Modular Distance Learning: Its Effect In The Academic Performance Of Learners in The New Normal

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Abstract — Due to the Covid-19 pandemic, schools, particularly in the rural areas employed Modular Distance Learning (MDL) to ensure educational continuity. This study seeks to investigate the effects of MDL in the academic performance of learners of Buri Elementary School in Buri, Matanao, Davao del Sur whether there is a significant difference in their performance before and after the implementation of MDL. A mixed-method was applied in this study; Quantitative using T-Test to compare the GWA of learners and Qualitative through the use of the semi-structured interview to find out the perceived effects of MDL to ten (10) parents, ten (10) learners, and seven (7) teachers, and their recommendations. The study revealed that the 2.25% decrease in the GWA of learners after the implementation of MDL denotes a significant difference in their academic performance. MDL strengthens family bonding, independent learning, and is cost-effective. However, it is an additional workload to working parents, there is limited teacher-learner interaction, learners lack socialization with other children, and have no exposure to significant school activities but are rather exposed to many distractions at home. To bridge the gaps, simplifying modules accompanied by video lessons and audio recordings, conduct of online mediations, neighborhood instruction, and home visitations are recommended. The results of this study will help teachers reflect on their current teaching strategies and improve learning outcomes. Future researchers who will conduct research related to "Modular Distance Learning" may also consider the findings of this study in drafting their related concepts.

Keywords — Modular Distance Learning, academic performance, new normal

I. Introduction

Modular Distance Learning (MDL) involves individualized instruction that allows learners to use self-learning modules (SLMs), whether printed or in digital format which are centered on the Most Essential Learning Competencies (MELC) provided by DepEd (Martinez, 2020). Teachers provide learners with the SLMs which include distribution and retrieval as well as giving assessment tools to check for understanding and provide immediate and appropriate feedback. In Modular Distance Learning, the teacher takes responsibility for monitoring the progress of the learners through home visitation, if possible. Learners may ask assistance from the teacher via text messages, cell phone, or even email (Llego, 2021.).

Modular Distance Learning is a response to the "No Child Left Behind Act" where children must receive the best education possible, leaving no child behind (No Child Left Behind Act, 2002). Through the use of SLM, this mode of learning becomes accessible to more learners. MDL was seen to be most preferred by families, for a reason that it is cost-efficient or families would save much. While families would save much, it will cost the government much for just the billion pages of SLMs for millions of public school learners. Moreover, the creation of modules was done in a short period, so errors in the modules were involved such as factual, computational, clerical, printing, and typographical errors which the Department of Education assured that they are monitoring and rectifying this errors (Gonzalez, 2019).

The researcher focused on the school, Buri Elementary School located in Buri, Matanao, Davao del Sur. When the pandemic hits the world over, including the Philippines, Education officials decided on using the many alternative means of learning, including modular distance learning. What has module learning done to the academic performance of learners? This question prodded the researcher to conduct the study and identified her own school as the focus of this study.

The temporary closure of schools has affected more than 1.2 billion learners worldwide and more than 28 million in the Philippines (UNESCO, 2021), wherein face-to-face instructional activities were temporarily closed (Wajdi et al., 2020). Modular distance learning is one of the learning delivery modalities implemented in the Philippines in the new normal education (DepEd, 2020) where teachers developed learning modules (Ramadhan et al., 2020; Auditor & Mutya, 2022). However, this learning modality posed different challenges, risks, and problems to the students and teachers (Bao, 2022; Geverola et al., 2022). The Department of Education (DepEd) emphasizes the vital role of parents and guardians in ensuring that their children's learning will continue. The support and cooperation coming from the parents will be critical to the success of the entire education system (Hernando-Malipot, 2020).

Parental engagement is the level of involvement in their children's education (Goodall & Montgomery, 2019; Jeynes, 2019; Yamamoto et al., 2019). Parents are one of the education stakeholders (Janmaat et al., 2019). Parents may hesitate to get involved in their children's education, even if some schools encourage it (Bartolome et al., 2019). Parents' role in accompanying children's success during home study becomes very central, in line with that World Health Organization (2020) released various guidelines for parents in attending to their children during this pandemic, including parenting tips to be more positive and conducive in accompanying children during their activities at home. According to Rahmadani et al. (2021), it is not just the obligation of educational institutions to implement education; parents and the local community also have a role in this regard. The role of parents' cognitions in shaping socialization practices and children's developmental outcomes is of universal significance (Alampay & Jocson, 2019). The criticality of education problems during the pandemic is seen when parents become teachers at home with various parental backgrounds; this happens in all regions of the world (Saleh et al.,

2021). It has also given a challenging routine to parents taking responsibility for their children's learning process (Coyne & Cowley, 2020; Garbe et al., 2020; Parczewska, 2021). Moreover, embracing the new normal in education could mean doubling the effort exerted by the stakeholders, especially the parents, who play a crucial part in implementing modular distance learning.

School closures left everyone unprepared and uncertain about when the schools reopen in the middle of a health crisis (Viner et al., 2020). The shift of the educational system from the conventional way of learning where the child freely learns and interacts in a natural classroom setting evolved to the new normal way of learning known as distance learning. In this scenario, the burden brought by this catastrophe greatly affected the parents, especially the girls. Montoya (2020) elaborates on the importance of the role of parents being the first teacher and the home as the first place where learning takes place. Parents took a vital role in the learning continuity plan (Cahapay, 2021).

Parents realized how important school and teachers are after they have been experiencing home-based teaching and learning. Parents and children live with increased stress, media hype, and fear, which challenges their capacity for tolerance and long-term thinking (Cluver, 2020). The economic crisis has added since many have lost their jobs, adding to parental problems in providing the necessities for their child. Moreover, many parents are afraid of the possible adverse effects of distance learning since numerous children think of it as a vacation from school; hence they want nothing to do with their school-like routine (Bhamani, 2020).

On a positive note, home confinement and home learning could increase the bond between parents and children as they spend more time together. Parents have the potential to help their children learn and grow through natural daily interactions and activities (Cluver, 2020). On the other hand, Bhamani et al. (2020) stated that some parents have used this opportunity to try out new things and ideas with their kids to become creative and do something they have not done before. Llamas and Tuazon (2019) revealed that child's academic performance improves upon seeing their parent's involvement in education. Hence, parents' participation in school motivates their children to perform academically better.

The reviewed literature and studies had a resemblance with the current research conducted, for it amplifies the role of parents in modular distance learning and the challenges they experienced in helping and assisting their child to learn despite the physical absence of the teacher. It elaborates on factors such as individual-related challenges, instructional-related challenges, and institutional-related challenges. It investigated the possible effects of these challenges on their child's performance. The present study focuses only on the parents in remote areas like those living in Buri, Matanao, Davao del Sur.

The study is related to the modified version of the packet theory. This is a modular theory of learning and performance that contains parts that may be labeled perception, memory, and

decision. The theory combines ideas from scalar timing theory (Gibbon, Church & Meck, 2019), the learning-to-time model (Machado, 2019), and conditioning theories (Rescorla & Wagner, 2019), as well as from several additional sources. Like scalar timing theory, it considers a clock as an accumulation process and uses a threshold for comparison of the clock and memory. Like the learning-to-time model, it considers perception and memory as vectors. Like conditioning theories, it uses combinations of values with a linear operator rule. Packet theory is not unique in being a modular theory: Many theories of conditioning and timing may be regarded as modular (Church & Kirkpatrick, 2021). This feature, however, maybe the most important one for the development of theoretical improvements.

Identifying three historical methods for the creation of a theory of distant education is another idea by Keegan (2019) that is relevant to this study. Theories of autonomy and independence from the 1960s and 1970s, argued by Moore (2013), reflect the essential component of the independence of the learner. Work on a theory of industrialization in the 1960s reflects the attempt to view the field of distance education as an industrialized form of teaching and learning (Peters, 2019). The third approach integrates theories of interaction and communication formulated by Bååth (2019). Using the post-industrial model, Keegan presents these three approaches to the study and development of the academic discipline of distance education. It is this concept of industrialized, open, nontraditional learning that, Keegan says, will change the practice of education.

II. Methodology

This study used the qualitative and quantitative type of research. Qualitative research involves the collection and analysis of narratives or open-ended observations through interviews while Quantitative research relies on data that are observed or measured to examine questions about the sample population (Ahmad, et. al, 2019). The researchers conducted the study in Buri Elementary School in Buri, Matanao, Davao del Sur School located in a rural area. Twenty (20) parents, twenty (20) learners, and ten (10) teachers are the respondents of the study.

For the Qualitative method, the researchers used interview guide questions to find the effects of Modular Distance Learning as perceived by learners, parents, and teachers. As for the data collection, the researchers gathered all the answers of the respondents and broke the data into small segments that reflect a single and specific answer. After the arrangement and finalizing of the gathered data, the researchers analyzed the qualitative data and determined the effects of MDL formulated in the respondents answers through the interview guide questions. Lastly, the researchers generalized the meaning of the gathered data and grouped it into themes- the positive and the negative effects of Modular Distance Learning and the interventions to be used.

Data gathered were systematically treated and analyzed using descriptive and inferential statistics to achieve a correct and reliable result. Frequency and Percentage count were used to

determine the demographic profile of the respondents. Mean and standard deviation was utilized to determine the academic performance of the learner before and after the MDL. T-test will be used to determine the significant difference in the perceived academic performance of learners before and after the implementation of modular distance learning. Analysis and interpretation was used in the qualitative aspects of the research.

III. Results and Discussion

Academic performance of learners in Buri Elementary School before and after modular distance learning

The mean of the four (4) quarters before the MDL implementation is 88.25% while after the Modular Distance Learning the mean is 86%. This implies that there is a 2.25% difference between the mean before and after the implementation of MDL. As observed by teachers, there is a difference in the academic performance of learners before and after MDL. The onset of the MDL brought more disadvantages to the learning field.

Effect of modular distance learning on the academic performance of learners as observed by Learners, Parents, and Teachers

There were many effects of the MDL, both positive and negative. *Positive effects are strengthening family bonding, asynchronous learning, cost effectiveness, parents are not knowledgeable in teaching their children, blended learning, and produce module early. Negative effects are limited teacher-learner interaction, additional workloads for parents, distractions at home, no exposure the significant activities, too many activities in the modules, lack of socialization, and errors in some modules.*

Proposed Interventions to improve the academic performance of learners in the new normal

Intervention made came from the suggestions of the participants: *simplify modules, home visitation, conduct online mediation, and neighborhood or community instruction.*

Discussion

This pandemic has paved the way for the implementation of different learning modalities like the Modular Distance Learning as an urgent response to ensure the continuity of education.

Different studies were conducted to determine the achievement of students in the traditional and new normal way of teaching. Using the module as an approach as a corrective teaching material has increased the student achievement level of the students compared to the traditional way of teaching. In the published paper by Satyarthi (2021) on the effective learning strategy for secondary school students-modular approach found out that modular teaching method

was better than the traditional teaching method. So, this modular approach can improve students' learning capacity as well as to facilitate them to read this self- learning material besides the book.

Furthermore, Naboya (2019) concluded that a modular approach is more effective compared to conventional methods. Reading comprehension moderates the effect of the teaching method on student's achievement levels.

In a published paper by Ambayon (2020) on modular-based approach and students' achievement in literature, the study conducted the performance of the students in literature in the use of modular approach had improved from poor to excellent achievement whereas the students who did not use modular approach had relatively improved from poor to fair achievement. Another study by Oparina & Rakova (2019) on the Modular Approach to Teaching and Learning English Grammar in Technical Universities revealed that the module approach in teaching is effective for improving students' knowledge. Its Modular approach to teaching and learning in the English grammar is found to be effective in teaching and increases students' understanding and critical thinking.

A study by Valencia (2020) Modular Approach in Teaching Science 10 showed that when using a modular approach to teaching, student performance was significantly improved on test results and was described as competent. This indicates that the approach has clearly shown a vital link in increasing students" academic achievement. While Yazon (2019) in his article on module validation and effectiveness in assessing students learning, found the module to be effective in facilitating the learning process.

It would be better if there would be ample time for the quality checking of its content. There should also be areas where the lessons should be presented in a more comprehensive manner to be best understood by pupils.

Adequate learning materials may be provided. Parents and teachers should be aware of their roles and responsibilities in teaching learners for them to learn efficiently and effectively.

Parents should be more patient in helping their children in answering the learning materials as well teachers should also give follow up activities to better understand the lessons.

Pupils must be responsible to do their modules for continues learning. Parents should only guide their children in answering the modules. They must not do their task instead.

Give more concrete examples about the lesson and lessen the activities most especially with the elementary pupils.

IV. Conclusion

The academic performance of learners after the implementation of Modular Distance Learning (MDL) has decreased. It only means that face-to-face which is the most important side of physical learning was more favorable and more effective in terms of children's learning. It was determined that there were more negative effects of MDL than positive ones.

According to the respondents, limited interaction between the teacher and the learners was the main problem that emerged in the implementation of Modular Distance Learning. Another problem is that there are too many tasks/ activities incorporated in the modules. Hence, constant monitoring of teachers (home visitation) on the progress of learners to be able to give feedback mechanisms and guide those learners who need special attention is a must. The administration should concentrate on improving and simplifying worksheets or workbooks to be distributed to learners accompanied with video lessons that are aligned with the Most Essential Learning Competencies (MELC).

They should conduct training, seminars, or workshops for teachers to be acquainted and so that their skills in the use of Modular Distance Learning (MDL) will be enhanced. Lastly, before the opening of each school year, a meeting or open forum among teachers, parents, and other stakeholders should be conducted to further explain or discuss the reality of the new normal education.

This research paper will help future researchers who will conduct future research about Modular Distance Learning (MDL). Future researchers may consider the findings of this study about the effects of Modular Distance Learning (MDL) when they are still accomplishing their study in drafting their related concepts and should include other variables that are not discussed in this study.

REFERENCES

[1] Alampay, L. P., & Jocson, M. R. M. (2019). Attributions and attitudes of mothers and fathers in the Philippines. Parenting, 11(2-3), 163-176.

[2] Auditor, N., & Mutya, R. C. (2022). Competence of Secondary Science Teachers in Developing Self-Learning Modules (SLMs). Jurnal Pendidikan Progresif, 12(2), 569- 590.

[3] Bååth JA. (2019). Distance students' learning - empirical findings and theoretical deliberations. Distance Educ. 2019; 3(1): 6-27. DOI: 10.1080/0158791820030102

[4] Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. Human behavior and emerging technologies, 2(2), 113-115.

[5] Dangle, Y.R. & Sumaoang, J. (2020). The implementation of modular distance learning in the Philippines secondary public schools. 3 rd International Conference on Advanced Research in Teaching and Education. Dublin Republic of Ireland.

[6] DepEd. (2020). Adoption of the basic learning continuity plan for S.Y. 2020-2021 in the light of Covid-19 public health emergency.

IJAMS

[7] Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). COVID-19 and remote learning: Experiences of parents with children during the pandemic. American Journal of Qualitative Research, 4(3), 45-65.

[8] Geverola, I. J., Mutya, R. C., Siason, L. M. B., & Bonotan, A. (2022). Challenges and struggles of public senior high school science teachers during the new normal. Journal of Research, Policy & Practice of Teachers and Teacher Education, 12(1), 49-68.

[9] Goodall, J., & Montgomery, C. (2019). Parental involvement to parental engagement: A continuum. Educational review, 66(4), 399-410.

[10] Montoya, S. (2020). Nurturing education at home in the midst of a health crisis: how SDG indicator 4.2. 3 can help guide where more support is needed. UNESCO Institute for Statistics, 9.

[11] Moore MG. (2019). Toward a theory of independent learning and teaching. J Higher Educ. 2013;44(9):66-9. DOI: 10.2307/1980599

[12] No Child Left Behind Act (NCLB), 20 U.S.C. 70 § 6301 et seq. (2002).

[13] Owusu-Fordjour, C., Koomson, C. K., & Hanson, D. (2020). The impact of Covid-19 on the learning - The perspective of the Ghanaian student. European Journal of Education Studies.

[14] Parczewska, T. (2021). Difficult situations and ways of coping with them in the experiences of parents homeschooling their children during the COVID-19 pandemic in Poland. Education 3-13, 49(7), 889-900.

[15] Peters O. (2019). Theoretical aspects of correspondence instruction. In: Mackenzie O, Christensen EL, editors, The changing world of correspondence study University Park, PA. Pennsylvania State University; 2019.

[16] Tria. J.Z. (2020). The COVID-19 pandemic through the lens of education in the Philippines. The new normal. International Journal of Pedagogical Development and Lifelong Learning. 1(1), 1-4

[17] UNESCO (2021). Distance learning strategies in response to COVID-19 school closures. UNESCO COVID-19 Educ. Response 2020, 2, 1–8. Educ. Sci. 2021, 11, 302 17 of 17

[18] Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., ... & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. The Lancet Child & Adolescent Health, 4(5), 397-404.

[19] Wajdi, M. B. N., Kuswandi, I., Al Faruq, U., Zulhijra, Z., Khairudin, K., & Khoiriyah, K. (2020). Education policy overcome coronavirus, a study of Indonesians. EDUTEC: Journal of Education and Technology, 3(2), 96-106.

[20] World Health Organization (2020). Coronavirus disease (COVID-19) advice for the public: Advocacy. https://www.who.int/emergencies/diseases/novel-coronavirus2019/advice-forpublic/healthy-parenting

[21] Yamamoto, Y., Holloway, S. D., & Suzuki, S. (2019). Parental engagement in children's education: Motivating factors in Japan and the US. School Community Journal, 26(1), 45-66

[22] Zainuddin, Z., Perera, C. J., Haruna, H., & Habiburrahim, H. (2020). Literacy in the new norm: stay-home game plan for parents. Information and Learning Sciences, Vol. 121, No. 7/8, pp. 645-653.

AUTHOR'S PROFILE

ERELYN P. PADILLO

Efrelyn P. Padillo is 39 years old and born at Darapuay Bansalan, Davao del Sur. She is the second child in the family of Narciso Patindol and Lilia Patindol. She has a dream to impart her knowledge and skills to help young people become good individuals, she hopes to be a valuable member of the community. In 2010, she obtained her Bachelor of Elementary Education degree from the University of Mindanao Digos Branch. She took her Licensure Examination for Teachers in 2011 at Davao City. She is fortunate to have a happy marriage to Juneil D. Padillo is blessed with 2 children namely Zea Chanel and Nhel.

Efrelyn P. Padillo taught professionally for 5 years at ATO Padada Christian School. And presently, teaching at Buri Elementary School in Buri Matanao, Davao del Sur for 8 joyful and productive years. Additionally, she served as a Grade 2 adviser for the duration of her employment with the Department of Education. She is currently pursuing a Master of Arts in Educational Management at Rizal Memorial Colleges, Inc. in Davao City.

Efrelyn P. Padillo has a passion in sport and engages herself in different events that will help young individuals to develop their self-confidence. She is a dedicated educator with a high admiration for postering critical thinking and academic excellence of the learners.

Efrelyn P. Padillo believed that every goal has its moment to shine and be great at its own pace in life. Be efficient and creative in all that you accomplish.