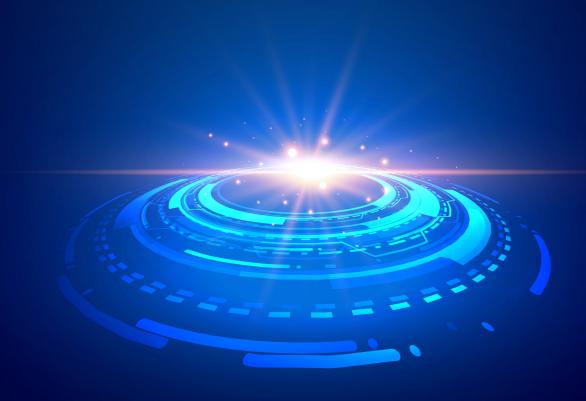


AMERICAN JOURNAL OF INTER-DISCIPLINARY RESEARCH AND INNOVATION (AJIRI)

ISSN: 2833-2237 (ONLINE)

VOLUME 1 ISSUE 1 (2022)



INDEXED IN





Volume 1 Issue 1, Year 2022 ISSN: 2833-2237 (Online) DOI: https://doi.org/10.54536/ajiri.v1i1.460 https://journals.e-palli.com/home/index.php/ajiri

Digital Divide on Emergent Readers in the Last Mile Schools

Charina C. Oliver1*

Article Information

Received: August 04, 2022

Accepted: August 10, 2022 Published: August 13, 2022

Keywords

Digital Divide, Digital Learning Devices, Emergent Readers, Last Miles Schools, Reading Skills Development

ABSTRACT

This study explored how the teacher-participants described the experiences of the emergent readers from the last miles schools on the digital divide in the Nueva Ecija Division, Philippines, which are composed of Congressional Districts I, II, III, and IV. The study used a Qualitative Descriptive research design, with in-depth interviews conducted with ten (10) teacher-participants to generate qualitative data. Given the challenges and consequences of the digital divide on emergent readers, most pupils lag in their reading skill development. Teachers find it is hard to establish communication during distance learning without digital learning tools and an internet connection. Young pupils were unable to enhance their skills through distance learning without the involvement of parents and the usage of technology. The study's findings revealed four (4) themes: (1) exploring the background of the emergent readers, (2) calculating the learning process, (3) facing challenges and impacts, and (4) directing the digital divide as they form the central idea on how digital divide affects the lives of the emergent readers in the last mile schools amidst the pandemic. The researcher proposed a reading program using the rechargeable portable audio speaker as a strategy for the reading development skills of the emergent readers.

INTRODUCTION

The 2019 COVID pandemic has affected schools around the world. The rapid spread of the virus forces the closure of schools that shift schools to home learning settings. The use of communication technology becomes essential between teachers and pupils to continue their education and minimize the possible harsh effect in the future. However, it raises concerns about the availability of digital tools. The COVID-19 pandemic widens the gap in reading skills for the emergent readers in the last mile schools. It will affect their future academic performances in different academic subjects and life success. It is essential to determine the effects of the digital divide on the emergent readers in the last mile schools to address the challenges and help improve the reading development of the emergent readers for their life success.

According to a UNICEF (2020) study, a lack of connectivity limits pupils' ability to connect online. The next generation is at risk due to a lack of internet access. The digital gap occurs when children do not complete schoolwork due to a lack of internet or device access. It is a contributor to these disparities between educational systems. COVID-19 demonstrated that access to computers and the internet is now vital to children's capacity to access education, underscoring the urgent need for a national effort to overcome these inequalities (Lake and Makori, 2020).

Thus, Padlan (2020) explained that everyone is affected by the COVID-19 pandemic, but the impacts are greater felt in communities where privilege does not extend. The pupils are being denied opportunities to experience quality education and were not well-equipped to have computers, internet connection, and devices for virtual learning.

Moreover, Esteban and Cruz (2021) confirmed the

existence of the digital divide since the majority of the household in the communities of the remote school do not have electricity, internet connection, and communication technology for children's education.

Hence, the researcher described the digital divide among emergent readers in last mile schools during the COVID-19 pandemic, where distance learning is applied.

LITERATURE REVIEW

Teachers around the country are witnessing the pupils' difficulty in reading. School cancellations and remote instruction made learning to read much more difficult, particularly for young, low-income pupils with no suitable technology at home or an adult who could assist them throughout the day. Its critically informed perspective enables educators, policymakers, and parents to make sense of the pupils' digital experiences as they play and learn (Barshay, 2021).

Also, Lamneck (2021) indicated that pupils and teachers now communicate primarily through digital platforms, and their mutual success relies on the performance of these digital learning tools. Most pupils do not require computational power, just enough to connect to the internet, get instructions from professors via their school's virtual classroom platform, and complete and submit homework.

Likewise, Ripton (2021) observed that even being the best teacher in the world is not always enough. Access to technology is vital in distance learning. Technologies access is critical for student learning and eventual educational achievement, from working on school assignments and viewing online tutorials to connecting with teachers and successfully using current computer technology. Pupils affected by the digital divide lack proper internet access and technological tools for digital competence.

¹ Ilocos Sur Polytechnic State College, Santiago, Ilocos Sur, Philippines.

^{*}Corresponding author's e-mail: charinacoliver2017@gmail.com



Moreover, Adhikari (2018) implied that educational institutions and governments are now investing substantially in novel learning technology, called "smart education" or "21st-century teaching and learning." Specifically, the research study has given a much-needed empirical investigation to address the issues posed by technology-mediated teaching and learning problems. It is important now that more and more educational institutions adopt digital learning tools and incorporate them into their teaching methods.

Additionally, Taghizadeh and Yourdshahi (2019) concluded that stakeholders and educational officials acknowledge technology in instruction, resulting in the young learner in classrooms. It revealed a positive trend toward digital in young learner classes that using technological tools can increase children's interest and being taught, learn more, and improve communication skills.

However, Barzillai and Thompson (2018) concluded that reading on digital devices, which are frequently interrupted and disrupted by interruptions, whether in the form of hotspots, games, or links, presents several challenges to maintaining focus and influences the interactions that share around reading. Thus, learning to read in a digital environment entails a multidimensional issue space comprising learner, reading goals, and digital setting, all of which are embedded within a societal context.

Critical Links (2020) stated that while most developed countries' schools have wireless, high-speed digital networks and pupils own their computers outside school hours, millions of pupils in developing countries are learned in challenging environments with connectivity. It creates a tremendous disparity and has an unfair competitive edge over those who do not have up-to-date technology and the finest accessible learning aids.

Similarly, Obana (2020) discussed that the most significant barrier to schools switching to online learning is a disparity. The advances in digital technology are steady internet connections for many Filipino homes. Even individuals with internet connections face infrastructure challenges, such as the disparity in internet speeds among areas.

The Department of Education (DepEd) issued Department of Education Memorandum No. 59, series 2019, in May 2019, titled "Prioritizing the Development of the Last Mile Schools in 2020–2021: Reaching Out and Closing the Gap" to formalize the efforts and make official the action taken following the Last Mile Schools programs. It listed the signs that should be used to identify a school as a Last Mile School and the specific programs, projects, and activities that address the requirements of last mile schools Ng and Kalihim (n.d.).

Whereas, Bacungan (2020) reported that the goal is to provide Internet access and laptop computers to all last-mile schools. We have already planned them. At least 3,000 of the 9,000 last-mile schools do not have power, and we intend to provide it. However, many last-mile schools lacked the required gadgets and internet access.

In addition, Hathaway (2020) reported that learning to read is one of the most difficult that schoolchildren undertake. Prior study has indicated that pupils in kindergarten to second grade decline their reading ability for about a month over the summer months before returning to school. Many public schools struggle to set upon line learning for new readers, and many people in disadvantaged areas do not have access to digital tools to assist in enhancing the skills of the emergent readers, but the expenses in accessing digital technologies are a burden to the family, teachers, and the public schools. Accessing digital technologies are a burden to the family, teachers, and the public schools.

Thus, Somejo (2021) reported that other government organizations have to chip in, so that disadvantaged children do not have such a tough time getting to school when face-to-face lessons are eventually permitted. These pupils will also require textbooks, laptops, and other instructional materials. It is only fair that the government invests more resources in these forgotten and neglected communities to achieve inclusive progress. More than a million pupils will benefit from improved access Last-Mile Schools program. It is the path to a brighter future for pupils.

Furthermore, Hamilton et al. (2020) recommended that teachers, particularly those dealing with the most vulnerable children, require professional development to assist them to manage the problems of remote learning. Because some form of distance learning is likely to continue, educators will require resources and strategies to help pupils stay motivated and engaged while learning remotely, as well as guidance to provide pupils with hands-on learning opportunities."

The analysis of the impact of the COVID-19 pandemic on educating and learning around the world concludes that, while various studies have been conducted, suitable education and plan of action for different grade levels of higher secondary, middle, and primary education need to be explored further in developing countries. Internet bandwidth is generally low, with fewer connection points, and data packages are expensive in contrast to people's income in many developing nations, making accessibility and affordability insufficient. The cost and accessibility of educational tools for all learners from all economic backgrounds has been noted as a concern, for which educational tool developers might focus on personalization. Intervention at the policy level is also critical. Given the current situation, education systems throughout the globe, including Bhutan, must engage in teacher professional development, particularly in ICT and effective pedagogy. The other area of study and development is to make online education more creative, imaginative, and interactive by using user-friendly tools. This would help and prepare the school system for such future uncertainty. The pandemic has shown that instructors and learners should be trained on using various online educational technologies. When normal courses resume following the COVID-19 pandemic,



instructors and pupils must be encouraged to continue using online tools to improve teaching and learning (Pokhrel and Chhetri, 2021).

This would help the researcher in conducting the study wherein previous literature and studies on the digital divide provides in-depth overview of the research.

Research Design

This study applied a basic qualitative descriptive research design. The teacher-participants described the emergent

readers in the last mile schools as the subject of this study on their lived experiences on the digital divide. This study found the what, where, and when experiences and events of the teacher-participants, which is significant in a qualitative descriptive study.

Presentation of Teacher-Participants

The researcher presented the ten (10) teacher-participants who participated in this study using codes for anonymity.

Code and Demographic Profile of the Teacher-participants

Code	Age	Sex	Civil Status	Highest Educational	Years in Public	Grade Level	Number of
				Attainment	Teaching		Pupils
Red	26	Female	Married	With MA units	3	K	18
Blue	28	Female	Married	MA Graduate	4	Grade 1	21
Yellow	27	Female	Single	With MA units	4	Grade 1	17
Green	26	Female	Married	With MA units	3	K	20
Orange	28	Female	Married	MA Graduate	3	Grade 1	23
Purple	27	Female	Married	With MA units	3	K	22
White	27	Female	Married	With MA units	3	K	19
Brown	29	Female	Single	MA Graduate	4	Grade 1	18
Black	26	Female	Single	With MA units	3	K	20
Gray	26	Female	Married	With MA units	3	Grade 1	24

Research Instrument

The research instrument is composed of a three-part questionnaire to gather the data. The researcher used a structured interview and follow-up questions to understand the digital divide among emergent readers in last-mile schools. The first part describes the experiences of the emergent readers on the digital divide by the teacher-participants. The second part describes how the digital divide may affect emergent readers. The third part describes how the teacher-participants address the digital divide among the emergent readers. The researcher provided an intervention program based on the gathered data from the teacher-participants.

As a Qualitative Descriptive Research Design, the study presented the thematic analysis to provide a comprehensive description of the digital divide among

the emergent readers in the last mile schools.

RESULTS AND DISCUSSION

In this study, findings are interpreted and presented according to four (4) major themes as follows: exploring the background of emergent readers, calculating learning performance, facing challenges and impact, and directing the digital divide derived from the analyses of the interview of the teacher-participants regarding the emergent readers' experiences on the digital divide.

Each theme has sub-parts that serve as bases for forming the conceptual paradigm.

Exploring the Background of Emergent Readers (See Appendix 1)

The background of the emergent readers in the locale

Theme	Sub-themes	
1. Exploring the Background of	f 1.1 Family Structure	1.1.1 Low Income
Emergent Readers		1.1.2 Extended Family Members
		1.1.3 Parents' Less priority for Education
	1.2 Learning Attitude of	1.2.1 Pleasant Behavior
	Emergent Readers	1.2.2 Unpleasant Behavior

revealed two (2) themes: family structure and learning attitude

Theme 1: Exploring the Background of Emergent Readers

The majority of the emergent readers are from lowincome households. Parents could not support digital learning devices in distance learning during the pandemic of their children. Parents work in the mountains to feed the family and provide other necessities. The emergent readers are likely to live with their extended families. The grandparents care for the children, while the working aunts and uncles assist in meeting their needs. Several distant relatives are staying in their houses because of work. Parents could not aid the children in learning at home due to their struggles to make ends meet. Parents understand the value of education for their future, yet they are more concerned with their current life.

Sub-theme 1.1 Family Structure Low Income

The majority of the emergent reader's family backgrounds are considered low-income.

As the teacher-participants shared:





Orange – "Most of my pupils are from poor families. Pupils work in the mountains to make charcoals, cut some wild bamboo, or plant some vegetables. Parents could not afford to buy a phone."

White – "Some gadgets are too expensive for the parents to let their child use them. It is not a toy for a child to play according to them."

This findings indicate that most families of the emergent readers belong to the poor and low-income family group.

Extended Family Members

According to the teacher-participants, the emergent readers' household consists of parents, grandparents, aunts, uncles, cousins, adult children, and dependent children.

As the teacher-participants shared:

Green - "Most of my pupils are living with extended family members. They lived with their grandparents, aunts, uncles, cousins, and even relatives stay with them because of work."

Red - "They live together and share on expenses to survive."

This findings indicate that the majority of the emergent readers belong to a nuclear family structure.

Parents' Less Priority for Education

The learning and subsequent educational outcomes are affected when parents do not see education as a priority since they focus more on earning.

As the teacher-participants shared:

White – "The parents also did not get an education, so they think that their son might not be able to top it off because of the hardships of life."

Pink – "Parents prioritize their work instead of teaching the children."

Based on the responses, it can be concluded that most parents' priority is working since they belong to lowincome households and they must work to eat. Sub-Theme No.

Learning Attitude of Emergent Readers Pleasant Behaviors

Young pupils, particularly in Kindergarten and Grade 1, are not yet experiencing regular schooling and are confined to learning at home with the help of their parents and other family members. During home visitation, teacher-participants can connect with them and observe their good behaviors in learning.

As the teacher-participants shared:

Brown – "During the home visitation, the children are happy when we ask them questions about their studies." Purple – "They love using the gadget. Pupils are interested in touching my phone when I visit them."

The responses of the teacher-participants reflect the eagerness of most pupils to learn and go to school. The pupils are curious about the gadgets that are essential for their digital literacy and the needed 21st-century skills of the pupils.

A positive attitude toward learning is a skill that relates to how a child responds when there is a chance to learn. A child with a positive attitude shows enthusiasm, curiosity, or engagement when a learning opportunity occurs. Even if they are uninterested in the subject, a child with a positive attitude engages in the learning activity and willingness to try and learn. This skill is needed because it reveals that children are evolving positive feelings about education and their capability to learn new things.

Unpleasant Behavior

Class management is not easy when teachers and pupils are not together physically. Teachers find it hard to motivate and encourage pupils to focus on their learning process. Teacher-participants observed some negative behaviors of their pupils during distance learning as follows:

Gray – "Most pupils do not want to repeat what is said. They do not listen and do something else like playing." Red – "It is hard when there are long reading tasks, pupils do not finish the tasks, and go through crying instead." The responses reflect that distance learning is not helping young pupils when not guided by their parents at home to focus on their reading. Parental involvement in education is welcome in the pandemic.

Calculating Learning Performance

Theme	Sub-themes				
2. Calculating Learning	2.1 Literacy and Reading				
Performance	Skills				
	2.2 Technological Skills				

Theme 2: Calculating Learning Performance

Calculating the learning performance of the emergent readers in the locale revealed two (2) sub-themes: literacy and reading skills and technological skills.

The majority of the literacy and reading skills of the emergent readers are stall, slow, stuttering, incorrect reading, and wrong pronunciation. The early literacy and reading skills of pupils are delayed. The learning processes are not frequent and adequately guided due to distance learning. The parents and other family members could not sustain the teaching procedure for the children. Since there is not enough reinforcement at home, the reading developments of the pupils are slow. Some pupils are stuttering, reading incorrectly, and pronouncing the words and sound wrong.

Distance learning requires digital learning devices and internet connectivity; however, most emerging readers have poor to average skills in using gadgets. Even though only a few individuals have smartphones, iPads, or tablets, the communities still need an internet provider.

Sub-Theme 2.1 Literacy and Reading Skills

The teacher-participants observed reading development of pupils is stalled, slow, stuttering, incorrect reading, and wrong pronunciation, which shows that majority of the emerging readers are experiencing a digital divide in this time of pandemic since they could not have online classes.





The impacts of COVID-19 are causing new gaps in reading abilities.

As the teacher-participants shared:

Red: "The reading development of my pupils is stalled. Long sounds are difficult for them. Pupils are stuck with the short sound of CVC words."

Green: "It is delayed at their stage now since there is no reading support at home and we do not have frequent reading time."

The teacher-participants qualitative remarks show that most of their pupils' reading skills are not doing great in the pandemic.

Facing Challenges and Impact

Sub-theme 2.2 Technical Skills

The teacher-participants' qualitative remarks show that most of their skills in using digital learning devices are poor and average because of a lack of access to digital tools.

As the teacher-participants shared:

Red – "Unfortunately, most of my pupils have never touched a device. They are unable to operate or play on a smartphone or a laptop. I consider that they have poor skills in using digital learning devices."

White: - "I could say that most of my pupils have poor skills in using digital learning devices. Most families do

Theme	Sub-themes		
3. Facing Challenges and Impact	3.1 Inadequate access, knowledge, and usage of Technological Devices		
	3.2. Difficulty of Learning Lessons		
	3.3 Parents' Lack of Knowledge to Assist Children		
	3.4 Restrained Communication for Assessment		

not have smartphone, a PC, or a tablet. They have no access, so they do not know how to use one."

The findings show that emergent readers have poor skills in using digital learning tools.

The teacher-participants observed their pupils' inadequate access, knowledge, and usage of technological devices are poor to average skills in using digital learning devices while the difficulty of learning lessons are could not adapt to new learnings, which resulted in low academic performances.

Then parents' lack of knowledge to assist children are parents tutorial hubs restrict learners' ability to expand knowledge and hard time in reading and recognizing the alphabet. Lastly, restrained communication for assessment is a lack of learning and limited access to digital learning devices.

Theme 3: Facing Challenges and Impact

A significant problem for schools is identifying their pupils' diverse experiences and responding to the amount of safeguarding concerns that surface when pupils begin to open up to their teachers. It is vital to realize that these issues could occur for any child, not just those previously designated as vulnerable and that many children will have had traumatic experiences. The diverse range of experiences that children have experienced presents a problem in and of itself.

The inequalities will be felt for the foreseeable future, as differences in attainment and physical and mental health will have widened.

In facing the challenges and impact of the digital divide on the emergent readers, there are four (4) sub-themes develop, first, inadequate access, knowledge, and usage of technological devices, next is the difficulty of learning lessons, then the lack of knowledge of parents to assist children, and lastly, restrained communication for assessment.

Most pupils fall behind in their reading skills development since communication is difficult to establish without digital learning devices and internet access during distance learning, where pupils rely on printed modules only.

Some are not attending the two-way radio classes, and few are not home when the teachers visit. The difficulties in learning lessons of the emergent readers stem from their inability to adjust to new learnings in a distance learning environment, resulting in poor academic performance of the pupils. The difficulty of learning the lesson when pupils are physically apart from their teachers and no one guides them at home affects the pupils' reading development and recognizes the alphabet. Teachers must empower parents through tutorial centers.

Sub-theme 3.1 Inadequate Access, Knowledge, and Usage of Technological Devices

The teacher-participants observed that pupils have inadequate access to digital learning devices to attend online learning, which impacts the digital divide on the reading skills of the emergent readers.

As the teacher-participants shared:

Purple - "Only a few have gadgets."

White - "No gadgets for online."

Pink - "No internet for online learning."

The digital divide in last mile schools could not conduct online learning for the pupils because most pupils do not have gadgets and no internet access in their areas.

Green – "Young pupils have fallen behind on what they should have learned in reading. If parents or other family members fail to encourage the children to read regularly, home learning is not helping the child's reading development. If we have gadgets and the internet, they will improve their reading skills."

According to some teacher-participants, most of the pupils have no digital learning devices that they could use to conduct online classes or learn from the downloaded educational programs.

Sub-theme 3.2 Difficulty of Learning Lessons

The digital divide on digital learning devices affects the



learning adaptability of the pupils in the last mile schools. Pupils need regular class discussions and lectures from their teachers to learn during the pandemic with digital learning tools.

According to some teacher-participants, the effects of COVID-19 are producing new gaps in reading abilities. Pupils in school districts that do poorly on traditional standardized exams took longer to acquire their reading abilities in 2020, falling further behind their peers.

As the teacher-participants shared:

Yellow – "Since we are using printed modular, however, some parents could not read and write. The pupils are not learning in this new setup. They are slowly developing their learning process without regular or daily instruction from teachers. We need gadgets and internet access for them to acquire new learnings every day."

Purple – "I do not think my pupils are learning enough. It is hard for young pupils to learn at home without proper guidance. If we only have online classes, the pupils can adapt and learn more. We need digital learning devices and internet access, but parents here are concerned about food on the table and shared by the whole family. They are poor, and gadgets are luxury to them that they could not afford."

The teacher-participants observed most of the pupils lack learning since there are no digital learning devices and an internet connection. The pupils are unable to cultivate necessary skills and are not updated on school requirements and activities, which impact the digital divide on emergent readers' academic performance.

Blue - "Regular teaching and learning process will save my pupils effectively, but I could not help without digital devices at their homes."

Black - "Learning is slow for my pupils since different factors affect their development as a child outside the school."

The teacher-participants' qualitative remarks show that most of the pupils are not learning effectively in remote learning since their learning environments, family support, and technology affect the abilities of pupils to learn.

Gray – "Without digital learning devices, pupils are learning slowly, resulting in low academic performance. It is sad, but there are things beyond our control as teachers - - there are needs we cannot provide - - like a gadget for each pupil. We need the support of everyone in the community, particularly the local government helps us improve the teaching and learning of pupils in the pandemic or even beyond the COVID-19."

Brown – "I am trying to find ways to help my pupils improve, but they are performing low since they could not read fluently - - and so their families, which makes it hard for them to improve their learning and perform well. Our situation in distance learning is devastating since we do not have sufficient digital tools and internet to have online classes, then - - maybe their academic performance is better."

The findings show that some of the pupils are too slow to learn or not learning at all because of having no communication technology, there is no follow-up about the lessons from the parents, or due to their young age, it is difficult to learn at home due to distractions.

Sub-theme 3.3 Parent's Lack of Knowledge to Assist Children

The teacher-participants observed pupils had restricted the ability to expand their knowledge when not accessing digital learning devices to attend online learning, which impacts the digital divide on the reading skills of the emergent readers.

Yellow - "The opportunity to learn effectively is minimal." Pink - "They are learning to write and count but not in reading."

Brown - "Most of my pupils are slowly expanding their knowledge."

The qualitative remarks of the teacher1participants suggest that most of the pupils are slowly improving their knowledge. The digital divide in last-mile schools impacts the pupils' ability to enhance their skills.

According to several teacher-participants, school closures impact emergent readers' learning development, notably in reading, because pupils no longer have access to digital learning gadgets to utilize while learning at home.

Sub-theme 3.4 Restrained Communication for Assessment

Communication is needed in establishing the teacher and the pupil to teach and learn during the pandemic. Communication technology is limited in most areas because most families cannot buy one or have no internet access.

White—"Distance learning needs the use of digital learning devices to enable and continue providing good education, yet most of my pupils lack one, making communication with them and their families problematic."

Blue – "This pandemic needs constant communication with my pupils, but most of their families don't have any gadgets, so communication is difficult to establish. It is challenging connecting with them."

The findings show that the digital divide on reliable communication impedes the development of better relationships between teachers and pupils, which is critical in the teaching and learning process in any possible learning environment of last mile schools.

Theme 4 Directing Digital Divide

The background of the emergent readers in the locale revealed three (3) sub-themes as follows: localized reading activities, home visitation, and increased parental involvement and orientation.

The teacher-participants utilize localized reading activities through encouraging reading pantries, family reading together, conducting home visitation weekly and regularly, and increased parental involvement and orientation by building a strong partnership to facilitate learning, establish constant communication, and manage the printed materials.



Directing Digital Divide

Theme		Sub-themes	
1. Exploring the	Background of	4.1 Localized Reading Activities	4.1.1 Reading Pantry
Emergent Readers		_	4.1.2 Two-Way Radio Classes
		4.2 Home Visitation	
		4.3 Increased Parental	
		Involvement and Orientation	

Teacher-participants conduct localized reading activities to improve the reading skills of emergent readers without technology. The reading pantry bridges the digital gap by providing books and reading materials for the parents and children to read together. The two-way radio classes use a low technology that connects the teachers and the pupils for their teaching and learning tools place during the pandemic. The teacher-participants conducted a weekly home visitation that provided opportunities for teachers, parents, and the pupils for "kamustahan." It helps to know the difficulties experienced by both the pupils and the parents learning at home. The teachers could address the situation immediately and manage the problem effectively. The teacher can assess the pupils learning development, particularly in reading.

This pandemic demands help from everyone to provide quality education for the children, and parents are the most influential people in their children. Distance learning will benefit from a solid relationship between teachers and parents, especially when there is no device to allow regular communication between teachers and pupils. It will not matter how many appealing reading resources are there if parents do not teach their children how to read. Everyone must make sacrifices to increase literacy, especially reading, which will open doors to new knowledge and abilities that will help them succeed in life. The researcher proposed using a rechargeable portable audio speaker and reading material.

Sub-theme 4.1 Localized Reading Activities Reading Pantry

The teacher-participants are conducting a reading pantry, particularly on young children, which helps the teacher-participants to facilitate learning to the pupils even without available high technology.

As the teacher-participants shared:

White - "Reading pantry helps the parents and the pupils enjoy choosing materials to read at home."

Red - "Reading pantry encourages the parents and pupils to read more."

The respondents' qualitative remarks show that the reading pantry is encouraging for the parents and the pupils to find books and other reading materials that they can read together at home.

Reading pantry helps to bridge the gap of learning for the pupils in the last mile schools.

Two-Way Radio Classes

According to some teacher-participants, utilization of the two-way radio helps to provide continuous learning for the pupils, though it is a slow process. Those pupils regularly attending the two-way radio classes are improving compared to those who are not always present. Most of the pupils are happy participating in the class discussion. The pictures in the reading materials guide them to recognize the alphabet, make the sounds and read syllables, short words, and sight words. The spelling and reading come together that the pupils enjoyed most such as b-a ay ba, b-e ay be, d-o-g is a dog, c-a-t is cat, and so on.

As the teacher-participants shared:

White – "I have two-way radio classes every other day for two hours, but it is not enough. I have to conduct home visitation to connect with my pupils personally and reach out to them. They enjoy the attention -- some are shy but willing to read along with me."

Purple – "Reading with my pupils during the two-way radio classes and home visitations help them to have progressed - - what is important is we have a regular setup for them not to miss so they could learn more. We must follow a routine... it is a must for them to know what to do every day. It is part of the discipline I have to impose." The findings show that two-way radio classes help the continuous learning of the pupils, but not everyone is attending.

Supplementary Materials

To teach their pupils and encourage active learning, the teacher employs a variety of methods with the help of the parents. Over time, new ways and techniques have emerged. Techniques are introduced into the subject of education, and teachers are employing tools to facilitate learning. Visual tools pique pupils' interests and make it easier for teachers to convey subjects. The use of visual aids is common such as teaching tools that are employed in the classroom to help pupils learn more effectively.

Orange – "Parents' support is important. I provide my pupils with supplementary reading materials for parents and children to read together. The reading materials are short and eye-catching. The pupils must enjoy reading time. I ask the parents to let the child have a regular reading time in a quiet area in their home everyday."

Gray – "To enhance my pupils reading skills...I provide them with attractive reading materials. It should catch their attention for them to read. I put some pictures or something they can color, too. I want them to enjoy the reading materials so they will not get bored. I ask the parents to be patient because the child needs to read comfortably."

According to the findings, incorporating visual aids as a teaching strategy stimulates thought and enhances the learning environment. Visual aids use to replace





boring learning settings. When visual assistance sessions are directly related to course material, pupils find them valuable and relevant.

Sub-theme 4.2 Home Visitation

Home visitation is essential and brings reading materials, especially when pupils lack access to technology and the internet. Finding ways to interact with pupils will be an ongoing effort long after the COVID-19 and the schools are open.

As the teacher-participants shared:

Green - "What we need as a teacher is to be with our pupils to learn better, and I can do that when I visit them. I spend time connecting and reading with them. It is a precious time, sharing quality time learning together. They learned the printed modules, and I learned about them. I find it sad, but we must be grateful for every chance to learn.

Blue – "To ensure that they are learning the lessons - - and improve their reading, I have to visit them and see what is happening to their home learning. It is a slow process, but at least something positive is going on. Patience, and a lot of patience and determination to reach each one of them, but seeing them smiling and willing to learn touches my heart. Life is not easy with them and helping them to learn might change their life course."

The findings show that home visitation is the most effective way to teach the pupils to read, but the time constraints hinder the fast reading development of the pupils.

Sub-theme 4.3 Parent Involvement and Orientation

The respondents employed the involvement of parents by building a strong partnership to facilitate learning, establish constant communication, and manage the printed materials, which is an effective approach to support the reading development of the emergent readers in the new normal.

The teacher-participants apply strategies such as building a strong partnership with parents, which show their support for the emerging readers to bridge the gap of the digital divide they are experiencing during distance learning.

As the teacher-participants shared:

Green – "The parents' involvement is the biggest factor to support the pupils' learning in this time of the pandemic. We must work together because - - it is the only way for the pupils to gain knowledge and improve academically. Partnership with parents in every step of the way to guide the children is essential."

Black – "As a teacher, I have to work double time with the parents for them to be involved in supporting the learning process of their children in the pandemic."

The teacher-participants utilized a parents tutorial hub to assist regarding the lessons in the printed modules and guide parents on the basic techniques to help their children read, which facilitates learning to the pupils even without available high technology.

As the teacher-participants shared:

Purple - "Helping the parents to help their children is important in remote learning."

Pink - "Parents tutorial is helpful to us teachers to facilitate learning to our pupils at their homes."

Green - "Parents value the parent tutorial since it allows them to learn with their children."

Black - "Parents tutorial is a learning experience for both parents and pupils."

The findings revealed that parents tutorials of the teachers help improve the reading development skills of the pupils at home.

Proposed Intervention Program

The researcher is concerned with improving the reading skills of the pupils during the closure of schools amid the COVID-19 pandemic. At present, only partnerships with parents, home visitation, and two-way radio classes are conducted to facilitate the learning since most of the families in the community have no digital learning devices, and internet connection is not available in the area.

The researcher proposed a portable intervention reading program to apply for a reading program with the emergent readers entitled "P.R.P. or Portable Reading Program." (See Apeendix 2)

The researcher will utilize reading materials with colorful pictures as a guide in reading while the emergent readers listen to the rechargeable portable audio speaker.

It will help the pupils develop listening and speaking skills in this reading program using the rechargeable portable audio speaker and reading materials.

The P.R.P. as a reading program will be delivered weekly to the emergent readers together with the reading materials. The teacher will explain how to use a rechargeable portable audio speaker together with the reading materials.

The rechargeable portable audio speaker is economical and convenient to use by emergent readers. They can use it at their own pace to read anytime.

CONCLUSIONS

The following conclusions were drawn as a result of the findings:

- 1. The majority of emergent readers come from low-income families. They live with their extended families. Parents are unable to aid their children's learning at home because of financial issues. Amid the pandemic, emerging readers' learning attitudes include both positive and negative behaviors during distance learning.
- 2. The emergent readers' literacy and reading skills are stalls, slow, stuttering, incorrect reading, and wrong pronunciation when calculating their learning performance. Emerging readers' technical skills in using gadgets range from poor to average. Even though just a few pupils own smartphones, iPads, and tablets, the majority do not have one, and communities still need an internet provider.
- 3. Most pupils lag in their reading skills development because of the challenges and consequences of the digital divide on emergent readers, as communication is difficult



- to establish without digital learning devices and internet connection during distance learning.
- 4. Emergent readers have difficulty learning lessons because they are unable to adjust to new learnings in a distance learning setting, resulting in low academic achievement. Due to parents' lack of competence, pupils have difficulty reading and recognizing the alphabet. Teachers must use tutorial hubs to empower parents. Without the involvement of parents and the use of technological devices, pupils will be unable to enhance their knowledge through distance learning. Parents and teachers will have a problem supporting children in improving their reading skills.
- 5. Due to limited access to digital learning devices, the restricted communication for assessment resulted in a lack of learning. Through reading pantries and two-way radio classrooms, teachers engage localized reading exercises to develop the reading skills of emergent readers. To help their pupils learn, the teachers performed weekly home visits and boosted parental involvement and orientation.

 6. As a strategy for developing the reading skills of the emergent readers, the researcher proposed a reading program using modules paired with a rechargeable portable audio speaker.

REFERENCES

- Adhikari, J. (2018). Bring Your Own Devices Classroom: Issues of Digital Divides in Teaching and Learning Contexts. https://mro.massey.ac.nz/bitstream/handle/10179/14111/02_whole.pdf?sequence=2&isAllowed=y
- Bacungan, I.(2020).DepEd admits last-mile schools not ready to go online Tech Beat Philippines. http://www.techbeat.ph/deped-admits-last-mile-schools-not-ready-to-go-online/
- Barshay, J. (2021). America's reading proficiency scores were dropping before the pandemic. 366800351160. https://hechingerreport.org/americas-reading-problem-scores-were-dropping-even-before-the-pandemic/
- Barzillai, M. & Thompson, J.(2018). View of Children learning to read in a digital world First Monday, V23(10),https://journals.uic.edu/ojs/index.php/fm/article/download/9437/7600 doi: http://dx.doi.org/10.5210/fm.v23i10.9437
- Critical Links (2020). The future of learning: how to bridge the digital divide on education Critical Links. https://www.critical-links.com/2020/11/28/the-future-of-learning-how-to-bridge-the-digital-divide-on-education/
- Esteban Jr., A. M., & Cruz, M. J. P. (2021). Digital Divide in Times of Pandemic among Teacher Education Pupils. OALib, 08(04), 1–12. Open Access Library Journal > Vol.8 No.4, April 2021 https://doi.org/10.4236/oalib.1107323 https://cutt.ly/GXyAw0o
- Hamilton, L. S., Kaufman, J. H., & Diliberti, M. K. (2020). Teaching and Leading Through a Pandemic: Key Findings from the American Educator Panels Spring 2020 COVID-19 Surveys. Rand.org; RAND Corporation. https://www.rand.org/pubs/research_

- reports/RRA168-2.html
- Hathaway, B. (2020). Researchers to measure "coronavirus slide" in children' reading skills. YaleNews. https://news.yale.edu/2020/04/17/researchers-measure-coronavirus-slide-children-reading-skills
- Lake, R., and Makori, J. (2020). The Digital Divide Among Pupils During COVID-19: Who Has Access? Who Doesn't? | Center on Reinventing Public Education. (2020). Crpe.org. https://www.crpe.org/thelens/digitaldivide-among-pupils-during-COVID-19-who-hasaccess-who-doesnt
- Lamneck, K. (2021). Class is in Session: Education in the Digital Age. Forbes. https://www.forbes.com/sites/forbestechcouncil/202 1/11/11/class-is-in-session-education-in-the-digit al-age/?sh=47f609092f65
- Ng, T., & Kalihim, P. (n.d.). Information and Communications Technology Service (ICTS). https://authdocs.deped.gov.ph/ wp-content/uploads/2021/09/FINAL-06-Prioritizingthe-LMS-0921115-20210908.pdf
- Obana, J. (2020). What will schools look like under the "new normal"?. Grant Thornton Philippines. https://www.grantthornton.com.ph/insights/articles-and-updates1/from-where-we-sit/what-will-schools-look-like-under-the-new-normal/
- Padlan, N. (2020). Bridging Digital Divide in the time of COVID-19 Pandemic - make sense Philippines. (2020, July 21). Makesense Philippines. https://philippines. makesense.org/2020/07/21/bridging-digital-divide-inthe-time-of-COVID-19-pandemic/
- Pokhrel S, Chhetri R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. Higher Education for the Future. 2021;8(1):133-141. doi:10.1177/2347631120983481
- Ripton, J. (2021). How Teachers Can Narrow the Digital Divide in Their Classrooms. *PowerSchool.* https://www.powerschool.com/blog/teachers-can-narrow-digital-divide-classrooms/#:~:text=Teachers%20 who%20want%20to%20help,how%20to %20get%20 proper%20access.
- Somejo, M. (2021). Last mile schools | The Manila Times. Retrieved August 12, 2022 from https://www.manilatimes.net/2021/06/01/opinion/las t-mile-schools/1801422
- Taghizadeh, M., & Yourdshahi, Z. H. (2019). (PDF)

 Integrating technology into young learners' classes:

 Language teachers' perceptions. Retrieved August
 12, 2022 from https://www.researchgate.net/
 publication/337923637 __Integrating_technology_
 into_young_learners'_class es_language_teachers'_
 perceptions
- UNICEF, (2021) Filipino children continue missing education opportunities in another year of school closure. (2021). *Unicef.org.* https://www.unicef.org/philippines/press-releases/filipino-children-continue-missing-education-opportunities-another-year-school. https://www.unicef.org/philippines/press-releases/filipino-children-continue-missing-education-opportunities-another-year-school



Appendix 1: Themes and Sub-Themes of The Data Analysis

Theme	Sub-Themes	
1. Exploring the Background of	1.1 Family Structure	1.1.1 Low Income
Emergent Readers		1.1.2 Extended Family Members
		1.1.3 Parents' Less priority for
		Education
	1.2 Learning Attitude of Emergent	1.2.1 Pleasant Behavior
	Readers	1.2.2 Unpleasant Behavior
2. Calculating Learning Performance	2.1 Literacy and Reading Skills	
	2.2 Technological Skills	
3. Facing Challenges and Impact	3.1 Access, Knowledge, and Usage of	
	Technological Devices	
	3.2. Difficulty of Learning Lessons	
	3.3 Parents' Lack of Knowledge to	
	Assist Children	
	3.4 Restrained Communication for	
	Assessment	
4. Directing Digital Divide	4.1 Localized Reading Activities	4.1.1 Reading Pantry
		4.1.2 Two-way Radio Classes
	4.2 Home Visitation	
	4.3 Increased Parental Involvement	
	and Orientation	

Proposed Portable Reading Program

Target Goals	Proposed Activities	Materials to Prepares	Time Frame	Success Indicator
Recognize the	Describe the letter in the	1. Two-way radio	3 times a	1. The emergent readers know
letters of the	picture	2. Colorful printed	week for 1	the letters of the alphabet
alphabet		letters of the alphabet	week	through describing them.
				2. Home visitation will validate
				the status of each emergent
				reader.
Learn the sound of	The teacher will say the	Two-way radio	3 times a	1. The emergent reader could
each letter	letter and the emergent		week for 1	say the sound when the
	reader will follow and do		week	teacher said the letter.
	the same.			
Target Goals	Proposed Activities	Materials to Prepares	Time Frame	Success Indicator
Reading CVC	The teacher will spell	1. Two-way radio	3 times a	1. The emergent readers read
words	CVC words in the	2. Printed CVC words		the CVC words when the
	reading material and	with pictures and	week to 2	teacher spell each letter
	pronounce the words	without pictures	weeks	2. Home visitation will validate
				the reading skills of each
				emergent reader.
Reading other	The teacher will spell	1. Two-way radio	3 times a	1. The emergent readers read
blended sound	words in the reading	2. Printed blended	week for 1	the blended sounds words
words	material and pronounce	sounds words with	week to 2	when the teacher spell each
	the words	pictures and without	weeks	letter
		pictures		2. Home visitation will validate
				the reading skills of each
				emergent reader.
Reading sight	The teacher will spell	1. Two-way radio	3 times a	1. The emergent readers read
words	words in the reading	2. Printed sight words		the sight words when the
	material and pronounce	with pictures and	week to 2	teacher spell each letter
	the words	without pictures	weeks	2. Home visitation will validate
				the reading skills of each
				emergent reader.
Target Goals	Proposed Activities	Materials to Prepares	Time Frame	Success Indicator



Reading phrases	The teacher will read and	1. Two-way radio	3 times a	1. The emergent readers read
01	pronounce the words	2. Printed phrases	week for 1	the phrase alone in the reading
	and the emergent readers	with pictures and	week to 2	material.
	will follow	without pictures	weeks	2. Home visitation will validate
				the reading skills of each
				emergent reader.
Reading short	The teacher will read and	1. Two-way radio	3 times a	1. The emergent readers read
sentences	pronounce the words]2. Printed short	week for 1	the sentence alone in the
	and the emergent readers	sentences with	week to 2	reading material.
	will follow	pictures and without	weeks	2. Home visitation will validate
		pictures		the reading skills of each
				emergent reader.