with the lowest mean is “Social Regard for Learning” got an overall weighted mean of 3.75 and verbally interpreted as “High”.

For the dimension Content and Pedagogy, the item "Motivate and engage learners in activities that develop higher order thinking skills" had the highest weighted mean of 3.94 or High, followed by "Give sufficient time to explain the lessons for clear understanding of the learners after explaining learning goals, concepts, and processes to learners" and "Apply various appropriate strategies and/or technology to motivate & sustain." "Apply current material knowledge and teaching strategy in my subject area" had the lowest weighted mean of 3.69, read as High. This shows that the ALS teachers exerted effort to teach the lessons creatively, efficiently, and patiently. Such includes engaging the learners in challenging activities that requires critical thinking.

Moreover, under the dimension Community Linkages, the ALS teachers gave more weight to the item “Show sensitivity to the needs of the community” with a mean of 3.87 or High followed by the items “Promote shared accountability for the learners' achievement by involving the community in the programs, projects and thrusts of the DepEd- ALS” and “Link with sectors for involvement in community work” both with a weighted mean of 3.84 and interpreted as High.

In Diversity of Learners, "Assist learners in setting learning goals for themselves" and "Know teaching principles and strategies for addressing learners' needs and difficulties" ranked highest with a weighted mean of 3.88 and interpreted as High, while "Use appropriate strategies for learners with special needs" ranked second with 3.82. The lowest score was 3.64 for "Use approaches to motivate learners of lower socio-economic level." "Consider the influence my behavior has on children" had the highest weighted mean of 3.93 and followed by "Know, understand and implement school regulations, procedures and operations" at 3.86. Finally, "Understand and apply information, theoretical concepts, and principles of social learning in working with pupils" got the lowest weighted mean of 3.54.

For the Alternative Learning System teachers, putting more emphasis on content and pedagogy, learning environment and planning, assessing, and reporting is of primary importance and obviously their perceived strengths.

Relationship Between the Profile of the ALS Learners and their Achievement Motivation. Table 6 shows the significant relationship between the profile of the ALS learner-respondents and their achievement motivation. The data revealed that there was no significant relationship with the learner’s profile in terms of age, employment status, ethnicity, educational attainment, and their achievement motivation.

Table 6. Relationship between the Profile of the ALS Learners and their Achievement Motivation

		Age	Sex	Emp	Ethn	Edu	Civ
Intrinsic Motivation	Correlation Coefficient	.133	.171*	.003	.053	-.083	.185*
	Sig. (2-tailed)	.105	.036	.968	.517	.311	.024
Know	N	150	150	150	150	150	

Intrinsic Motivation Toward Accomplish	Correlation Coefficient	.106	.130	.065	.125	-.084	.165*
	Sig. (2-tailed)	.197	.112	.432	.126	.306	.043
	N	150	150	150	150	150	150
Intrinsic Motivation Experience Stimulation	Correlation Coefficient	.099	.125	.050	.131	-.102	.090
	Sig. (2-tailed)	.229	.127	.542	.109	.214	.275
	N	150	150	150	150	150	150
Extrinsic Motivation Identified	Correlation Coefficient	.177	.198*	.032	.042	-.057	.232*
	Sig. (2-tailed)	.153	.015	.698	.611	.489	.004
	N	150	150	150	150	150	150
Extrinsic Motivation Introjected	Correlation Coefficient	.087	.169*	.069	.154	-.092	.165*
	Sig. (2-tailed)	.287	.038	.405	.060	.262	.044
	N	150	150	150	150	150	150
Extrinsic Motivation Regulation	Correlation Coefficient	-.003	.135	.007	.059	-.032	.056
	Sig. (2-tailed)	.973	.100	.928	.474	.695	.497
	N	150	150	150	150	150	150
Amotivation	Correlation Coefficient	.043	-.097	-.064	-0.14	-.020	-.059
	Sig. (2-tailed)	.602	.247	.439	.864	.804	.472
	N	150	150	150	150	150	150

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

In terms of sex, it had no significant relationship with the subsets' Intrinsic Motivation – Toward Accomplishment, Intrinsic Motivation – To Experience Stimulation, Extrinsic Motivation – External Regulation and Amotivation. However, there were significant relationship with the subsets; Intrinsic Motivation – To Know, Extrinsic Motivation – Identified and with Extrinsic Motivation – Introjected.

This shows that sex was positively correlated with both learners' intrinsic and extrinsic motivation with Extrinsic Motivation – being highly significant.

Even though women outnumber men in ALS, men were more driven. Civil status also strongly connected with the subsets of intrinsic and extrinsic motivation. Single ALS learners-respondents were also more motivated to pursue the ALS program due to their civil status.

Relationship of Teachers' Professional Characteristics and Achievement Motivation of ALS Learners. Table 7 reflected the significant relationship between the ALS teacher-respondents' professional characteristics and the ALS learner-respondents achievement motivation.

Table 7. Relationship of Teachers' Professional Characteristics and Achievement Motivation of ALS Learners

		HEA	Subj Maj	Sch Grad	Year Exp	Cont/ Week	Train Sem
Intrinsic Motivation	Correlation Coefficient	.097	.088	-.019	.091	.157	.075
	Sig. (2-tailed)	.247	.296	.822	.278	.061	.371
	N	144	144	144	144	144	144
Intrinsic Motivation Toward Accomplish	Correlation Coefficient	.142	.044	.021	.120	.231**	.087
	Sig. (2-tailed)	.090	.604	.804	.151	.005	.301
	N	144	144	144	144	144	144
Intrinsic Motivation Experience Stimulation	Correlation Coefficient	.119	.165*	.044	.139	.150	.036
	Sig. (2-tailed)	.155	.048	.599	.098	.072	.671
	N	144	144	144	144	144	144
Extrinsic Motivation Identified	Correlation Coefficient	.080.3	-.061	-.057	.057	.119	-.008
	Sig. (2-tailed)	.42	.465	.501	.499	.157	.924
	N	144	144	144	144	144	144
Extrinsic Motivation Introjected	Correlation Coefficient	.084	-.052	.050	.121	.161	-.020
	Sig. (2-tailed)	.314	.536	.549	.149	.054	.814
	N	144	144	144	144	144	144
Extrinsic Motivation External Regulation	Correlation Coefficient	.034	.025	-.070	.055	.078	.035
	Sig. (2-tailed)	.689	.768	.402	.514	.351	.680
	N	144	144	144	144	144	144
Amotivation	Correlation Coefficient	.01685	-.097	-.110	-0.14	.064	-.003
	Sig. (2-tailed)	.2	.247	.176	.190	.449	.975
	N	144	144	144	144	144	144

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Intrinsic Motivation - To Experience Stimulation was positively connected with major subject specialization. However, ALS learners' Intrinsic Motivation - To Know, Intrinsic Motivation - Experience Stimulation, Extrinsic Motivation - Identified, Introjected, External Regulation, and Amotivation were unrelated to contact instruction hours per week. However, ALS teachers' teaching hours highly linked with students' intrinsic motivation to succeed.

The ALS teacher's major subject area and how long they teach the learners

correlate with the ALS achievement motivation. This means that the teachers major, or specialization is related to a certain extent with the motivation of the students. Teachers in the Alternative Learning System have diverse field of specialization and are supposed to be generalists because they cover a broad spectrum of subjects or topics.

Relationship Between the ALS Teachers' Instructional Competence and Achievement Motivation of ALS Learners. Table 8 reflects the significant relationship between the ALS teachers'

instructional competence and the ALS learners' achievement motivation. The data showed that the teachers' description of their competencies in terms of learning environment, content and pedagogy, their planning, assessing, and reporting,

community linkages and personal, social growth and professional development does not have significant relationship with the learner-respondents achievement motivation.

Table 8. Relationship between the ALS Teachers' Instructional Competence and Achievement Motivation of ALS Learners

		Soc Reg	Lea Env	Div Lea	Con Ped	Pla/ Ass	Co Lin	Per Soc
Intrinsic Motivation Know	Correlation Coefficient	.131	.092	.157*	.062	.031	.050	.001
	Sig. (2-tailed)	.052	.164	.021	.361	.656	.475	.984
	N	144	144	144	144	144	144	144
Intrinsic Motivation Toward Accomplish	Correlation Coefficient	.045	.036	.037	.043	-.021	.089	.008
	Sig. (2-tailed)	.498	.584	.585	.525	.755	.200	.912
	N	144	144	144	144	144	144	144
Intrinsic Motivation Experience Stimulation	Correlation Coefficient	.072.282	.036	.026	.075	-.056	.007	.015
	Sig. (2-tailed)	144	.588	.697	.263	.412	.923	.824
	N	144	144	144	144	144	144	144
Extrinsic Motivation Identified	Correlation Coefficient	.065	.039	.135*	.089	.021	.041.	-.003
	Sig. (2-tailed)	.340	.559	.050	.192	.764	.557	.964
	N	144	144	144	144	144	144	144
Extrinsic Motivation Introjected	Correlation Coefficient	-.001	.013	.053	.007	-.076	.001	-.059
	Sig. (2-tailed)	.993	.847	.442	.916	.265	.985	.393
	N	144	144	144	144	144	144	144
Extrinsic Motivation External Regulation	Correlation Coefficient	.170*	-.003	.083	.053	.033	.003	-.038
	Sig. (2-tailed)	.011	.967	.219	.426	.623	.969	.577
	N	144	144	144	144	144	144	144
Amotivation	Correlation Coefficient	-	-.077	-.082	-.127	-.039	.090	-.051
	Sig. (2-tailed)	.074.278	.252	.233	.063	.569	.199	.462
	N	144	144	144	144	144	144	144

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

In consonance with social regard for learning, there were no significant relationship with the subset intrinsic motivation – know, intrinsic motivation – toward accomplishment, intrinsic motivation – to experience stimulation, extrinsic motivation – identified, extrinsic motivation – introjected and amotivation

albeit there was significant relationship with extrinsic motivation – external regulation of the student-respondents with a computed value of .170 and significant at .011 level.

The study found that ALS teachers' social concern for learning motivated ALS

students. Teachers that are positive and successful role models for their students encourage them to join the program. The ALS teacher's capacity to support learning for various learners has also been demonstrated to positively affect ALS learner-respondents' intrinsic motivation-to-know and extrinsic motivation-identified. The teacher's ability to recognize and respect individual differences and devise effective learning tactics may explain this (Zhao & Mei, 2016).

Teachers' professional characteristics and instructional competence as predictor to achievement motivation of ALS learners. A multiple regression analysis then stepwise which eliminated other variables that were not predictors was calculated to predict the instructional competencies of the ALS learners' achievement motivation based on the ALS teacher-respondents' instructional competencies.

Table 9.
Predictor of Achievement Motivation of ALS Learners

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.399	.532		4.506	.000		
A_Social_regard_for_learning	.295	.142	.172	2.081	.039	1.000	1.000

a. Dependent Variable: SOP4_6_Extrinsic_Motivation_external_regulation

The ALS teachers' positive and powerful role models of education and learning were helpful for the students. Knowledge, theoretical concepts, and social learning techniques were applied to students. Punctuality, appearance, decorum, and respect in the classroom helped ALS students understand and cherish learning. With the ALS's casual framework, extended time with learners, and flexibility, ALS teachers have developed skills to build rapport and connections with noble purposes. ALS instructors may have performed better due to job happiness, job security, and higher remuneration in government schools compared to private schools.

CONCLUSION

This study examined how ALS teachers' professional and instructional competency affects ALS students' achievement motivation. It also examined if instructor competence predicts ALS program motivation. Most ALS teachers were female, married, 26-30 years old, and

Roman Catholic. Nueva Ecija, with the most students, had the most respondents. Most of them have taught ALS for five years or less as Teacher 1.

Most teachers were state college or university graduates with bachelor's degrees in science, math, or English. Most have taught for five years or less and spend 21–30 contact hours a week in their allocated areas. However, 5 trainings/seminars were attended annually.

ALS students' career choices were driven by extrinsic motivation. Extrinsic motivation—believing they can succeed in school—follows. Intrinsic motivation like "to know" only motivated learners when subjects were engaging. Finally, some students are ambivalent or apathetic about joining the ALS, although this rarely stops them. Topic and methodology were ALS teachers' main motivators for higher-order learning. Dimension learning followed the ALS program's venue meetings. Teachers teach and protect classrooms. ALS teachers

said social esteem for learning predicted student motivation. Teachers affect students, school policies, and operations. Age, occupation, ethnicity, and education didn't alter ALS learners' achievement motivation.

Civil status was found to have no significant relationship with Intrinsic Motivation – To Experience Stimulation, Extrinsic Motivation – External Regulation and Amotivation but significantly correlated with Intrinsic. In connection to the Teacher's professional characteristics, the teachers' highest educational attainment, school graduated, the number of years of teaching experience and their number of trainings and seminars attended in a year had no significant relationship with the learner's achievement motivation.

The number of contact teaching hours a week by ALS teachers was strongly correlated with the learners' intrinsic motivation - Towards Accomplishment, but not with their intrinsic motivation – To Know, Experience Stimulation, Identified, Introjected, External Regulation, or Amotivation. Finally, ALS teacher-respondents' social esteem for learning predicted extrinsic motivation—external regulation of the ALS learner. Other variables didn't predict motivation.

RECOMMENDATIONS

The Department of Education must ensure that "no child is left behind," which meets the constitutional right of every citizen to quality education regardless of age, religion, ethnicity, etc. This study may help the department strengthen policies. These include motivation-building, positive attitude reinforcement, and building on present resources, curriculum, or learning strands. Regular seminars and trainings can teach ALS teachers creativity and

innovation. These innovations can help students learn profound, relevant, contemporary, and life-related knowledge with positivism and soft skills. Superintendents and ALS education experts may lead. ALS teachers can build a Personal and Professional Development Program that considers instructional competencies and learners. This program will allow teachers innovate and employ a course-like format, ALS students must choose life goals in seminars, not only pass the Acceleration and Equivalency Test (A&E Test). The current ALS curriculum may focus more on knowledge transfer promoting behaviors like having a healthy lifestyle or an active mind.

References

1. Atilano, E. B., Desipeda, C. J., Domingo, Z. J., Garbin, S. N., & Omanito, R. A. (2016). Factors influencing the dropout rate in Alternative Learning System Accreditation and Equivalency Program. *The Online Journal of New Horizons in Education*, 6(4), 99-109.
2. Banerjee, P. A. (2016). A systematic review of factors linked to poor academic performance of disadvantaged students in science and maths in schools. *Cogent Education*, 3(1), 1178441.
3. Broadbent, J., & Poon, W. L. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, 27, 1-13.
4. Carnoy, M., & Chisholm, L. (2015). Towards understanding student academic performance in South Africa: a pilot study of grade 6 mathematics lessons in Gauteng province.

5. De Boer, H., Donker, A. S., & van der Werf, M. P. (2014). Effects of the Attributes of Educational Interventions on Students' Academic Performance. *Review of Educational Research*, 84(4), 509–545. doi:10.3102/0034654314540006
6. Deiorio, N. M., Carney, P. A., Kahl, L. E., Bonura, E. M., & Juve, A. M. (2016). Coaching: a new model for academic and career achievement. *Medical education online*, 21(1), 33480.
7. Egalite, A. J., Kisida, B., & Winters, M. A. (2015). Representation in the classroom: The effect of own-race teachers on student achievement. *Economics of Education Review*, 45, 44–52. doi:10.1016/j.econedurev.2015.01.007
8. Gardner, R. C. (2010). *Motivation and second language acquisition: The socio-educational model* (Vol. 10). Peter Lang,
9. Good, T. L. (2014). What do we know about how teachers influence student performance on standardized tests: And why do we know so little about other student outcomes. *Teachers College Record*, 116(1), 1-41.
10. Hrabowski, F. A., & Sanders, M. G. (2015). Increasing racial diversity in the teacher workforce: One university's approach. <http://hdl.handle.net/10919/84031>
11. Jez, S. J., & Wassmer, R. W. (2015). The Impact of Learning Time on Academic Achievement. *Education and Urban Society*, 47(3), 284–306. doi:10.1177/0013124513495275
12. Kraft, M. A., Blazar, D., & Hogan, D. (2018). The Effect of Teacher Coaching on Instruction and Achievement: A Meta-Analysis of the Causal Evidence. *Review of Educational Research*, 88(4), 547–588. doi:10.3102/0034654318759268
13. Kraft, M. A., Marinell, W. H., & Shen-Wei Yee, D. (2016). School Organizational Contexts, Teacher Turnover, and Student Achievement. *American Educational Research Journal*, 53(5), 1411–1449. doi:10.3102/0002831216667478
14. Korpershoek, H., Harms, T., de Boer, H., van Kuijk, M., & Doolaard, S. (2016). A Meta-Analysis of the Effects of Classroom Management Strategies and Classroom Management Programs on Students' Academic, Behavioral, Emotional, and Motivational Outcomes. *Review of Educational Research*, 86(3), 643–680. doi:10.3102/0034654315626799
15. McGrath, K. F., & Van Bergen, P. (2015). Who, when, why and to what end? Students at risk of negative student-teacher relationships and their outcomes. *Educational Research Review*, 14, 1-17.
16. Mellard, D. F., Krieshok, T., Fall, E., & Woods, K. (2013). Dispositional factors affecting motivation during learning in adult basic and secondary education programs. *Reading and writing*, 26(4), 515-538. <https://doi.org/10.1007/s11145-012-9413-4>
17. Midgley, C., Middleton, M. J., Gheen, M. H., & Kumar, R. (2002). Stage-environment fit revisited: A goal theory approach to examining school transitions. *Goals, goal structures, and patterns of adaptive learning*, 109-142.

18. Njoroge, P. M., & Nyabuto, A. N. (2014). Discipline as a Factor in Academic Performance in Kenya. *Journal of Educational and Social Research*. doi:10.5901/jesr.2014.v4n1p289
19. Rashid, T., & Asghar, H. M. (2016). Technology use, self-directed learning, student engagement and academic performance: Examining the interrelations. *Computers in Human Behavior*, 63, 604–612. doi:10.1016/j.chb.2016.05.084
20. Sogunro, O. A. (2015). Motivating factors for adult learners in higher education. *International Journal of Higher Education*, 4(1), 22-37.
21. Stephens, N. M., Hamedani, M. G., & Destin, M. (2014). Closing the Social-Class Achievement Gap. *Psychological Science*, 25(4), 943–953. doi:10.1177/0956797613518349
22. Tindowen, D. J. C., Bassig, J. M., & Cagurangan, J. A. (2017). Twenty-First-Century skills of alternative learning system learners. *SAGE Open*, 7(3), 2158244017726116.
23. Wigfield, A., & Eccles, J. S. (2000). Expectancy–Value Theory of Achievement Motivation. *Contemporary Educational Psychology*, 25(1), 68–81. doi:10.1006/ceps.1999.1015
24. Yasmin, D. (2013). Application of the classification tree model in predicting learner dropout behaviour in open and distance learning. *Distance Education*, 34(2), 218-231. <https://doi.org/10.1080/01587919.2013.793642>
25. Zhao, C., & Mei, Z. (2016). A Case Study of American and Chinese College Students' Motivation Differences in Online Learning Environment. *Journal of Education and Learning*, 5(4), 104. doi:10.5539/jel.v5n4p104

Waste Ethylene Vinyl Acetate as a Bonding Enhancer for Bituminous Asphalt Concrete

¹ROBERT G. RABAGO, ²ROLANDO A. DUQUEZ, ³MILDRED A. RAMOS, ⁴ELSIE C. PILAR, ⁵FLORENCE D. GANIR, and ⁶JENNIFER DEL AMEN

¹Chief Material Maintenance, DPWH, Ilocos Norte

²Professor, Northwestern University, Laoag City

³Professor, Northwestern University, Laoag City

⁴Professor, Northwestern University, Laoag City

⁵Dean, Northwestern University, Laoag City

⁶Professor, Northwestern University, Laoag City

ABSTRACT

Introduction: With improved access to transportation, roads play a vital role today. As a result, this subfield of Civil Engineering is crucial to the success of the industry, as improved transportation links directly to increased GDP. Asphalt concrete is widely used as a road paving material today. Many people choose to drive on asphalt roads because of the low maintenance costs and high levels of comfort they provide. Road users aren't the only ones who gain from asphalt's use in road building and maintenance.

Methods: This study determined the optimum mix design of waste EVA mixed bitumen that can be used in the overlay. This study is an experimental type of research that focuses on physical property and mechanical property test. It was done with a systematic process in gathering and measuring information on the variables were established to attained optimum mix design waste EVA mixed bitumen as a bonding enhancer for bituminous asphalt concrete mixed and conducted at the laboratory of DPWH-Ilocos Norte of 1st District Engineering Office, Laoag City, Ilocos Norte.

Results: Generally, findings of this study among the seven mixtures, mixtures A, B, and C are *acceptable* with regards to optimum mixed design of waste EVA mixed with bitumen for overlay on physical properties and mechanical properties based on the ideal values. It is considered *acceptable* since it is within the established ranges based on ASTM requirements be used as mix design of waste EVA mixed bitumen for overlay.

Conclusions: Bitumen's softening point met standards. However, the binder has poorer penetration and higher softening values, causing some mixes to fail the standard. The ASTM Standard Specification Test showed that waste EVA with asphalt cement met the minimum stability and flow requirements.

Keywords: Waste Eva, Experimental Design, Bitumen, Physical Properties, Mechanical Properties

INTRODUCTION

The importance of roads in modern society can't be overstated as they provide improved mobility for people, goods, and services (Berg & Ihlstrom, 2019). This makes the study of road construction and maintenance a crucial aspect of Civil Engineering. One of the most used paving materials for roads is asphalt concrete, which offers cost-effectiveness and comfort to road users. Asphalt concrete is made up of aggregates, binder, and filler, and can be used in the construction and maintenance of roads, parking lots, and even play and sports areas (Lima et al., 2020). The aggregates used in the mixture can be crushed rock, sand, gravel, or slag, and the binder is typically bitumen (Nanea, 2021).

Bitumen is the cementitious material that can be found in different forms, such as rock asphalt, natural bitumen, tar and bitumen a byproduct of oil. According to EAPA (2015), the average amount of bitumen used in asphalt is 5% by weight. Today the world's demand for bitumen accounts for more than 100 million tons per year (Loureiro et al., 2020). The high demand has led to the rapid decrease on the supply for resources used in production of bitumen. In order to cope up with the demand, manufacturers use recyclable materials like tires and PVCs as a partial replacement for bituminous binders.

Porto et al., (2019) suggested that the addition of natural or synthetic polymers to bitumen can enhance its properties. Plastic resins, the main base of plastics, are processed and transformed to fit specific needs. One of these types is Ethylene Vinyl Acetate or known EVA. According to UPC (United Plastic Components), this copolymer resin can be used in adhesives, sealants, and coatings

(Marques et al., 2020). This flexible porous plastic material also has good barrier properties, low-temperature toughness, stress crack resistance, hot-melt adhesive waterproof properties, and resistance to ultraviolet radiation (Szlachetka et al., 2021).

In addition, according to the World Bank (2021), the Philippines is the 3rd top source of plastic leaking into oceans in the world, generating 2.7 million metric tons of plastic garbage each year, 521 thousand tons of which end up in the ocean and by recycling polymers like the EVA, wastes in the environment can be reduced.

The use of plastic materials has been growing all over the world in packing, automotive and industrial applications (Dybka-Stepien et al., 2021). This results in a great generation of urban and industrial waste that can be stored or eliminated. Likewise, one method of eliminating plastics is done by incineration, however, as the production of plastics involves the use of potentially harmful chemicals, the ashes produced may not always be acceptable in a landfill because of their potentiality to cause groundwater and soil pollution (Iravanian & Ravari, 2020).

In addition, waste ethylene vinyl acetate (EVAs) utilized by the footwear industries cannot be melted through direct heat because of its molecular chains and hence another recycling process is needed. Currently, 17 billion pairs of shoes are produced worldwide every year, and this creates an enormous amount of post-consumer (end-of-life) shoe waste that is currently being disposed of in landfill sites around the world (Perez & Trejo, 2022). Further, 190,400 tons of EVA waste are generating worldwide every year needing a large surface for placement and storage and

generates great costs of management due to its long biodegradation (Folino et al., 2020).

With these arguments, this research study was intended to determine the physical and mechanical properties of waste EVA. The researcher has conducted series of mixtures of bituminous asphalt and waste EVA. Hence, to come-up with an optimum mix design of waste EVA mixed as bonding enhancer for asphalt concrete with bitumen that will be used to overlay into road pavement. This will benefit the government in terms minimizing irresponsible discharges of plastic waste.

METHODOLOGY

Research Design. This research is an experimental type of study that focused on the physical property test and mechanical property test evaluating the performance of waste EVA as a bonding enhancer for bituminous asphalt concrete mixed. The purpose of the experimental research is to discover the best material to be used for mixing asphalt for road construction (Cristea et al., 2018).

Data Gathering Procedure. Data collection involves laboratory experiments and testing. First, the study used natural aggregates from a construction firm and supply stockpile yard and waste EVA from surrounding residences, rubbish yards, vehicle upholstery shops, and shoe-repair shops in Ilocos Norte. Aggregates were proportioned according to Grading A of Item 310, 2004 DPWH Standard Specifications for highways, bridges, and airports. Aggregates were cleaned with flowing water during preparation. DPWH Grade A sieving and ASTM aggregate weighing were done. Third, Waste EVA preparation and cutting. Hand-cutting waste

EVA. melt EVA faster. The DPWH 1st District Office Laboratory melted waste EVA in an oven at 90oC to 120oC (Crawford, R.J. 2002). Finally, the study's mix design used weight percentage as proportion.

Procedures During the Experiments. Before mixing with asphalt cement, sample aggregates were heated to 171–191°C. Bitumen was heated to the required temperature for mixing waste EVA and bitumen. Waste EVA was added to bitumen at 177 °C and swirled until homogenous. After reaching temperature, combine aggregates and bitumen with waste EVA. Hot asphalt combined with leftover EVA was promptly poured in preheated molding cylinder. The molding cylinder was filled with half the mixture and preheated plungers. To extract the sample, the molds and plungers were cleaned and oiled.

With the bottom plunger in position and the molding cylinder supported momentarily on the two steel bars, the mixture was tamped twenty-five times in a preheated spatula, fifteen times to reduce honeycomb and ten times to compact. The rest of the mixture was promptly placed to the molding cylinder and tamped. The sample was compressed with 75 Marshall Hammer blows because it was meant for heavy traffic (Ahmed et al., 2014). Turned over and repeated after compression. To determine water weight, samples were immersed in water and weighed again. After drying, the samples were weighed again to establish their saturated dry unit weight.

Testing of Samples. Penetration test was conducted to determine the consistency of the bitumen based on ASTM D5 – Standard Test Method for the Penetration of Bituminous Materials. Specific Gravity Test was conducted to determine the specific gravity of the asphalt cement with the different percentages of waste EVA based on ASTM D1188 – Test Method for Bulk Specific Gravity and Density of Bituminous Mixtures. Moreover, a test was conducted to determine the Softening Point and Melting Point of the bitumen based on ASTM D36 – Test Method for Softening Point of Bitumen (Ring and Ball Apparatus).

RESULTS AND DISCUSSIONS

After obtaining data and information from the experiments in this study, analysis and evaluation of data were performed.

Physical Properties of Waste Ethylene Vinyl Acetate. This section of the research study presents the physical properties of waste Ethylene Vinyl Acetate (EVA) mixed with bitumen which is presented in Table 1. Penetration test is used to evaluate the consistency of bitumen. It is used as a measure to the suitability of bitumen for use under different climatic conditions and various types of constructions.

Table 1.
Physical Properties of Waste EVA Mixed with Bitumen

Physical Properties	Mixture	Value	Descriptive Interpretation	Established Standard
Consistency (Penetration Test) Results (mm)	A	65.17	Passed	60-70
	B	62.50	Passed	
	C	61.17	Passed	
	D	54.67	Failed	
	E	54.67	Failed	
	F	50.67	Failed	
	G	48.17	Failed	
Melting Point (°C)	A	49.33	Passed	49-56
	B	49.90	Passed	
	C	50.17	Passed	
	D	53.17	Passed	
	E	52.67	Passed	
	F	52.67	Passed	
	G	52.33	Passed	
Specific Gravity	A	1.025	Passed	0.97-1.02

	B	1.010	Passed	
	C	1.004	Passed	
	D	0.971	Passed	
	E	0.965	Failed	
	F	0.932	Failed	
	G	0.919	Failed	
Viscosity (Softening Point) (°C)	A	49.50	Passed	49-56
	B	49.40	Passed	
	C	50.80	Passed	
	D	51.90	Passed	
	E	53.65	Passed	
	F	54.80	Passed	
	G	55.30	Passed	

Legend:

Penetration Test Result	60-70	Passed
Melting Point	49-56	Passed
Specific Gravity	0.97-1.02	Passed
Viscosity	49-56	Passed

Table 1 shows the result of the penetration test of the different proportion of bitumen with waste EVA. For a 60/70 grade bitumen penetration value means is in the range 60 to 70.

The data shows that results for mixture A, mixture B, and mixture C have the penetration values of 65.17 mm and 62.50 mm and 61.17 mm, respectively which passed the minimum required penetration value. While mixture D, mixture E, mixture F and mixture G attained 54.67 mm, 54.17 mm, 50.67 and 48.17 mm respectively which didn't meet the required value for penetration test. The results also show that as the percentage of waste EVA increases, the penetration value decreases. It confirms the study of Sadeque and Patil (2014) that there is a general trend of decreasing penetration value with increase in polymer concentration in bitumen.

According to Rahman et al., (2019), **Bitumen penetration grade 60/70** means the penetration value is in the range 60 to 70 at standard test conditions which is commonly used as a Paving Grade. **Bitumen 60/70** is suitable for road construction and for the asphalt pavements with superior properties. This type of bitumen is used in the manufacture of hot mix asphalt for bases, wearing courses and is mainly used in roads in mild regions.

EVA has a very strong structure-forming influence on the bitumen. Penetration value changes most rapidly at 25 °C, which means the higher the concentration of copolymer and the content of the ester groups, the lesser the depth of a binder needle penetration. The result of the study of Nizamuddin et al., (2021) proved that EVA modified binder gives lower penetration value compared to neat bitumen. It also gives higher softening point value, and higher viscosity. Effect of Aging

on EVA modified binder is within permissible limits.

Melting Point Test Results.

Melting point test is used to determine the temperature of bitumen where all the crystallinity in the mixture and films are destroyed (Ma et al., 2016). Melting point is highly dependent on purity, it can also be used for evaluating the quality of substances. After conducting the melting point test on a 60/70 graded bitumen with different percentages of waste EVA, all mixtures are within the required range.

Hence, softening point is useful in the classification of bitumen's, as one element in establishing the uniformity of shipments or sources of supply, and is indicative of the tendency of the material to flow at elevated temperatures encountered in service. Softening point is determined by ring and ball apparatus.

Specific Gravity Test (Specific Gravity) Results. The specific gravity of a bitumen binder is a fundamental property frequently required as an aid in classifying binders for use in paving jobs and used in identifying the source of bitumen binder. Bitumen binder has specific gravity in the range of 0.97 to 1.02 based from ASTM D70-97.

Based on table 4, the result shows that mixture A, mixture B, mixture C and mixture D with the values of 1.025, 1.010, 1.004, and 0.971 respectively passed the minimum required specific gravity for a bitumen binder. However, mixture E, mixture F and mixture G failed to the minimum required range of specific gravity for a bitumen binder. The table confirms that the specific gravity value decreases

significantly by modifying bitumen according to Bhargava et al., 2020).

Viscosity (Softening Point) Test Results. Softening test is used to determine the softening point of bitumen. Softening point indicates the temperature at which binders possess the same viscosity. Also, it is useful in the classification of bitumen's as one element in establishing the uniformity, as well as to indicate the tendency of the material to flow at elevated temperatures.

On the viscosity (softening point) test result shows in Table 2. After conducting the softening test on a 60/70 graded bitumen with different percentages of waste EVA, all mixtures are within the required range of softening point. Data results show that as the percent of waste EVA increases, its softening point increases which supports the study of Ahmad and Mahdi (2015).

As stated by Honarmand et al., (2018), the viscous properties of bitumen at high temperature, are improved by adding recycled EVA copolymer in amounts that depend on bitumen penetration grade. Moreover, significant microstructural changes, related to the development of a polymer-rich phase, tend to occur in the bitumen as polymer concentration increased. These changes in microstructure have a significant influence on the flow behavior of the binder and on its in-service performance.

Furthermore, viscoelastic properties of a 60/70 penetration grade bitumen are improved when either a virgin EVA or a recycled EVA copolymer of similar vinyl acetate content are mixed with it. Risk of cracking at low temperatures and rutting at

high temperatures are both reduced. Better viscoelastic features are obtained with the bitumen modified with recycled EVA probably due to the presence of carbon black, which acts like a filler in this material. Stability tests performed combining oscillatory flow and microscopy results disclose that blends with the higher polymer proportion (3%) are susceptible of phase separation after 24 hours of storage at 165 C, but 1% blends are stable for at least four days. A general evaluation of the results indicates that the performance of this bitumen as a binder for road pavement is particularly improved when 1% of recycled EVA or virgin EVA is added (Yan et al., 2020).

Moreover, EVA with a high content of vinyl acetate groups are somewhat inferior by softening temperature and extensibility to the compositions, modified by EVA with a low content of ester groups, because of the greater initial plasticity of the copolymer in the second case. It should be noted that the bitumen, modified by polymers, begin to acquire their properties and as several researchers noted, the standard bitumen test methods do not allow to reflect these changes completely. The rheological properties of bitumen are improved by means of EVA polymer modification. The semi crystalline EVA copolymer provides the modification of bitumen through the crystallization of rigid three-dimensional networks within the bitumen. Conventional penetration,

softening point, ductility and high temperature viscosity tests have demonstrated the increased stiffness (hardness) and improved temperature susceptibility of the EVA PMBs (Bulatovic et al., 2013).

Acceptability of Physical Properties to the Established Standard

Table 3 reflects the results of mixtures as to physical properties. As a result, there are mixtures which is considered “acceptable” based on the ASTM.

Viscosity (Penetration Test)

Results. As a result, Mixture A, B, and C passed (PTR = 60 – 70mm) while mixture D, E, G and F failed. These indicate the data shows, the higher the percentage of EVA that can be mixed may fail.

Melting Point. As a result, all the mixtures were passed and have meet the standard requirements, 49-56(°C) as to melting point of the pure bitumen that can be used in overlay.

Specific Gravity. On the specific gravity, mixture A, B, C and D are considered passed, which means that they are within the established standard of pure bitumen, 0.97-1.02. On the other hand, mixture E, F and G are failed they have a below the value as to established standard.

Table 3
Acceptable Physical Properties based on ASTM

Mixture	Physical Properties			
	Consistency	Melting Point	Specific Gravity	Viscosity
A	65.17*	49.33*	1.025*	49.40*
B	62.50*	49.90*	1.010*	49.90*

C	61.17*	50.17*	1.004*	50.80*
D	54.67	53.17*	0.971*	51.90*
E	54.17	52.67*	0.965	53.65*
F	50.67	52.67*	0.932	54.80*
G	48.17	52.33*	0.919	55.30*

Legend:

Penetration Test Result	60-70	Passed
Melting Point	49-56	Passed
Specific Gravity	0.97-1.02	Passed
Viscosity	49-56	Passed

* - acceptable mixtures based on ASTM

Viscosity. All mixtures of the study are passed, this shows that they have are within the standard range from 49-56 °C. Hence, with the seven mixtures on different physical properties, the *acceptable* mixtures are mixture A, B, and C, which have attained the established standard.

Mechanical Properties Test on Marshall Stability and Flow Values of Waste EVA Mixed with Bitumen. As regards the mechanical properties test on Marshall Stability and Flow Values of Waste EVA that is being mixed with bitumen shows in Table 6.

Marshall Stability is the peak resistance load obtained during a constant rate of deformation loading sequence. It can also be defined as the load obtained, when the rate of loading increase begins to decrease, such that the curve starts to become horizontal. Flow is the measure of deformation of the specimen at failure and recorded either by the dial gauge or displacement cell attached to the breaking head.

Marshall Stability Test Result.

The Marshall Stability Test Results is reflected in table 4. Results shows the average result of stability in pound force (lbf). All the design mix have passed the minimum stability of 1500 lbf of Marshall Design criteria for heavy traffic. Mixture F achieved the maximum stability which is equal to 2797.25 lbf.

Based on the table, the stability value increases with increasing percentage of waste EVA up to maximum, after which the value decreases. Therefore, it confirms the study of Kumar et al that as the additive content increases, the stability value increases initially, reaches a maximum and then decreases.

Flow Value Test. From Table 4, it shows the average result of flow test on the bituminous binder of different percentages of waste EVA. It also shows that all the design mix with waste EVA met the minimum criteria for the flow value, in which all results are within the lower limit of 8 mm and the upper limit of 16 mm. Mixture F achieved the highest value of flow equal to 11.45 mm.

Table 4.
Mechanical Properties Test-Marshall Stability and Flow Value

Mechanical Properties	Mixture	Value	Remarks	Established Standard
Marshall Stability (lbf)	A	2121.10	Passed	
	B	2249.22	Passed	
	C	2249.22	Passed	
	D	2365.83	Passed	Minimum of 1500
	E	2602.22	Passed	
	F	2797.25	Passed	
	G	2300.18	Passed	
Flow Test Values (mm)	A	8.78	Passed	
	B	8.90	Passed	
	C	9.09	Passed	
	D	9.53	Passed	8-16
	E	9.38	Passed	
	F	11.45	Passed	
	G	10.61	Passed	

Legend:

For Marshall Stability		Flow Test	
Min of 1500 lbf	Passed	8-16	Passed
below 1500 lbf	Failed	below 8	Failed
		above 16	Failed

Acceptability on Mechanical Properties as to Marshall Stability and Flow Value Test to the established standard. Table 5, shows the Mechanical Properties Test-Marshall Stability and Flow Test Value of waste EVA mixed with bitumen and Pure Asphalt Bitumen.

Marshall Stability

As table 5, all the mixtures have attained the value equal to 1500 lbf and even higher in values.

Table 5.
Mechanical Properties and Established Standard

Mixture	Mechanical Properties	
	Marshall Stability	Flow Value Test
A	2121.10*	8.78*
B	2249.22*	8.90*
C	2249.22*	9.09*
D	2365.83*	9.53*
E	2602.22*	9.38*
F	2797.25*	11.45*
G	2300.18*	10.61*

Legend:

For Marshall Stability		Flow Test	
Min of 1500 lbf	Passed	8-16	Passed
below 1500 lbf	Failed	below 8	Failed
		above 16	Failed

* - acceptable mixtures based on ASTM

Marshall flow is a measure of deformation (elastic plus plastic) of the asphalt mix determined during the stability test (ASTM D1559: Standard Test Method for Marshall Stability and Flow of Asphalt Mixtures). As the additive content increases, the stability value increases initially, reaches a maximum and then decreases (Kumar et. al, 2017).

Flow Value Test. All the mixtures have met the standard from 8-16mm on flow test values. Moreover, the flow test is used to measure the workability of high or very high workable concrete, which eventually would exhibit the collapse of slump. It gives an idea about the quality of the concrete with respect to the consistency and cohesiveness. This workability test is quite simple to perform and is the best for the concrete which has a nominal maximum size of aggregate less than 38 mm. Furthermore, all the

mixtures, have met the established standard based on ASTM on mechanical properties particularly in Marshall Stability and Flow Value Test.

Optimum mix design of waste EVA mixed with bitumen for overlay.

The optimum mix design of waste EVA mixed bitumen was used in the overlay. For the optimum mix design of waste EVA mixed with bitumen for overlay is being presented in Table 6. On this table it presents the established standards. It may reflect in the table that there are mixtures who have passed or met the established standard into the other properties like mixtures D, E, F and G have not attained all the established standard in all the properties of physical and mechanical. Hence, as a result, it shows that among the mixtures being used by the researcher mixtures A, B, and C and have attained the established standard.

Table 6
Optimum mix design of waste EVA mixed with bitumen for overlay

Mixture	Physical Properties				Mechanical Properties	
	Consistency	Melting Point	Specific Gravity	Viscosity	Marshall Stability	Flow Value Test
A	65.17*	49.33*	1.025*	49.40*	2121.10*	8.78*
B	62.50*	49.90*	1.010*	49.90*	2249.22*	8.90*
C	61.17*	50.17*	1.004*	50.80*	2249.22*	9.09*
D	54.67	53.17*	0.971*	51.90*	2365.83*	9.53*
E	54.17	52.67*	0.965	53.65*	2602.22*	9.38*
F	50.67	52.67*	0.932	54.80*	2797.25*	11.45*

G	48.17	52.33*	0.919	55.30*	2300.18*	10.61*
---	-------	--------	-------	--------	----------	--------

* - acceptable value based on ASTM

CONCLUSIONS

The results of this study have provided important insights into the physical properties of bitumen and waste EVA when used in combination for road construction. The researcher found that the softening point of the bitumen conformed to standard requirements, but the binder showed lower penetration values and higher softening values which resulted in some mixtures failing to meet the standards. However, the stability and flow value of the waste EVA with asphalt cement met the minimum requirements as specified in the ASTM Standard Specification Test. Based on the results, the researcher identified the optimum mixed design of waste EVA with bitumen, with mixtures A, B, and C being deemed acceptable as they met the established ranges according to the ASTM requirements. These findings provide valuable information for contractors, engineers, and government agencies in their use of waste EVA as a partial replacement of bitumen in asphalt.

RECOMMENDATIONS

Based on the results of the study, the following recommendations have been formulated: (1) The utilization of waste EVA as a substitute for bitumen in asphalt construction and maintenance can be a cost-effective and environmentally friendly alternative, and its use can be beneficial to contractors, engineers, and government agencies. This conclusion highlights the potential of waste EVA as a solution for reducing waste in the community. (2) Further research should be conducted on

different waste materials to determine the best mixture for overlay. (3) Institutional extension programs should provide education and awareness on the proper utilization of waste materials to support solid waste management programs.

References

1. Ahmad, M., & Mahdi, F. (2015). Characterization of bitumen mixed with plastic waste. *International Journal of Transportation Engineering*, 85-91. Retrieved from http://www.ijte.ir/article_13834_48cb0adc99c7dd7ec8d198ef876ecc8c.pdf
2. Ahmed, K., Irfan, M., Ahmed, S., Ahmed, A., & Khattak, A. (2014). Experimental investigation of strength and stiffness characteristics of hot mix asphalt (HMA) . *Procedia Engineering*, 155-160.
3. Berg, J., & Ihlstrom, J. (2019). The importance of public transport for mobility and everyday activities among rural residents. *Social sciences*, 1-13.
4. Bhargava, N., Siddagangaiah, A., & Rynthiang, T. (2020). State of the art review on design and performance of microsurfacing. *Roads and materials and pavement design*, 2091-2125.
5. Bulatovic, V., Rek, V., & Markovic, K. (2013). Effect of polymer modifiers on the properties of bitumen. *Journal of elastomers & plastics*, 1-12.
6. Cristea, G., Constantinescu, D., Andreescu, C., & Iozsa, M. (2018). A study about how to use experimental design to increase the efficiency in a research project .

- International Conference on Advanced Concepts in Mechanical Engineering*, 1-8.
7. Dybka-Stepien, K., Antolak, H., Kmiotek, M., Piechota, D., & Kozirog, A. (2021). Disposable food packaging and serving materials—trends and biodegradability. *Polymers*, 1-38.
 8. Folino, A., Karageorgiou, A., Calabro, S., & Komilis, D. (2020). Biodegradation of wasted bioplastics in natural and industrial environments: A review. *Sustainability*, 1-37.
 9. Honarmand, M., Tanzadeh, J., & Beiranvand, M. (2018). Bitumen and its modifier for use in pavement engineering. *Sustainable construction and building materials*, 1-12.
 10. Iravanian, A., & Ravari, S. (2020). Types of contamination in landfills and effects on the environment: A review study. *Earth and environment science*, 1-9.
 11. Lima, M., Hajibabaei, M., Hesarkazzazi, S., Sitzenfrei, R., Buttgerit, A., Queiroz, C., . . . Gschosser, F. (2020). Environmental potentials of asphalt materials applied to urban roads: Case study of the City of Münster. *Sustainability*, 1-18.
 12. Loureiro, C., Moura, C., Rodriguez, M., Martinho, F., Silva, H., & Oliveira, J. (2020). Steel slag and recycled concrete aggregates: Replacing quarries to supply sustainable materials for the asphalt paving Industry. *Sustainability*, 1-31.
 13. Ma, B., Zhou, X., Liu, J., You, Z., Wei, K., & Huang, X. (2016). Determination of specific heat capacity on composite shape-stabilized phase change materials and asphalt mixtures by heat exchange system. *Materials*, 1-15.
 14. Marques, A., Mocanu, A., Tomic, N., Balos, S., Stammen, E., Lundevall, A., . . . Gunther, R. (2020). Review on Adhesives and Surface Treatments for Structural Applications: Recent Developments on Sustainability and Implementation for Metal and Composite Substrates. *Materials*, 1-43.
 15. Nanea, D. R. (2021). Asphalt mixtures for bituminous coatings with BF slag filler. *Computational Civil Engineering*, 1-7.
 16. Nizamuddin, S., Boom, Y., & Giustozzi, F. (2021). Sustainable Polymers from recycled waste plastics and their virgin counterparts as bitumen modifiers: A comprehensive review. *Polymers*, 1-12.
 17. Perez, N. H., & Trejo, H. (2022). Evaluation of sustainability & materials among major footwear brands. *Research through Inclusive Opportunities*, 1-23.
 18. Porto, M., Caputo, P., Loise, V., Eskandarsefat, S., Teltayev, B., & Rossi, C. (2019). Bitumen and bitumen modification: A review on latest advances. *Applied sciences*, 1-35.
 19. Rahman, M., Chowdhury, S., Abdullah, M., Sarkar, A., Sayeed, S., & Real, M. M. (2019). A comparative study on properties of different grade bitumen used in the transportation projects in and around Dhaka City. *Trends in civil engineering and its architecture*, 1-7.
 20. Szlachetka, O., Dobrev, J., Baryla, A., & Dohojda, M. (2021). Low-

- density polyethylene (LDPE) building films – Tensile properties and surface morphology. *Journal of Building Engineering*, 1-12.
21. World Bank. (2021). *Market study for the Philippines: Plastics circulatory opportunities and barriers*. Washington: Marine Plastics Series.
22. Yan, K., Chen, J., You, L., & Tian, S. (2020). Characteristics of compound asphalt modified by waste tire rubber (WTR) and ethylene vinyl acetate (EVA): Conventional, rheological, and microstructural properties. *Journal of Cleaner Production*, 1-13.

Cultural Perinatal Beliefs and Practices of ISNAG Mothers

¹MICHELLE M. ANDRES, ²ROSELI T. AURELIO, ³CHARLIEMANE C. BULLALAYAO, and ⁴WILJOHN S. DELA CRUZ

¹Nurse 1, Tanglagan Lying-in, Calanasan, Apayao

²Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

³Dean, College of Allied Health Sciences, Northwestern University

⁴Assistant Professor, College of Allied Health Sciences, Northwestern University

ABSTRACT

Introduction: While being pregnant and giving birth are universal experiences, the meanings each culture assigns to these processes may vary greatly. But all expectant mothers are encouraged to take the utmost care during pregnancy to reduce risks and increase the probability of a safe and healthy birth. The purpose of this research was to better understand Isnag mothers' perspectives and experiences with pregnancy and childbirth. Eleazar, Naguilian, Sabangan, Poblacion, Ferdinand, Ninoy Aquino, Kabugawan, Namaltugan, Tubungan, and Butao are only few of the Barangays of Calanasan who sent representatives. The consequences of Isnag mothers' perinatal beliefs and behaviors on public maternal health were the subject of this research.

Methods: Ethnographic research, which falls under the category of qualitative technique, was used to investigate, and comprehend their way of life for this study. In addition, throughout the fieldwork, information regarding their cultural beliefs and practices was supplied by the informants themselves via one-on-one interviews in their own homes. To verify the validity and reliability of the semi-structured interviews, experts were requested to evaluate it which showed a validity score of 4.78. Ethnographic analysis is iterative and unstructured. Data analysis involves description, analysis, and interpretation.

Results: The findings of this research are grounded on four main areas: (1) food-related beliefs and restrictions; (2) perinatal norms and taboos; (3) behavioral aspects; and (4) social support network.

Conclusions: Mothers in the Isnag community are known for their superstition, but they also engage in several rituals and beliefs that are consistent with health promotion strategies and are so seen favorably. To better inform and educate Isnag mothers about the significance of their current practices and to expound on those that are regarded as good from the perspective of healthcare professionals, health information and education on perinatal practices are activities that have been identified as needing to be implemented.

Keywords: Perinatal Beliefs and Practices, Culture, Isnag, Beliefs, Taboos, Ethnography, Thematic Analysis

INTRODUCTION

Pregnancy and labor are natural occurrences, yet the way people perceive it drastically changes according to their varied cultural beliefs and traditions. But typically, all pregnant moms are urged to exercise uttermost care throughout pregnancy to avoid hazards during that time and to enhance the likelihood of a safe and healthy delivery. Maternal mortality, on the other hand, has grown considerably over the last decade, especially in less industrialized and developing nations. The lack of access to effective health care has been connected to maternal mortality in faraway regions. Poverty, distance to facilities, lack of knowledge, poor quality services, and, most significantly, beliefs and traditions are among the key causes stopping women from accessing and seeking care throughout pregnancy and childbirth (United Nations, 2015).

The Isnag are dispersed throughout the Philippines as the indigenous occupants of the archipelago (Carling, 2001). Changes brought about by colonialism and increased civilization led to the renaming of their community from a village to a barrio or barangay. The Isnag are nomads who subsist on a hunter-gatherer diet. Traditionally, men would go out into the highlands to hunt wild game, while women would forage for edible plants. Over time, though, people began to adopt new ways of life. Long before the arrival of other cultures, they had a wealth of indigenous knowledge and customs that kept their societies thriving. Their health care needs are now influenced by a variety of external circumstances.

Moreover, the Calanasan Isnags, like any other ethnic group, are characterized by their traditional beliefs and customs concerning pregnancy, delivery,

and post-natal care. Even in these contemporary times, most Isnag women think it is important to follow traditional pregnancy and delivery customs. Because these views and practices have been passed down from generation to generation, elders of this ethnic group persuaded everyone that sticking to these beliefs assured the health and well-being of the mother and child from conception to birth. This research evaluated the significant cultural perinatal beliefs and practices of Isnags in the current times, greatly to the purpose of promoting Maternal Health with great concern of this ethnic minority.

Perinatal practices refer to the actions and interventions taken during pregnancy, labor, and delivery, as well as postpartum and neonatal care. In the Philippines, the indigenous Isnag community has their own unique cultural beliefs and practices related to perinatal care. However, there is limited research available on the specific perinatal practices of Isnag mothers, particularly regarding their use of traditional healers and remedies, dietary practices, and birthing beliefs.

One potential research gap in this area is the lack of comprehensive studies that examine the perinatal practices of Isnag mothers in their entirety. Most studies focus on specific aspects of perinatal care, such as maternal nutrition or the use of traditional remedies but fail to consider the interconnectedness of these practices and how they work together to shape the overall perinatal experience for Isnag mothers.

Another gap in the research is the limited consideration of the cultural context and beliefs that inform Isnag perinatal practices. While there is some recognition of the importance of traditional healers and remedies, there is limited understanding of

the specific beliefs and cultural values that influence the use of these practices, and how they may vary between different regions or communities within the Isnag population.

Additionally, there is a lack of investigation into the impact of perinatal practices on maternal and infant health outcomes. While some studies have looked at the use of traditional remedies and their potential effects, there is limited research on the overall impact of Isnag perinatal practices on maternal and neonatal health, and how these practices may affect the utilization of modern health services.

In conclusion, there is a need for more comprehensive and culturally sensitive research on the perinatal practices of Isnag mothers in the Philippines. Such research should aim to better understand the beliefs and cultural context that inform these practices, as well as their potential impact on maternal and neonatal health outcomes. This will enable healthcare providers to better support and care for Isnag mothers and their infants, and to ensure that their unique cultural needs are respected and honored.

RESEARCH QUESTION

The study sought to understand the cultural perinatal beliefs and practices of Isnags mothers in relation to the daily lives as community people. Specifically, the study sought answers to the following questions: (1) What are the beliefs and practices of Isnag mothers with regards to nutrition? (2) What are the perinatal beliefs and practices of Isnag mothers with regards to norms and taboos? (3) What are the perinatal beliefs and practices of Isnag mothers with regards to behavioral aspects? and (4) What are the perinatal beliefs and

practices of Isnag mothers with regards to social support systems?

METHODOLOGY

Research Design. The study used a qualitative research approach for the researcher to be able to elucidate the Isnag culture relating to their age-old perinatal practices being practiced up until the present times. Specifically, this study is ethnographic research classified under the qualitative approach which observed, analyzed and understand their culture. The study provided direct description of the cultural perinatal beliefs and practices of Isnags in Calanasan. The cultural parameter among the informants under investigation are their shared experiences on the existing cultural practices in their locality. As such, data about the cultural perinatal beliefs and practices were presented as experienced by the informants themselves.

Participants. There were 15 participants of the study which included Isnag women, 40 years old and above, with childbearing experience.

Data Collection. Primarily, the data were collected during fieldwork by interviewing the selected informants about the topic being studied. Ethical principles were strictly adhered to, specifically anonymity, confidentiality, and right to withdraw.

Data Analysis. Ethnographic analysis is iterative and unstructured. Data analysis involves description, analysis, and interpretation (Reeves et al., 2013). Data is described as fact when described. Analysis examines correlations, variables, and links across data points. Moreover, data interpretation adds meaning beyond data points and analysis. These three components may be difficult to distinguish,

but they can help ethnographers and readers comprehend additional data collecting and rhetorical tactics utilized in writing. Ethnography's distinctive fieldnotes approach links data gathering and analysis via iterative reporting and interpretation of results from all methodologies used (Mann et al., 2022). Fieldnotes record participant observation observations, tales, descriptions, and interpretations.

RESULTS

Before the emergence of modern perinatal care in the Isnag community, there are already existing traditional beliefs and practices on perinatal care which they believe, if followed religiously, it would provide optimum care for a mother and a child. In this study four conceptual themes unraveled from respondents. Four (4) major themes emerged: Nutrition, Perinatal Norms and Taboos, Behavioral Aspects, Social Support System.

Table 1 shows the themes and the significant quotations from the narratives of the key informants.

Major Themes	Significant Quotations
Nutrition	<i>"We eat a healthy food consisting of native vegetables to enrich our bodies with nutrients we need for our daily needs at work and at home."</i> KI03
	<i>"In our community, our family drinks water only, we have no alcoholic drinks, because that is forbidden in our culture."</i> KI11
	<i>"We have to offer food to our departed loved ones, which is needed to have a better harvest and well-being."</i> KI05
Perinatal Norms and Taboos	<i>"We have to take care of the pregnant women, especially our mothers, because they know what to do, we don't have doctors here, so we just use our practices towards the pregnancy and delivery."</i> K09
	<i>"When I was pregnant, they have me a lot of fruit and vegetables juices, we have so many rituals, we have to drink from the blood of animals for a better health of the baby."</i> KI01
Behavioral Aspects	<i>"As Isnags, we have a culture towards respect and love for others, whoever they are, that is a culture that we value, and that elderlies are the supreme leader among ourselves."</i> K08
	<i>"There are some women who are irresponsible with regards to their parents and the people in the community."</i> KI07
Social Support System	<i>"Our husbands are very caring, and we respect and support them, I for one has a husband and I follow him always because he is the head of the family, and we have to provide unconditional support."</i> K06
	<i>"Our relatives are very helpful and support us during our pregnancy and childbirth, by serving the family and their needs."</i> KI07

“I have obtained the services of the hilot or partera because they have the experienced with regards to the delivery of the baby. They are very skillful and intelligent.” KI03

Nutrition. This theme was described in terms of food intake, fluid intake, and superstitions on food.

Perinatal Norms and Taboos. Under this theme, it was described by the key informants as activities during pregnancy, and unacceptable delivery setting.

Behavioral Aspects. For this theme, it was presented as social etiquette, state of being bold, and unacceptable behavior.

Social Support System. Finally, for this theme, the social support system includes husband/life partner, relatives/other loved ones, and hilot/partera.

DISCUSSION

Nutrition. The Isnag tribe, also known as Isnag, is an indigenous group located in the northern region of the Philippines. They have a rich cultural heritage and a unique set of traditions, including their dietary practices. The cultural ideas and values of the Isnag people in the Philippines are investigated, along with their culinary traditions. The study of Palaganas et al., (2013) explores the daily lives and cultural traditions of Isnag women through the lens of the food they eat.

The Isnag people are primarily subsistence farmers, relying on their crops and livestock for sustenance. They grow a variety of crops, such as rice, corn, cassava, sweet potatoes, and vegetables, which provide them with most of their nutritional needs. They also raise animals, such as chickens, pigs, and cattle, for their meat, eggs, and dairy products. In terms of food

preparation, the Isnag people have a variety of traditional cooking methods that they still practice today. These include boiling, grilling, and roasting. They also use different spices, herbs, and seasonings to enhance the flavor of their dishes.

One of the staple foods of the Isnag tribe is rice, which is usually consumed with various types of meat, fish, and vegetables. Another traditional dish is the "binilot," which is a type of rice dish wrapped in banana leaves. They also make a sweet, sticky rice cake called "kakanin," which is served during special occasions and celebrations.

In general, the Isnag tribe's dietary practices reflect their dependence on locally grown, seasonal crops, as well as their cultural traditions. They have a balanced and nutritious diet that provides them with the necessary vitamins, minerals, and nutrients they need to maintain good health. It's worth mentioning that like many indigenous communities around the world, the Isnag tribe's traditional practices and lifestyle have been impacted by the modern world, including the introduction of processed foods, which may have a negative impact on their health (Chang & Chien, 2018).

Perinatal Norms and Taboos. The Isnag tribe in the Philippines has a set of perinatal norms and taboos that are deeply ingrained in their cultural heritage and play an important role in ensuring the health and well-being of mothers, newborns, and their families. During pregnancy, the Isnag people follow several taboos to ensure a

safe and healthy pregnancy. For example, pregnant women are not allowed to eat certain types of food, such as raw fish, as it is believed to cause complications during delivery. They are also expected to avoid engaging in certain activities, such as heavy lifting or climbing, that may put their health or the health of the fetus at risk. These findings have been supported by the study of (Grey, 2015)

After the birth of a child, there are also several customs and rituals that are followed to ensure the health and well-being of the mother and child. For example, mothers are expected to rest for a period after delivery and avoid certain activities, such as cooking or carrying heavy loads, to allow their bodies to heal. Newborns are also given a special bath, called "*pamalengke*," to help protect them from illness.

In terms of naming, the Isnag people have several customs and beliefs related to naming their children. For example, it is believed that the first name given to a child has a significant impact on their future, so great care is taken in choosing a name. Some names are also chosen based on the circumstances surrounding the birth, such as the time of day or the weather.

In general, the perinatal norms and taboos of the Isnag tribe reflect their strong connection to their cultural heritage and their belief in the importance of preserving the health and well-being of mothers, newborns, and their families. These practices have been passed down from generation to generation and continue to be observed and respected by the Isnag people today.

Behavioral Aspects. The Isnag tribe in the Philippines has a unique set of cultural behaviors and traditions that reflect

their values, beliefs, and way of life. These behaviors are an integral part of the Isnag culture and play a significant role in shaping the relationships, roles, and responsibilities within their community.

One notable behavior of the Isnag people is their hospitality and generosity. They place a high value on hospitality and are known for welcoming guests with open arms and offering them food and shelter. This extends not just to family and friends but also to strangers and visitors to their community.

The Isnag people also have a strong sense of community and family. Family is highly valued, and the members of a household are expected to support each other and work together for the good of the family. They also have a strong sense of interdependence, with each person playing a specific role in the community and contributing to the well-being of the group.

Moreover, in terms of gender roles, the Isnag tribe has a traditional division of labor, with men typically taking on tasks related to hunting, farming, and construction, while women are responsible for household tasks, such as cooking, cleaning, and caring for the children. However, both men and women are expected to contribute to the family and community in whatever way they can. Another important behavior of the Isnag people is their reverence for the natural environment and their use of traditional ecological knowledge in their farming practices. They have a deep understanding of the natural environment and use this knowledge to cultivate their crops and raise their livestock in a sustainable and environmentally friendly manner.

In general, the behaviors of the Isnag tribe reflect their strong cultural

heritage, sense of community, and commitment to preserving their traditional way of life. These behaviors play an important role in shaping their relationships, roles, and responsibilities within their community and contribute to their overall well-being and happiness. Studies have shown that cultural practices and beliefs can play a significant role in shaping one's sense of identity, community, and well-being (e.g., Villani et al., 2019; Swihart et al., 2022). Research has also indicated that maintaining cultural traditions and practices can improve mental health outcomes and enhance resilience in the face of stress or adversity (Ozbay et al., 2007). Moreover, community connectedness and social support have been shown to be key factors in promoting overall health and happiness (Martino et al., 2017). These findings suggest that the behaviors and practices of the Isnag tribe may contribute to their strong cultural identity, social support network, and overall well-being.

There is also literature that explores the importance of cultural values and beliefs in shaping behaviors and their impact on well-being. For example, a study on indigenous communities in the Philippines found that traditional beliefs and practices, such as the importance of community and interdependence, play a significant role in shaping relationships and overall well-being (Balila et al., 2013).

Social Support System. The Isnag tribe in the Philippines has a strong social support system that is built around their close-knit community and family relationships. This support system plays a crucial role in ensuring the health and well-being of individuals and families within the community. One of the key components of the social support system of the Isnag people is the extended family. Family is

highly valued, and family members are expected to support each other in times of need. This can involve providing financial or practical assistance, or simply offering emotional support and companionship.

The concept of social support in communities has been widely studied in the field of psychology and sociology (Hassan et al., 2021). The importance of social support in promoting well-being, coping with stress, and improving health outcomes (Shen & Slater, 2021; Shilpa, 2021) has been well documented in various studies. These studies have found that social support can come in many forms, including emotional, informational, and tangible support (Eslambolchilar et al., 2023). Emotional support involves offering encouragement, empathy, and understanding, while informational support involves providing advice or guidance (Tu & Li, 2022). Tangible support involves providing practical assistance, such as financial help or help with daily tasks. Social support has been found to play a crucial role in promoting resilience and improving outcomes for individuals facing challenges and difficulties in their lives (Wulandhari et al., 2022).

The Isnag community is closely knit and has a strong sense of interdependence, which contributes to their well-being. They work together to ensure the well-being of their community by sharing resources and supporting each other during times of need, such as illness or bereavement. This close-knit community structure has been shown in research to boost resilience and mental health, and foster community membership and interdependence (Li et al., 2021; Suttie, 2017; Cuyppers et al., 2022). As a result, the strong sense of community connectedness among the Isnag people may play a significant role in their health and happiness.

In terms of social support for specific health issues, the Isnag people rely on traditional healers, known as "*manghihilot*," for medical care. These healers use a combination of herbal remedies, massage, and spiritual practices to treat a variety of ailments. They are highly respected and valued members of the community, and their services are widely used and appreciated. Finally, the Isnag people also have a strong cultural identity and a shared sense of belonging to their community. This sense of belonging provides a sense of comfort and security and helps to strengthen their social support network.

Yang (2016) analysis of the physiological processes that may underlie correlations between social support and disease outcomes is relevant here. The link between social support and health outcomes is explored, along with the physiological mechanisms that may underpin it. It talks about the physiological effects of social support, like less stress and enhanced immune function. The findings of the study emphasize the value of social networks in fostering health and well-being, and also provide credence to the idea that social support from a strong sense of community can have a positive impact on an individual's physical and mental well-being.

In conclusion, the social support system of the Isnag tribe in the Philippines is built around close family and community relationships, traditional health practices, and a shared cultural identity. This support system plays a crucial role in ensuring the health and well-being of individuals and families within the community and helps to ensure the survival and preservation of their cultural heritage.

CONCLUSIONS

In conclusion, the perinatal practices of Isnag mothers in the Philippines are rooted in their cultural beliefs and have a significant impact on their health and well-being during pregnancy and delivery. These practices are a combination of traditional methods and scientific facts, and they aim to ensure the health and safety of both the mother and the child. The strong support system within the community and the preservation of moral rectitude during pregnancy are also important aspects of their perinatal beliefs. Despite the availability of modern medical facilities, many of these beliefs and practices continue to be followed by Isnag mothers today, highlighting the importance of preserving cultural heritage and traditions.

References

1. Balila, V., McHenry, J., McHenry, M., Marris, P., & Banal, D. (2013). Indigenous aeta magbukún self-identity, sociopolitical structures, and self-determination at the local level in the Philippines. *Journal of Anthropology*, 1-13.
2. Carling, J. (2001). Indigenous Peoples and the Environment. *Asia Society*, 1-35.
3. Chang, K., & Chien, H. (2018). The impacts of tourism development in rural indigenous destinations: An investigation of the local residents' perception using choice modeling. *Sustainability*, 1-15.
4. Cuypers, I., Ertug, G., Cantwell, J., Zaheer, A., & Kilduff, M. (2022). Making connections: Social networks in international business. *Journal of International Business Studies*, 714-736.

5. Eslambolchilar, P., Stawarz, K., Dias, N., McNarry, M., Crossley, S., Knowles, Z., & MacKintosh, K. (2023). Tangible data visualization of physical activity for children and adolescents: A qualitative study of temporal transition of experiences. *International Journal of Child-Computer Interaction*, 1-12.
6. Grey, E. J. (2015). Cultural beliefs and practices of ethnic Filipinos: An ethnographic study. *Multidisciplinary research journal*, 31-36.
7. Hassan, K., Gyamf, G., Lodge, B., & Solmaz, A. (2021). Bridging the gap between theory and empirical research in evaluative judgment. *Journal of Learning Analytics*, 117-132.
8. Li, F., Mu, W., Li, Y., Ye, L., & Zheng, X. (2021). Effects of sources of social support and resilience on the mental health of different age groups during the COVID-19 pandemic. *BMC Psychiatry*, 1-12.
9. Mann, C., Boyd, M., Davis, H., Beardmore, G., & Smith, K. (2022). An ethnographic evaluation of a speciality training pathway for general practice nursing in the UK. *Nurse Education in Practice*, 1-10.
10. Martino, J., Pegg, J., & Pegg, E. (2017). The Connection Prescription: Using the Power of Social Interactions and the Deep Desire for Connectedness to Empower Health and Wellness. *American Journal of Lifestyle Medicine*, 466-475.
11. Ozbay, F., Johnson, D., & Southwick, S. (2007). Social support and resilience to stress. *Psychiatry*, 35-40.
12. Palaganas, E. C., Sinumlag, A. B., Suyam, R. R., Galang, R. M., & Sia, I. C. (2013). *Documentation of Philippine Traditional Knowledge and Practices on Health and Development of Traditional Knowledge Digital Library on Health for Selected Ethnolinguistic Groups: The ISNAG TRIBE of Katablangan, Conner, Apayao, Cordillera Administrative Reg.* Baguio City: UP Baguio.
13. Reeves, S., Peller, J., Goldman, J., & Kitto, S. (2013). Ethnography in qualitative educational research: AMEE Guide No. 80. *Medical teachers*, 1365-1379.
14. Shen, P., & Slater, P. (2021). Occupational stress, coping strategies, health, and well-being among university academic staff: An integrative review. *International Education Studies*, 99-124.
15. Shilpa, J. (2021). A study of work stress and coping among primary school teachers in New Zealand. *New Zealand Journal of Teachers' Work*, 18-35.
16. Suttie, J. (2017, November 13). *Four ways social support makes you more resilient*. Retrieved from Good Good Magazine: https://greatergood.berkeley.edu/article/item/four_ways_social_support_makes_you_more_resilient
17. Swihart, D. L., Yarrarapu, S., & Martin, R. L. (2022). *Cultural religious competence In clinical practice*. New Mexico: StatPearls Publishing.
18. Tu, C., & Li, X. (2022). Social support and reputational defense strategies of Chinese social networking site users in Sun Yang's controversy. *Public Relations Review*, 1-12.
19. Villani, D., Sorgente, A., Iannello, P., & Antonietti, A. (2019). The

-
- role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Frontiers in Psychology*, 1-11.
20. Wulandhari, N., Golgeci, I., Mishra, N., Sivarajah, U., & Gupta, S. (2022). Exploring the role of social capital mechanisms in cooperative resilience. *Journal of Business Research*, 375-386.
21. Yang, C. (2016). Social relationships and physiological determinants of longevity across the human life span. *PNAS*, 578-583.

Realities of the Less Privileged Learners Toward a School-Community Guidance Program

¹JEANETTE ROSE L. LLACUNA, ²GERARDO S. GARCIA, ³CECILIA P. ARIBUABO, ⁴MARICON M. GUILLERMO, ⁵JOEL B. LOPEZ, and ⁶ELSIE C. PILAR

¹Master Teacher II, Ilocos Norte College of Arts and Sciences

²Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

³Dean, College of Teacher Education, Northern Christian College

⁴Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

⁵Schools Division Superintendent, City Schools Division of Batac

⁶Professor, Vedasto J. Samonte School of Graduate Studies, Northwestern University

ABSTRACT

Introduction: Education enables people to engage fully in society, make educated choices, and contribute to their communities. Thus, education promotes equality, poverty reduction, and sustainable development.

Methods: This qualitative study explored the realities of the less privileged learners in the secondary schools of the Division of Laoag City. Ten learner informants came from the six public secondary schools in Laoag City. Data were gathered through phone call interviews. Thematic analysis was used to draw the themes and sub-themes basing on the Colaizzi's perspective.

Results: The study generated four main themes: Family of the Less Privileged, Reality of Having Less, Facing the Reality, and Win over the Reality. With these conditions, broken marriages, early pregnancy, and domestic violence are evident. The less privileged learners are in a web trap of poor learning environments, poor learning resources, and poor psychosocial support. It is not great to have less, as the study uncovered increased household responsibility among the less privileged learners, resulting in poor concentration, depression, low self-esteem, passivity, and helplessness. Despite having less in life, the learners can appreciate more what life has to offer.

Conclusions: Through hard work – both in studies and labor work, less privileged learners have become more responsible, more committed, and more family-oriented. In facing the reality of having less, strong family ties prove that working through a difficult time can only be made easier with optimism, the help of family, and strong faith in God. The less privileged learners hope for a change on their road to win over the reality of having less in life.

Keywords: School-Community Guidance Program, Less Privileged Learners, Phenomenology, Thematic Analysis

INTRODUCTION

The Philippines is one of the poorest and most unequal societies in Asia. Elite-dominated policymaking and governance positions the poor at a perennial structural disadvantage, as political scientist David Timberman has pointed out. Those who live in the country know all too well that poor living conditions deeply affect the lives of Filipino children. These young people, vulnerable economically, socially, and politically – generally live in poverty-stricken rural areas or urban informal settlements (Resurreccion, 2020).

Educational inequality is the unjust distribution of academic resources. Inequality leads to major differences in the educational success or efficiency of these individuals and ultimately suppresses social and economic mobility. Much of educational inequality is attributed to economic disparities (“Educational inequality”, 2020).

In 1998, the Revitalized Homeroom Guidance (RHG) for secondary learners was created to answer the learners’ needs. Homeroom Guidance is dedicated to addressing the academic, personal/social, and career development needs of the learners in a developmental, comprehensive, and proactive manner. This shall be realized through the collaborative efforts of family, school, community, government, and other institutions (DepEd, 2021). Aside from the Homeroom Guidance Program, the Department of Education also has the Mental Health and Psychosocial Support System (MHPSS) which is focused on the three aspects: the learner, the counseling process, and referral (DepEd, 2020).

The Homeroom Guidance Program and the Mental Health and Psychosocial Support System do not focus on the economic-related concerns of the learners, being children from poor households. Both programs are school-initiated and do not merely involve the

community. This provides a great deal for the researcher to conceptualize this study – involving the community in the guidance program.

The present study deals with the realities of the less privileged learners – a painful reality of inequality. Poor students are deprived of resources for online education and the opportunity to study the learning modules through the help of learning assistant. The less privileged children are being hit the hardest by existing inequalities and pushing them even further behind. This is the grim picture that divides the rich and poor.

The study was conducted with a firm belief that schools can engage with the community through a community guidance program for the learners. This can be a ground for the community to participate in rendering guidance and other related services, thus realizing the aspect of the school-community partnership.

The results of the study are significant to academic institutions, existing body of knowledge, policymakers or school administration, less privileged learners and their families, community, and researchers.

People in poverty are as diverse as people in any other socioeconomic class. They present, like other groups, a wide array of values, beliefs, dispositions, experiences, backgrounds, and life chances. As educators, to be responsive to the needs of the students, it is helpful to consider the constraints that poverty often places on people's lives, particularly children, and how such conditions influence learning and academic achievement. Poverty affects intervening factors that, in turn, affect outcomes for people (Parrett & Budge, 2016). These factors include learning environment, learning resources, learning support, and psychosocial support.

The Internal Bureau of Education, as a leading institute of UNESCO (2016)

emphasized the importance of a positive learning environment. Learners in supportive environments have high levels of self-efficacy and self-motivation and use learning as a primary transformative force. Welcoming the learner –child, youth, or adult– in an environment where they can feel safe and nurtured is very important for the development of everyone and society as a whole. Addressing the issue of the learning environment comprehensively and systematically is even more critical in countries with limited financial resources. Getting marginalized children into school is just a first step. Ensuring that they receive a good education poses significant policy challenges (UNESCO, 2006).

The learning environment of the less privileged vary. There are students who are exposed to household responsibilities while others are working at a very young age. Darolia (2014) cited in Tumin et al. (2020) found that working students is a common phenomenon everywhere. As a result, the more time a student spends working, the less time he or she engages in academic studies (Greene & Maggs, 2017). Mathews (2018) described that students' experiences of time constraints are normally related to the working time. Working while studying is an introduction to the real-world experience (Tymon, 2013). Household activities have been theorized as an impediment to students' concentration in school activities and performing well in their studies. In the study by Chinyoka and Naidu (2014), they found that girls are losing out on education because they are needed more to support their household with labor. Emmanuel (2015) stated that the more chores are time-consuming and physically demanding, the more it takes a student from performing academic activities. Learners in supportive environments have high levels of self-efficacy and self-motivation and use learning as a primary transformative force.

In terms of learning resources, poverty often places constraints on the family's ability to provide other material resources for their

children as well. For example, they may have limited access to high-quality daycare, limited access to before- or after-school care and limited physical space in their homes to create private or quiet environments conducive to study. They may not own a computer or have the financial resources necessary to complete out-of-class projects. In a study conducted by Lacour and Tissington (2011), it was revealed that poverty significantly affects the resources available to students. Due to this lack of resources, many students struggle to reach the same academic achievement levels as students not living in poverty. During the outbreak of the Covid-19 pandemic in the Philippines, a survey conducted by Save the Children International (2020) showed that at least 10 million students worldwide were not able to return to school due to a lack of access to the technology needed for distance learning and support they need at home. According to Aldama (2020), the gap between the rich and the poor remains even after this pandemic. The lower classes will continue to navigate their way around the limits of their daily lives to have better access to the things they need to survive. In a study conducted by Llacuna et. al. (2020), she found out that students have experienced a lack of learning resources particularly the gadgets to be used for online learning such as cellular phones, tablets, laptops, and personal computers as well as excellent internet signal are some of the utmost concerns in the new normal school year.

Usun (2004) define learner support as the resources that learners can access to carry out the learning processes. Parental and family engagement crosses the boundary between schools and communities. Such engagement can influence how well-connected students are to the academic and social expectations of schools. Parental and family engagement can mean that parents are involved in home-based activities, such as ensuring that homework is completed; monitoring student progress and improvement through school visits and in the home; talking over the phone to teachers and

administrators; planning activities for the school; participating in fundraising activities; attending and assisting with field trips; attending extracurricular activities such as sports and plays; staffing concession stands; volunteering in the classroom; and serving on advisory boards (Hoover-Dempsey & Sandler, 1987). The learning support of underprivileged children is becoming an issue, particularly in distance education. Many underprivileged learners have been struggling with their self-learning modules, and no one in their households is knowledgeable enough to assist them. A survey conducted by Save the Children International (2020) showed that at least 40 percent of children from poor households said they needed help with their schoolwork, but no one can help them. Lack of learning support from parents is also due to indolence. The study of Concepcion (2015) revealed that attitudes such as indolence is found in the web trap theory of poverty. Also, the study of Caday (2004), one of the identified causalities of *kinamarigrigat* (arduous life) is *kinasadut* (indolence).

Furthermore, psychosocial support is an important aspect of children's education. Psychosocial support can be described as a process of facilitating resilience within individuals, families, and communities. By respecting the independence, dignity, and coping mechanisms of individuals and communities, psychosocial support promotes the restoration of social cohesion and infrastructure" (IFRC Reference Centre for Psychosocial Support, 2009). Poverty is such an uncomfortable word. Eric Jensen (2013) has articulated in his article how poverty affects classroom engagement. Children who grew up in poor families are exposed to food with lower nutritional value. Poor nutrition at breakfast affects gray matter mass in children's brains. Skipping breakfast negatively affects students' academic achievement by adversely affecting cognition and raising absenteeism. When students experience poor nutrition and

diminished health practices, it is harder for them to listen, concentrate and learn. Children living in poverty experience greater chronic stress than their more affluent counterparts. Distressed children typically exhibit one of two behaviors: angry 'in your face' assertiveness or disconnected 'leave me alone' passivity. Those behaviors are symptoms of stress disorders and distress influences many behaviors that influence engagement. The negative impacts of working students are mainly related to anxiety and depression. Working students display more anxiety and depression compared to their counterparts. Most of the studies agreed that students who choose to work whilst studying at several point of time will suffer from stress and even leaves less desired time to study (Manthei & Gilmore, 2005 cited in Tumin et al, 2020). According to Lanozo (2021), mental breakdown, including anxieties, depression, and being stressed out, was very evident to students. Lots of homework, activities, quizzes, etc., which were passed down to students, contribute to students' burnout, and emotional and even psychological problems that need to pay attention to.

The first and foremost reason behind the low rate of enrolment of underprivileged children is poverty and deprivation. Where it is difficult for parents to make both ends meet, education takes a back seat. Children of underprivileged families are unable to meet the expenditures incurred during the learning process buttressing the case of dropout and discontinuation of studies. Also, children of uneducated parents are mostly not guided well and lack the basic exposure to education which becomes a necessary condition for the selection in high profile schools (Andleeb, 2014). This is the reality of inequality in education and educational poverty.

Children living in poverty face many barriers to accessing an education. The greatest challenges in global education that the world needs to take action on to achieve Global Goal 4: Quality Education by 2030 include a lack of

funding for education, having an untrained teacher, absence of classroom, lack of learning materials, exclusion of children with disabilities, being in the wrong gender, living in a country in conflict or at risk of conflict, distance from home to school, hunger and poor nutrition and expense of education (Rueckert, 2019). Poverty is a pertinent factor that is found to be a barrier in the path of progress of disadvantaged children. The government has been giving financial aid to these students long since. Popularly known as 4Ps, the Pantawid Pamilyang Pilipino Program is a poverty reduction and social protection and development strategy of the national government that provides Conditional Cash Grants to poor households to improve their health, nutrition, and education of children aged 0-14 y/o (DSWD Operations Manual, 2013). Simply, the program aims to help keep 5.6 million children healthy and in school.

Issues like academic failures, school dropouts, bullying, unhealthy sexual behavior, teenage pregnancy, drug addiction, online and social media addiction, confusion in and/or poor career choice, and other challenges that beset our learners today were considered in developing the Homeroom Guidance Program of DepEd. Learners who go through Homeroom Guidance have been found to have significantly decreased inappropriate behaviors and demonstrated positive attitudes toward school as compared to those learners who were not part of the School Counseling Program (Baker and Gerler, 2001). The study of Brigman and Campbell (2003) also showed that elementary and middle school learners who were part of the school counseling curriculum and group interventions that emphasized cognitive, social,

and self-management skills have consistently exhibited good performance in Mathematics and Reading. Furthermore, the study of Schlossberg et.al (2001) showed that there is a significant improvement in terms of learner behavior, attitude, and knowledge in the areas of goal-setting, problem-solving, career exploration, and school resources. Further, the study by Carey and Dimmitt (2012) found that students' success in school, academically and behaviorally, can be attributed to the student's access to the school counselor and comprehensive guidance programs and this is particularly true for students in high-poverty schools.

RESEARCH PROBLEMS

Generally, the study uncovered the realities of less privileged learners delved in answering these questions: What is the learning-related realities of less privileged learners? and How do the less privileged learners cope with the realities?

METHODS

Research Design. The study applied the qualitative design through the case study approach. The realities of the less privileged learners were described. The cases highlighted the challenges and struggles faced by the less privileged learners and the way they respond and cope with these realities.

Participants There are TEN participants of the study. Table 1 summarizes the number of participants in each public secondary school of the Division of Laoag City.

Table 1. Participants of the study.

School	No. of Participants
Ilocos Norte National High School	2
Ilocos Norte College of Arts and Trade	1
Ilocos Norte Regional School of Fisheries	1
Caoacan High School	2
Gabu National High School	2
Balatong Integrated School	2

Research Instruments. The study utilized one set of the instruments, which is the conversation guide. The researcher used the conversation or interview guide for the learner participants. The conversation guide is composed of four main questions.

Data Gathering Procedure. Approval was first secured from the Schools Division Office. After which, the researcher closely coordinated with the DSWD Field Office I. After completion of requirements, the researcher entered a MOA with DSWD Field Office I. After the MOA, the researcher closely coordinated with the City Operations Office through the City Links. Furthermore, the researcher sought permission from the Laoag City Division Superintendent and School Principals to conduct interviews with the target participants. Another letter was given to the learner participants. The researcher personally informed the participants what the study is about, including possible benefits and risks.

After proper coordination with the respondents, the researcher immediately scheduled the conduct of the study. Data were gathered through *pannakitongtong* (long chats) over the phone. The researcher encouraged the participants to talk freely about the realities of being a less privileged member of the community from their perspective as a student.

Hence, follow-up questions are expected. From this point, the participants were asked how they are dealing with the realities of being a less privileged learner. The discussions were kept flexible to gather the maximum amount of information possible.

Data Analysis. The result of the case study was analyzed using a thematic approach applying the Colaizzi steps. First, the responses of the informants were transcribed based on each guide question (Responses). Second, the significant statements were extracted and categorized (Categories). Third, the meanings of the categorized statements were developed into sub-themes (Sub-Themes). Fourth, a comprehensive description of the sub-themes was developed (Themes).

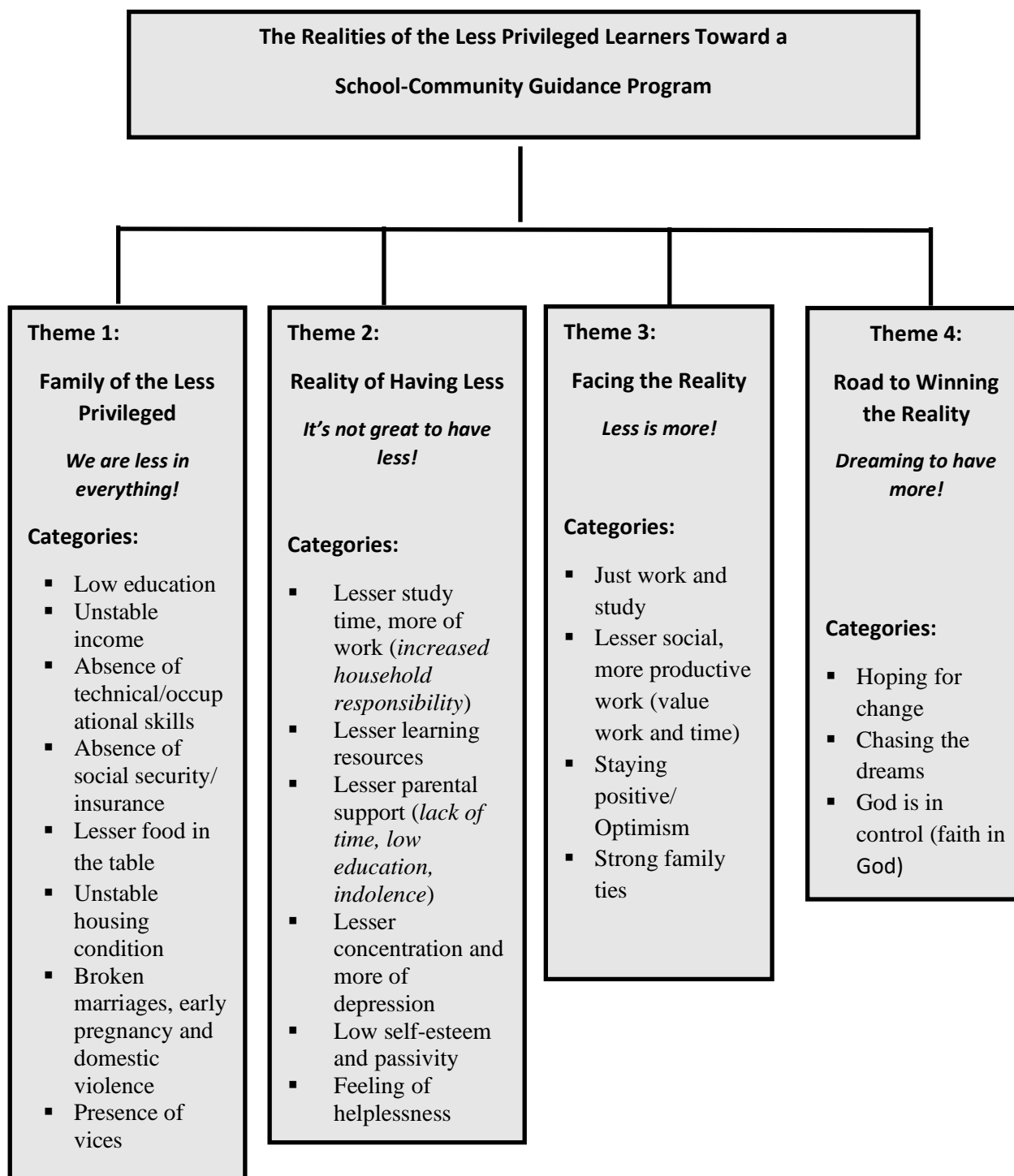
Ethical Considerations. The main ethical considerations for this study are informed consent, confidentiality, and anonymity. An informed-consent form includes permission to interview, audiotape, and publish the findings obtained from all participants. Confidentiality and anonymity of participants were ensured by the researcher by choosing a code attached to the transcribed interviews and data analysis; not writing the name of the interviewees on the audio files and written texts.

RESULT

The realities and coping mechanisms of less privileged learners are presented in the conceptual map of themes in Figure 1.

Figure 1

Conceptual Map of Themes.



DISCUSSION

Theme 1: Family of the Less Privileged. The first main theme “Family of the Less Privileged” refers to the different pictures of poverty in a less privileged household. For Ilocanos, being less is *kinamarigrigat*. Being poor or having less has disrupted learners’ lives in many ways.

Parents of the less privileged learners have low education, whose job occupation are seasonal, hence they do not receive regular income from these sources. Because of the absence of the required skills, parents and other family members of working age can hardly earn a job. Other than PhilHealth, less privileged families do not have Social Security System or SSS. Low-income families have lesser food on the table. Some of the families of the learner informants share only one well-balanced meal in a day while others share two well-balanced meals, particularly lunch and dinner. Because of the meager income, the parents or guardians could not give their children three well-balanced meals a day. The housing condition of the less privileged families is made of light materials and a combination of concrete and wood type. Most of the designs of the houses are either studio-type for those with semi-permanent materials or *bahay kubo* style for those with light materials. Furthermore, four of the less privileged learners interviewed came from broken marriages. Three of them have mothers who ran away and never came back, while one has a father with another family. On the other hand, domestic violence also happens among low-income households. In a low-income household, among the vices are alcoholism, smoking, lottery, cockfighting, and blabbermouth/gossip women.

Theme 2: Realities of Having Less. The second main theme “Reality of Having Less” refers to the experiences of

learners being in a less privileged family. These are the constraints that being less often places on learners’ lives, and how such conditions influence the learning process, particularly in the context of learning environment, learning resources, learning support, and psychosocial support. For less privileged learners, “*it’s not great to have less.*”

Lesser study time is also due to increased household responsibilities such as chores. Household activities have been theorized as an impediment to students’ concentration in school activities and performing well in their studies. Also, the less privileged learners in the study claimed that they have lesser learning resources such as gadgets and other school supplies. They may have a recycled notebook but cannot afford to buy art materials for their assignments and projects. Poverty often places constraints on the family’s ability to provide other material resources for their children. The study also found that less privileged learners have lesser parental support, primarily because of parents’ low education, lack of time, and being indolent. Lesser concentration was also found among less privileged learners due to intake of food with poor nutritional value, stress and depression. Children who grew up in poor families are exposed to food with lower nutritional value. Less privileged learners can have trouble concentrating and understanding their lessons because of the poor environment they experience in their homes. They often self-pity and further feel depressed. The lack or absence of passivity among less privileged people hinders their growth. Being less privileged makes the less privileged students feel helpless.

Theme 3: Facing the Realities. The third main theme “Facing the Reality” pictures how the less privileged students

adapt themselves as having less in everything. It narrates how they deal with having less, and further made them realize that *less is more*. While there are complicated problems for less privileged learners, some view things positively, grow outstanding achievements, and increase strength even if they experience such problems in their lives. The participants of the study, despite their experience, perceived a positive side, developed themselves and valued people.

Children from less privileged families are sometimes being looked down upon in society. Students feel having less and bullies start criticizing them. Despite the reality of having less, these children have managed to adapt themselves by striving to work and study. These learners have managed to rise about that economic circumstance. Meanwhile, less privileged learners preferred to do productive works such as helping with household chores and rendering services or labors than play and recreation. Although these students admitted that they want to engage in social activities such as play and recreation, they prioritized doing productive work considering their economic circumstances. At a very young age, these learners develop a sense of responsibility in their respective families, they become more hardworking, and they persevere to help their families. Less privileged learners draw support from their relatives and friends, especially in moments of economic turmoil and during difficult times in their learning process. The responses of the less privileged learners indicate that despite life difficulties, they remain optimistic. For less privileged learners, more difficult times will throw them off even worse. But when they are optimistic, even tragedy will not destroy them. With the power of positive thinking, they can put situations in perspective and

deal with them as they arise. In facing the reality of having less, strong family ties prove that working through a difficult time can only be made easier with the help of family. They draw strength from each other. The narrations of the less privileged learners demonstrate the importance of family and how much power certain relationships can have on any obstacle. The stronger their family ties are, the more they realize that despite having less, they grow more in love and support.

Theme 4: Win Over Reality. The fourth and the last main theme “Win Over the Reality” narrates how the less privileged learners dream of change, after having less in life has made their soul, dream, and hope crushed. Having less is a life-crushing force, it is exhausting, it is despair and desperation-inducing. The reality of having less – is a world that no one wants to live in. It is like a prison cell with no doors or windows. It feels claustrophobic as if there is no way out. Only the most resilient do not give up. There is no guarantee that life will get better – and those less privileged know this all too well. They either become hardened or submit to fate. The narrations of the less privileged learners show they never stop believing that there must be a way out. The very thing that brought despair motivated them to find a way out, to find that light that must exist outside of the walls – the journey they called, the road to win over the reality. The less privileged learners *dream to have more* in life.

The perseverance of the less privileged learners mirrors their strength and fortitude to make the decision that they are going to make a change. Their hope for a change is their fuel to win over the reality of having less in life. Thus, they dream to have more. For the less privileged learners,

being less in life is not an obstacle to chasing their dreams. While some heavily rely on their joy, dreams, and aspirations on their socioeconomic status, the participants do not consider being less in life as an obstacle to becoming happy. This implies that these less privileged learners can smell the flowers despite the stress of life getting in the way. People in poverty can still succeed – with aspirations, hopes, and dreams. Being less in life did not make them afraid to dream. Less privileged children tend to establish a close relationship with God – attending religious activities and being able to speak highly of God. The less privileged learners will win over the reality by having faith in God – the God whom they believe can sustain all their needs and the only God who promised them a share in His kingdom. With radical faith in God, the less privileged are dreaming to have the fullness of life (*kinavan-cavan a panagbiag*).

CONCLUSIONS

Generally, the family of the less privileged is characterized by parents' low education and lack of technical and occupational skills, resulting in unstable family income and lesser food on the table. The family is within the survival level of well-being due to the absence of social security or insurance, unstable housing conditions, and the presence of vices. With these conditions, broken marriages, early pregnancy, and domestic violence are evident.

The less privileged learners are in a web trap of poor learning environments, poor learning resources, and poor psychosocial support. It is not great to have less, as the study uncovered increased household responsibility among the less privileged learners, resulting in poor

concentration, depression, low self-esteem, passivity, and helplessness.

Despite having less in life, the learners can appreciate more what life has to offer. Through hard work – both in studies and labor work, less privileged learners have become more responsible, more committed, and more family-oriented. They preferred to do productive work such as helping with household chores and rendering services or labors than play and recreation. The supports genuinely received by the less privileged learners make them feel secure, despite having less in life. It motivates and keeps them focused. It does not matter how slowly they could alleviate their situation as long as they do not stop and got a support system, having less is indeed having more. In facing the reality of having less, strong family ties prove that working through a difficult time can only be made easier with the help of family. The stronger their family ties are, the more they realize that despite having less, they grow more in love and support, thus, having less is more. The less privileged learners hope for a change on their road to win over the reality of having less in life.

RECOMMENDATIONS

The study recommends for the adoption of the Proposed School-Community Guidance Program. DepEd should revisit its policy on community engagement through the School Governance and Operations Division to strengthen collaboration with the community and other stakeholders such as the academe through the Higher Education Institutions, TESDA, Congressional Office, Provincial Government, City Government, NGOs, POs, and CSOs.

Being one of the service providers to DWSD's Pantawid Pamilyang Pilipino Program, DepEd should institutionalize its partnership with DSWD-Field Office I and Provincial Operations Office in the implementation of the School-Community Guidance Program. A Memorandum of Understanding shall be inked between the two agencies, with the aim to provide support services to the less privileged learners.

References

1. Aldama, P. R. (2020, March 16). 'What will happen to poor students when schools go online?' *Rappler*. <https://www.rappler.com/moveph/254707-opinion-poor-students-schools-online-coronavirus/>
2. Andleeb, P. (2014). *Education and Inequality Across Europe*. Cheltenham: PMG Books Ltd.
3. Baker, S. B., & Gerler, E.R. (2001). Counseling in schools. In D. C. Locke, J. E. Myers, and E. L. Herr (Eds.), *the Handbook of Counseling*, Thousand Oaks, CA: Sage Publications.
4. Brigman, G., & Campbell, C. (2003). Linking School Counselors and Student Success: A Replication of the Student Success Skills Approach Targeting the Academic and Social Competence of Students. *Professional School Counseling*, 407-413.
5. Caday, S. P. 2004. Gender-based phenomenology on poverty in a rural community. Unpublished doctoral thesis. Mariano Marcos State University, Laoag City.
6. Carey, J, Dimmitt, C. , Hatch, T. , Lapan, R. , Lee, C. , & Whiston, S. (2005, June). Report of the National Panel for Evidence Based School Counseling: Outcome research coding protocol and evaluation of Student Success Skills and Second Step. Paper presented at the annual conference of the American School Counselor Association, Orlando, FL.
7. Chinyuka, K. and N. Naidu. (2014). Influence of Home Based Factors on the Academic Performance of Girl Learners from Poverty Stricken Families: A Case of Zimbabwe. *Mediterranean Journal of Social Sciences*. Vol 5 No 6. MCSER Publishing, Rome-Italy
8. Concepcion Jr., L. E. 2015. Rural poverty modeling in upland communities of Ilocos Sur and Abra, Northern Philippines. Unpublished doctoral thesis. Mariano Marcos State University, Laoag City.
9. Department of Education. DepEd Revised Implementation of Homeroom Guidance for School Year 2021-2022. Retrieved from <https://www.teacherph.com/depd-homeroom-guidance/>
10. Department of Education. The 2020 Online and Self-Guided PFA Modules. Supplemental to the SEES Manual. Disaster Risk Reduction and Management Service 2nd Floor, Rm 201, Mabini Building, DepEd Complex,

-
- Meralco Avenue, Pasig City, Philippines.
11. Department of Social Welfare and Development. Pantawid Pamilyang Pilipino Program Operations Manual. 2013
 12. Educational inequality. (2020, August 2). In *Wikipedia*. https://en.m.wikipedia.org/wiki/Educational_inequality
 13. Emmanuel, L. (2015). The Influence of Household Chores on Girls' Academic Performance in Secondary Schools in Morogoro Rural District. Unpublished master's thesis in Administration, Planning and Policy Studies, Open University of Tanzania.
 14. Greene, K. M., & Maggs, J. L. (2017). Academic time during college: Associations with mood, tiredness, and binge drinking across days and semesters. *Journal of Adolescence*, 56, 24–33. <https://doi.org/10.1016/j.adolescence.2016.12.001>.
 15. Hoover-Dempsey, K. V., Bassler, O. C., & Brissie, J. S. (1987). Parent involvement: Contributions of teacher efficacy, school socioeconomic status, and other school characteristics. *American Educational Research Journal*, 24, 417-435.
 16. International Federation of Red Cross and Red Crescent Societies. 2014. Mental Health and Psychosocial Support.
 17. Jensen, E. (2013). Engaging students with poverty in mind. Alexandria, VA: ASCD.
 18. Lacour, M. and L. Tissington. 2011. The effects of poverty on academic achievement. *Educational Research and Reviews* Vol. 6 (7), pp. 522-527, July 2011 Available online at <http://www.academicjournals.org/ERR> ISSN 1990-3839 © 2011 Academic Journals
 19. Lanozo, J., L. Tabieros, E. Solmiano, and N. Paras. (2021). Buhay Estudyante: The Lives of Students from Broken Families Amidst the Pandemic. *International Journal Of Advance Research And Innovative Ideas In Education* 7(1):2021 DOI:10.6084/m9.figshare.13726210.v1
 20. Llacuna, et. al. (2021). Educational Threats in the Lived Experiences of the Underprivileged Learners During the Pandemic. Department of Education – Division of Laoag City. Laoag City, Ilocos Norte, Philippines.
 21. Matheuws, K. B. (2018). The working time-poor: Time poverty implications for working students' involvement. Doctoral Dissertation. USA: Ohio University.
 22. Parrett, W. and K. Budge. 2016. How Does Poverty Influence Learning? George Lucas Educational Foundation.
 23. Resurreccion, N. D. (2020). *The new normal for Filipino children*.

-
- Philippine Daily Inquirer. Manila, Philippines.
24. Rueckert, D., Kim, D.-J., & Seo, D. Students' perceptions and experiences of mobile learning. *Language Learning & Technology*, 17(3), 52–73. Retrieved from <http://lt.msu.edu/issues/october2013/kimetal.pdf>
25. Save the Children International. (2020). *Almost 10 million children may never return to school following COVID-19 lockdown*. Retrieved from <https://www.savethechildren.net/news/almost-10-million-children-may-never-return-school-following-covid-19-lockdown> on November 14, 2020.
26. Schlossberg, S.M., Morris, J.D., & Lieberman, M.G. "The Effects of a Counselor-led Guidance Intervention on Learners' Behaviors and Attitudes. *Professional School Counseling*". 2001.
27. Tumin, A. Faizuddin, F. Mansir, H. Purnomo, and N. Aisyah. (2020). *Working Students in Higher Education: Challenges and Solutions*. International Islamic University Malaysia, Gombak Selangor Malaysia.
28. UNESCO. (2016). 263 million children and youth are out of school. Retrieved from <http://www.uis.unesco.org/Education/Pages/oosc-data-release-2016.aspx>
29. UNESCO. (2006). *Education in emergencies: The gender implications [Advocacy brief]*. Retrieved from <http://unesdoc.unesco.org/images/0014/001489/148908e.pdf>
30. Usun, S. 2004. *Learner Support Services in Distance Education System (A Case Study of Turkey)*. *Turkish Online Journal of Distance Education-TOJDE* October 2004 ISSN 1302-6488 Volume: 5 Number: 4