PREPAREDNESS OF ELEMENTARY SCHOOL TEACHERS IN THE IMPLEMENTATION OF BLENDED DISTANCE LEARNING: BASIS FOR TECHNICAL ASSISTANCE

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The Coronavirus(COVID-19) outbreak became a public health concern which affected normal processes and conduct of almost everything. Education was greatly affected and cannot be conducted on the normal classroom setup. The Department of Education in response to the COVID 19 pandemic develop a system through the Basic Education Learning Continuity Plan (BE-LCP) which ensures that basic education will continue despite the threat imposed by the COVID-19 virus to all school personnel and learners. This ensures that the teachers will safely deliver education and learners will be able to continue learning safely. Distance Learning(DL) was implemented via different modality namely Modular Distance Learning(MDL), Online Distance Learning(ODL), TV Based Instruction(TVBI), Radio Based Instruction(RBI), and Blended Distance Learning(BDL). BDL is a combination of any of the two learning modalities mentioned. At present the District of Sto. Domingo is implementing the MDL.

This study was anchored on the Transactional Distance Theory(Moore) which states the separation or the distance between the teacher and the learner. In this study, dialogue represents the means that the teacher uses to deliver education. While teacher and learner dialogue can be facilitated using different communication media such as the internet that can be used to facilitate asynchronous and synchronous or real-time interaction between teacher and learner.

The study focuses on factors that affect teacher preparedness in the implementation of blended distance learning such as teacher demographics, technology infrastructure or access to technology, application of technology in teaching, technology literacy, and perception of teachers on blended distance learning. The preparedness of teachers in the implementation of blended distance

learning was categorized into delivery and instruction, assessment of learning, learning resources, and learning support.

The result of the study found out that teachers in the district of Sto. Domingo was prepared in the implementation of blended distance learning. While factors such as teacher demographic and technology infrastructure have no relationship with teacher preparedness in the implementation of BDL. Factors like the application of technology in teaching, technology literacy, and perception of teachers on blended distance learning were found to be correlated with teacher's preparedness on the implementation of BDL. These factors showed moderate strength of correlation and were found to be predictors of teacher preparedness, which concludes that teachers that possess a higher level of technology literacy, apply technology in teaching more often, and have a positive perception about BDL will most likely be prepared in implementing BDL.

The study suggests further technical assistance on aspects of utilizing technology in Distance Learning and studies on learner factors to successfully implement BDL and improve learning outcomes at the elementary level.

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INTRODUCTION

The World Health Organization (WHO) declared the novel coronavirus outbreak also known as COVID-19 a public health emergency of international concern on January 12, 2020. In response to this, the President of the Philippines declares the whole nation under the state of public health emergency on March 08, 2020, and issued Proclamation 929 which place the island of Luzon on Community Quarantine on March 16, 2020.

Education was greatly affected, the regular class was immediately stopped for the safety of all concerned. The remaining days of the school year were spent at home to cater remaining school activities which were mostly examinations and remedial classes. During this time teachers and students have no regular classroom meeting everything was conducted remotely and facilitated thru other means of communication such as the use of telephone, text messaging, social media, internet, and other online communication platforms to facilitate distribution and submission of requirements and examinations.

In response to the situation, the Department of Education (DepEd) develop the Basic Education Learning Continuity Plan (BE-LCP) which ensures that basic education will continue despite the threat imposed by the COVID-19 virus to all school personnel and learners. This ensures that the teachers will safely deliver education and learners will be able to continue learning safely.

(*The Basic Education Learning Continuity Plan in the Time of COVID-19*, 2020) states that education will be delivered via distance or remote learning platforms. The Department also recognizes the circumstances and situations of learners across the country and consider factors that may hinder their progress on distance learning. In response, DepEd streamlined the curriculum and come up with the Most Essential

Learning Competencies (MELC) to allow learners and parents to focus on what matters at the moment. Distance or remote learning platforms will utilize internet technology for its ability to facilitate interactive, real-time, or synchronous learning activities. It is also cost-efficient compared to using telephone technology. Online platforms also allow the teacher to deliver materials, assess learners, and provide instructional support electronically which does not require physical presence thus it does not compromise someone's safety.

Distance learning is not a new modality in delivering education, it is already used as an alternative to learners whose circumstances make attending regularly to school difficult. Module-based alternative delivery modality (ADM) is the most common used to learners having difficulty attending regular class at schools. This is also used by the Alternative Learning System (ALS) which caters to out-of-school children and youth who would like to pursue education despite their circumstances. Specifically, the *BE-LCP of DepEd defines distance learning as a learning delivery modality where learning takes place between the teacher and learners who are geographically remote from each other during instruction* and is comprised of different modes namely; modular distance learning, online distance learning, and tv/radio-based instruction.

DepEd BE-LCP determines distance learning modalities considering technology infrastructures of school, community and among all other the capacity of learners, parents, and the teachers to implement distance learning. Technology infrastructures such as the presence of desktop computers, laptops, tablets, smartphones, and internet connectivity are essential in the implementation of distance or remote learning for both teachers and learners. While the school may serve as a learning hub to facilitate learning delivery, its technology infrastructure also plays a significant role in its success to implement remote learning. Internet connectivity plays

the biggest role in facilitating distance or remote learning thus it is important that the learner and teacher have access to this technology. However, internet connection is a challenge by many factors such as the school, teacher, and learner's location, where the signal can determine its connection quality and the additional cost to parents and teachers. Parents' capability to provide instructional support varies thus the teacher must be knowledgeable and skilled enough to reduce its impact on the teaching and learning process.

The implementation of distance learning will be challenged by factors such as socio-economic and health issues. Social issues involve the situation of learners in the marginalized segment wherein most parents are working, unstable sources of income, limited source of income or livelihood resulting from parents working to nearby cities and provinces, lack of education which limits their capacity to support their child in providing necessary materials, gadgets, internet connectivity, and instructional support. Also, health issues prevent teachers, students, and parents to have regular physical meeting or face to face contact due to community restrictions, LGU policies and ordinances, government laws, and organizational limitations and standards in this state of emergency.

Teacher preparedness in the implementation of distance learning at this scale is a key factor in delivering education. Teachers are at the forefront in ensuring the continuity of education. These changes and challenges add a burden to teachers not just ensuring that learners get the desired competencies but as well ensure their health safety, emotional and psychological stability. While training and other related activities will improve the knowledge and skills of teachers, determining who and what particular training should be considered first to prepare the teachers in the implementation of distance learning.

This study helps to explore the underlying factors that have helped teachers in preparing themselves for the implementation of blended distance learning. Blended Learning as Determined by the Department of Education is a learning delivery that combines face to face with any or a mix of online distance learning, and TV/Radio Based Instruction, and Modular distance learning. In this study, Blended Learning will be a combination of Modular and Online distance learning. Factors such as demographics of teachers, technology infrastructures, technology literacy, teacher's application of technology in teaching, and their perception of distance learning are among the key elements in determining teachers' preparedness in implementing blended distance learning. While learners' context varies on the aspects of the provision of instructional support, technology access, family financial capacity, and devices available for learning among all others are evident. The School cannot provide a solution that will address all but rather the schools will address these problems according to the learners' circumstances and thus the solutions will vary depending on the teacher's preparations and capability to implement distance learning. While the Department of Education recognizes the result of the year-end survey for 2020 regarding the concept of blended learning. The survey states that 75% of Filipinos are positive about blended learning at the height of the Covid-19 pandemic. Sto. Domingo District will be implementing a Modular Distance Learning (MDL) supplemented by either Online, TV, or Radio Based instruction. Online Distance Learning will be used for students with internet access. TV and Radio will only be supplementary to Modules due to their limitations. The focus of this study will be the teachers' preparedness in implementing blended distance learning as a basis for providing technical assistance.

Review of Related Literature and Studies

This School Year 2020-2021, DepEd will implement distance learning on a scale never done before due to Public Health Emergency as a result of the threat imposed by the COVID 19 virus. During this time of the pandemic, distance learning will be the modality in delivering education. Instruction can be done using various means such as the use of self-learning modules, TV, radio, internet, and other communication platforms. While the system in place is not new to DepEd, its implementation on a wide-scale may influence teachers on the field to adjust and retool considering that they will be doing it in this magnitude. Implementation of distance learning at this level will replace the regular classroom set-up or the conventional face-to-face teaching and learning.

Distance learning in the context of public elementary schools are challenged in many aspects such as the availability of the internet to both learner and teacher, the necessary hardware such as computers, financial resources to supply all printed materials, learning resources, and among all others the teacher preparation in the implementation of Distance Learning.

Alternative delivery modalities are explored to deliver education on areas that are facing armed conflict, hit by calamities where attending school becomes impossible, and to learners whose life circumstances make it hard for them to attend a regular class. There are measures implemented or programs that ensure that these basic services will reach their beneficiaries. The Alternative Learning System (ALS), Instructional Management by Parents, Communities and Teachers (IMPACT), Modified In-School Off-School Approach (MISOSA), and the Open High School Program (OSHP) which allows the student to not physically report at school regularly. These programs allow the student to continue education via distance learning thru

module-based instruction. While these are implemented only for those learners having problems attending school regularly, the processes are still based on that of distance learning.

The implementation of distance learning via modular and online-based instruction supplemented by broadcast media can be delivered thru internet-based communication tools and telephone technology. Conducting online classes may be dependent on the speed and stability of internet connection for both learners and teachers. Module-based instruction may require higher learner independence on learning. Also, teacher factors such as the perception of distance learning, technology literacy, and their preparedness to implement distance learning will play a significant factor in its success. Distance learning can be facilitated via synchronous or asynchronous modes of instruction using the internet. The Philippines is known to have the worst and slowest Internet connection speed among Asia Pacific countries (The Manila Times, 2018). Poor internet connection is already a problem in the country ever since the pandemic began (Cuaton, 2020) as cited by (Moralista & Oducado, 2020) The use of video conferencing software like google meet, Microsoft teams, and zoom among all others requires teacher expertise in utilizing technology to implement distance learning. In the study of (Rehn et al., 2018) technology limitations, inadequate time, and money are among the barriers to successful teaching online. (Otiang'A et al., 2018) stated in their study that the level of ICT usage is attributed to the skills teacher have and that teachers should have the skills needed for them to integrate ICT in teaching and learning. Asynchronous mode facilitates learning whereby students can stop and start at different times and proceed at their own pace. These forms are self-paced and require higher learner independence. Teacher-to-student interaction may be limited to a phone call or an email when students have a problem

or question according to (Murphy et al., 2010). (Rasmitadila et al., 2020) stressed that technological readiness including technical capacity, whether online use (TV learning, radio, online applications) or offline (printed teaching materials, modules, textbooks) was necessary to support the success of online learning. These will impact instructions and delivery thus teachers' preparedness on the following aspects is important.

The study of (Martin et al., 2019) defined faculty readiness to teach online as a state of faculty preparedness for online teaching. In this study variables such as gender, years of teaching online, and delivery method for the perception of the importance of online teaching competencies. Likewise, the study showed a significant difference in the years in teaching online to the ability to teach online. While at the present context of the locality where this study will be implemented, teachers have very little to none in terms of experience in teaching online. Experience and education are two factors affecting knowledge and practice. Experience may help teachers to become knowledgeable and be able to put into practice new processes, techniques, strategies, and methods in the delivery of education or teaching thus this affects their capacity to implement distance learning.

Teacher perception could be a potential motivating factor towards the success of implementing distance learning. the teacher or instructor must be properly trained, prepared, and motivated to be effective and must have technological skills and confidence to use all of the various electronic devices to be effective in the remote classroom (Valentine, 2002). The study of (Moralista & Oducado, 2020) found a significant difference in teacher's perception in terms of age, educational attainment, years of teaching, and academic rank. The study states that faculty having higher education, more teaching experience, and higher academic rank tended to be more in favor of online education.

A similar study on teacher's readiness for online teaching was conducted by (Randy Joy M Ventayen, 2019) where the respondents are from the Department of Education who are taking up masters or doctorate degrees in the university where the study was conducted. While the study result states that the majority of the teachers are ready to implement open and distance learning the respondents may not be representative of the population given the fact that respondents are students of the graduate program. This study will use a different and broader set of questions and that respondent will cover all teachers in the district thus there will be variation in respondents' profile.

The correlation between teachers' demographic profile particularly length of teaching experience and specialization is correlated with teachers' readiness to distance learning education. Further, the teachers' gender, length of teaching experience, and geographic location have significant differences with their readiness to distance learning education according to the study of (Alea et al., 2020)

(Randy Joy Magno Ventayen et al., 2019) study on Senior High School teachers' readiness in blended and distance learning results showed that experience has a significant relationship with technical skills or technology literacy, attitudes, and time management in online and distance learning. Experience in distance learning is important to the teacher's preparedness, if they are doing it before as a means to deliver education it would be no different for them now, regardless of its magnitude since the same process will be used. Challenges like lack of preparation, lack of translation from experiences in teaching in the face-to-face classroom, and technology are among the issues in transitioning from face to face to online distance education according to (Lichoro, 2015).

In the research conducted by (Phan & Dang, 2017), teachers of online learning must have the technological skills and competencies of basic computer operation and technical issues relating to internet use to become a good facilitator of e-learning. It also stressed that many teachers who do not consider themselves to be well skilled in using ICT tools feel that technologies are not helpful in their teaching and personal work. Also, successful adoption of distance learning needs the teacher to possess not only basic technological skills (such as how to use the pc and connect to the internet) but also knowledge in the use of hardware such as recording devices and software as well as methods to deliver lessons without face to face interaction. These are skills needed when utilizing online learning platforms according to (Azzahra, 2020)

School and personal technology-related facilities will increase the tendency of teachers to put into practice what they know and what they can do with technology to improve their teaching. According to (M et al., 2017), institutions establishing distance learning programs should ensure that technology facilities are in place for effective implementation of the program. (König et al., 2020) analyzed potential factors such as school computer technology, teacher competence such as their technological pedagogical knowledge, and teacher education learning opportunities on digital teaching and learning to adapt online teaching. Findings from regression analyses show that information and communication technologies (ICT) tools, particularly digital teacher competence and teacher education opportunities to learn digital competence, are instrumental in adapting to online teaching during COVID-19 school closures. Implications are discussed for the field of teacher education and the adoption of ICT by teachers according to (König et al., 2020).

(UNESCO, 2020) stressed that one of the issues for distance learning effectiveness was conditioned by preparedness from various perspectives. One of

which is the pedagogical learning support readiness that includes preparedness of teachers to design and facilitate online learning, tv or radio-based distance learning, or print materials-based distance learning or commonly referred to as modular distance learning. Emphasis needs to be placed on identifying effective teacher competencies, along with the training needed to support faculty development. Identifying the amount and type of support or assistance teachers need, as well as resources required for various distance teaching approaches and course development, is important according to (Crumpacker, 2001).

Theoretical and Conceptual Framework

The Transactional Distance Theory (Moore, n.d.) states that distance education is not only the separation or the distance between the teacher and the learner geographically but as well as the time or space. In this theory distance is a pedagogical phenomenon rather than geographical. Transactional distance is a function of elements namely: (a) dialogue, (b) learner's autonomy, and (c) structure. Dialogue is the interaction between the teacher and the learner. Learner's autonomy is the capacity or the varying capacity of learners to learn. The structure is the course design and programs that can be delivered via various communication media.

In this study, dialogue represents the means that the teacher uses to deliver education. While teacher and learner dialogue can be facilitated using different communication media such as the internet that can be used to facilitate asynchronous and synchronous or real-time interaction between teacher and learner. The implementation of distance learning in this level, scale, and magnitude requires a combination or a selection thereof to cater to various learner's needs and capacities. While learner autonomy at the elementary level will most likely be insignificant,

teachers will be the ones who will provide direction to the learning process. While the structure of the program is standard, its delivery will vary from learner to learner depending on their capacity, resources, and other instructional provisions.

Transactional Distance theory briefly explains the relationships of the elements to successfully implement distance education. This study will look at factors affecting teacher preparation in the implementation of distance learning should be the main concern to be successful since it is never been done before on this scale.

The study determines factors that affect teacher preparedness on the implementation of blended distance learning. Factors such as age, gender, teaching experience, educational attainment, technology infrastructure, technology literacy, application of technology in teaching, and the perception of the teacher on blended distance learning were studied. The following factors are considered influential in the preparations and practices to be undertaken by teachers to prepare themselves in the implementation of distance learning. Socio-demographics of the respondents like age, years in teaching, the position can be attributed to new pre-service preparations like their course content is far different from older teachers who entered service a decade ago likewise teaching experience and educational attainment may show a significant difference to practices since both can improve competence and educate the teacher in the process. The demographics of teachers can determine the expertise and significant experiences, knowledge, and skills that could serve as pre-requisite in their expertise in using technology to help facilitate blended distance learning. Other factors like technology infrastructure and technology literacy compliments each other in the sense that the prior enable the teacher to become literate through practice and application to their work. While perception influences the teacher's desire to make distance learning an option in the implementation of distance learning thus it makes

the teacher prepare themselves for distance learning or to perform via traditional ways like face-to-face or the classroom set-up.

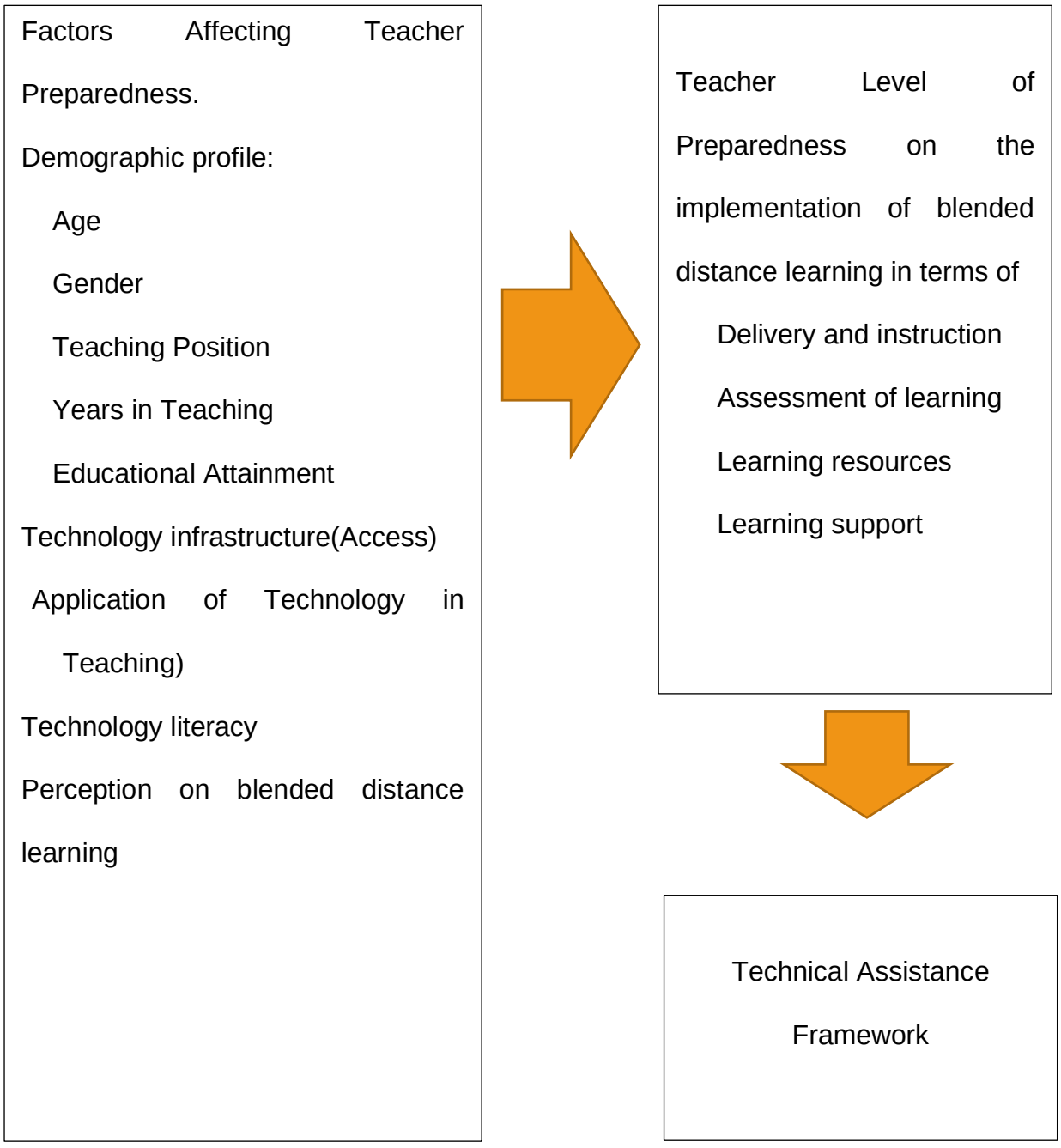

Figure 1 Research Paradigm

Research Questions

The study would like to find answers to the following questions that may have influenced teachers' level of preparedness to facilitate the implementation of remote learning

1. How may the teacher's respondents' profile be described in terms of their:
    a. Age
    b. Gender
    c. Teaching Position
    d. Years in Teaching
    e. Educational Attainment
2. How may the technology infrastructures of schools and teachers be described?
3. How may the application of technology in teaching of teachers be described?
4. How may the Technology literacy of teachers be described?
5. How may the level of preparedness of teachers in the implementation of blended distance learning be described in terms of:
    a. Delivery and Instruction
    b. Assessment of learning
    c. Learning Support
    d. Learning Resources
6. What are the factors that affect teacher preparedness in the implementation of blended distance learning?
7. What are the technical assistance needed by the teachers in the district of Sto. Domingo to successfully implement blended distance learning?

Hypothesis

The study tests the following null hypothesis:

1. There is no significant relationship between the level of preparedness of teachers in the District of Sto Domingo and their demographic profile in terms of age, gender, years in teaching, position, and educational attainment.

2. There is no significant relationship between the level of preparedness of teachers in the District of Sto Domingo and the technology infrastructure (access) of teachers.
3. There is no significant relationship between the level of preparedness of teachers in the District of Sto Domingo and the Application of Technology in Teaching of teachers.
4. There is no significant relationship between the level of preparedness of teachers in the District of Sto Domingo and the technology literacy of teachers.
5. There is no significant relationship between the level of preparedness of teachers in the District of Sto Domingo and their perception of blended distance learning.

Significance of the Study

The study will serve as a basis for developing a training matrix, design, and content for improving teachers' preparedness in the implementation of distance learning in the district of Sto. Domingo. The result may also serve as input to the development of a technical assistance program for teachers.

Distance or remote learning is not a new method or practice and it was already in place and being implemented to address learners having problems attending a regular class. Programs such as the Alternative Learning System (ALS) that primarily caters to out-of-school youth and children utilized various alternative delivery modes like modules and self-learning kits. Programs such as Instructional Management by Parents, Communities, and Teachers (IMPACT) and Modified in School Off School Approach(MISOSA) that utilizes community, parents, and other resources to cater to students facing problems of going or attending school on regular basis and as a

resolve to various problems like lack of classroom and materials in schools were in place.

Further, the study will provide information, data, and understanding to strengthen the foundation of distance learning in basic education. The following will benefit from the result of the study:

Parents

This study will help parents to understand their role in the process and guide them exactly where to intervene since their children are the main consumer of the services of the teachers. The result and the information will help them to decide to dedicate more time, money, and effort to the education of their child. This may suggest or help parents to increase their investment in resources related to technology such as the internet to help in the education of their child.

Teachers

Teacher preparation as stressed by (Rockwell et al., 2000) needs to be placed on identifying effective teacher competencies along with the training needed to support faculty development as well as resources required for various distance teaching approaches is important.

This study will help teachers succeed in implementing remote learning since this is the first time that public schools nationwide will implement distance learning in this magnitude. Preparation is the key element in the success of implementing distance learning, thus learning what matters and what will work takes time if taken to practice one at a time. This study will help teachers determine best practices and preparations made by others that work thereby eliminating trial and error in the implementation.

Identifying factors such as technology infrastructures at both personal and school levels will help teachers to decide where to invest to improve the quality of their work and output.

Administrators

The study will help school administrators to determine teacher preparedness in implementing remote learning and what possible interventions, training, and technical assistance are needed to successfully improve their practice. Administrators can have a picture of the factors that enable teachers to improve their practice in delivering remote learning thus strengthening its implementation. Common enablers such as school and personal technology infrastructure their frequency and purpose of use contribute to the skill and know-how of the teacher to utilize these in implementing distance learning. This will also identify relevant preparations such as training or courses undertaken by some teachers that can be replicated and adapted to others as an augmentation of what they have undertaken as preparations.

The study will test whether the level of preparedness of teachers has something to do with learners' achievement thus this will serve as the basis for upskilling of teachers in the implementation of distance learning. The study will provide details of teachers' preparedness on the areas or aspects of delivery and instruction, assessment, resources, and support. These core areas are essential in the teaching and learning process whether it is a normal classroom setting or distance or remote learning.

For the Department and Policy Makers

The study may serve as the basis for policymakers and other government officials on the aspects of:

Opportunity to improve access to education. Distance or remote learning does not require learners to attend physically to schools. Therefore, they can study at home or anywhere else on their own. Learners under difficult circumstances can study under remote and distance learning hence, reducing dropout and Out-of-School children and adolescents. Learners living in distant locations, remote islands, mountains were going to school is the problem, distance or remote learning is the solution. In the study published by UNESCO(*Education for All 2015 National ReviewReport: Philippines*, 2016) there are 424,228 children and 893,558 adolescents out-of-school. Also, according to (Patricia Anne San Buenaventura, 2019) there are 2.7% and 6.6% dropout rates in 2015 for the Primary and Secondary levels respectively. Reasons for this are lack of interest, high cost of education, illness or disability, lack of nearby school, employment, marriage or teenage pregnancy, and housekeeping (Albert & Raymundo, 2016).

Resolve the issue of lack of school buildings. One of the issues today is the lack of school buildings or the need for them. In the Education for All 2015(EFA 2015), one of the Ten-Point Agenda of the former President Benigno S. Aquino III, the administration is to build more schools in areas where there are no public and private schools. Successful implementation of distance learning will facilitate access to education even learners do not physically report to school thus reduce the problems in congestion in classrooms or the problem of not having a classroom especially in remote areas.

Improvement of Technology-related infrastructures in Schools. The result could serve as a basis for increasing investment in technology-related infrastructures of schools.

Scope and Limitations

The study was limited to determining the level of preparedness of teachers in implementing blended distance learning at the elementary level in the district of Sto. Domingo. Further, the study includes factors such as teacher's demographics, the technology infrastructure both personal and school level that helps facilitate blended distance learning, technology literacy, application of technology to facilitate or improve teaching and learning, and perception in implementing blended distance learning.

METHOD

Type of Research

The study uses a quantitative descriptive-correlational research design. Descriptive research was used to describe the level of preparedness of teachers, factors such as perception on blended distance learning, technology infrastructure, technology literacy, application of technology in teaching, and demographic data. The descriptive research design was most appropriate to explain the relationship of factors mentioned to the level of preparedness of the teachers in implementing blended distance learning.

Product Moment Correlation of Pearson r was used to test if there is any significant relationship between the above-mentioned factors and the teachers' level of preparedness in the implementation of blended distance learning. Regression analysis was conducted to further test the degree of relationship to which a factor affects the teacher's level of preparedness.

These data were the basis for formulating technical assistance programs to improve the preparations of the teacher in the implementation of blended distance learning.

Sampling Method

The study collects data from the 172 permanent teachers of Sto. Domingo across all grade levels. The distribution is shown in the table below.

Table 1 Respondents per School

SCHOOL		NUMBER OF TEACHERS
1.	Baloc Elementary School	30

SCHOOL		NUMBER OF TEACHERS
2.	Buasao Elementary School	8
3.	Burgos Elementary School	8
4.	Cabugao Elementary School	8
5.	Comitang Elementary School	8
6.	Concepcion Elementary School	7
7.	Dolores Elementary School	8
8.	Dona Milagros S. Chioco Elementary School	7
9.	Felix T. Pascual Elementary School	8
10.	Gen. Luna Elementary School	7
11.	Ilog Baliwag Elementary School	7
12.	Mabini Elementary School	8
13.	Malaya Elementary School	8
14.	Pelmoka Lina Elementary School	4
15.	Pulong Buli Elementary School	8
16.	Rogelio Valdezotto Elementary School	7
17	San Francisco Elementary School	8
18.	Sta. Rita Elementary School	7
19.	Sto. Domingo Central School	16
TOTAL		172

Sources of Data

The study used a survey instrument developed by the researcher to determine the preparedness of teachers in implementing blended distance learning in the district of Sto. Domingo. The research instrument was in a print version and is distributed to all the respondents.

The Research Instrument

The research instrument was developed to determine the preparedness of the teachers in the implementation of blended distance learning in the district of Sto. Domingo.

The research instrument is composed of six parts. The first part is the Demographic profile of the respondents, it contains basic information such as age, gender, educational attainment, teaching experience with other data such as grade level taught, contact number, school id, and school name are included for verification and clarification of data from the respondents.

The second part is the technology infrastructure(access), which gathers data on internet connectivity, gadgets, and hardware.

The third part is the Application of Technology in Teaching of the teacher. These have sets of questions that involve the use of technology in their daily teaching during the face-to-face setting.

The fourth part is the technology literacy of teachers it gathers data of their proficiency on productivity and creativity tools. Level of proficiency is classified as 1 - Fundamental Awareness (basic knowledge), 2 - Novice (limited experience), 3 - Intermediate (practical application), 4 - Advanced (applied theory), 5 - Expert (recognized authority).

The fifth part is the perception of teachers on distance learning. This data gathers the teacher's agreement or not on distance learning as an alternative to classroom or face-to-face instruction. This consists of a set of statements that is measured using a 5-point scale.

The sixth part is teacher preparedness and is divided into four sub-categories; delivery and instruction, assessment of learning, learning resources, and learning

support. These are measured using a 4-point Likert scale which the respondents' basis for assessing their level of preparedness based on statements and practices stated. The scale consists of “well-prepared”, “prepared”, “relatively prepared”, and “not prepared”. “Well-prepared means that the teacher respondent is certain and sure about the level of preparedness in his/her understanding and knowledge of the indicators as stated in the questionnaire. The next scale is “prepared”, which means that the teacher respondent has taken preparations relative to the circumstances at hand and undertaken preparatory activities to improve knowledge and practices. The next in the scale is “relatively prepared”, which means that the teacher respondent is uncertain of his her preparations if taken into action and that the knowledge gain is not sure of its applicability in the indicators as stated in this study and the last in the scale is the “not prepared” which means that no preparations were done at all.

Reliability and Validity Testing of the Instrument

The study used the Cronbach Alpha or Coefficient Alpha to test the reliability and validity of the instrument. The 15 respondents for the reliability and validity test are the teachers from Sta. Rita Elementary School and Felix T. Pascual Elementary School with 7 and 8 teachers respectively. The reliability score was 78.1% which is a good level of internal consistency. As a general rule .7 or 70% is an indication of an acceptable level of reliability in social science researches.

Data Collection Procedure

The research instrument was be administered to permanent teachers in the district from Kindergarten to Grade Six. Printed instruments were distributed by the school and the electronic version link was sent via messenger thru the school head of

each 19 schools in the district. Data collected was processed by the researcher for statistical treatment and analysis for the purpose only of this study. Secondary data were gathered using district statistics.

Ethical Considerations

Data gathered was used only for the conduct of the study and was never shared with other schools however its result was shared and discussed to serve as the basis for teacher training and technical assistance framework.

Data gathered and results will not be used to or will not inflict on the performance of the school head and teachers alike and will not be used as the basis of their rating.

Personal data were gathered thru the questionnaire to validate data when the need arises. Personal data was not included in any part of the result of the study.

Materials, instruments which are from an open-source which was used in the research are properly acknowledged and do not become the property of the researcher.

Hence, the study does not in any way contradicts existing programs or policies and shall only serve as a basis for providing technical assistance and training deemed responsive to the profiles and situation or circumstances of the respondents.

Informed consent will be sought thru a letter attached to the questionnaire explaining the use of data to be provided by the respondents.

Data Analysis

The study was analyzed using descriptive statistics. This was used to describe the demographics of the respondents, technology infrastructures(access) of the respondents, application of technology in teaching, technology literacy, perception of

blended distance learning, and the level of preparedness of teachers in the implementation of blended distance learning. Further, the study used the Pearson Product-Moment Correlation(Pearson r) to describe underlying factors that are correlated with teacher level of preparedness and regression analysis to determine the influence of such factors. This study used the Statistical Package for Social Science v.23(SPSS 23) for the statistical analysis of data.

RESULTS AND DISCUSSION

Respondents Profile

The respondents to the study were the 172 permanent teachers of Sto. Domingo Annex. These include teachers from Kindergarten to Grade 6 from 19 elementary schools in the district. The respondents' data in terms of age, gender, grade level taught, teaching position, years in teaching, and educational background is as follows:

Age

From the total of 163 teachers who indicated their age in the study, it was found that the youngest was 22 years old and the oldest was 61 years old with an average age of 40.04. The age of the population was relatively favorable, they can neither be old or young thus we can conclude that these ages were people who can easily adjust to the conditions of their work and can cope with changes brought by technology and the new system of education that we are experiencing to this day.

Gender

Based on the data gathered, Table 2 shows the frequency of respondents based on their gender. Of 172 respondents 157 or 91.3% of them were females and the remaining 15 or 8.7% were males. While results show that female is the dominant gender in the population it does not show significant difference with the male gender in terms of preparation in the implementation of blended distance learning.

Table 2 Gender Profile

Gender	Frequency	Valid Percent
Male	15	8.7
Female	157	91.3
Total	172	100.0

Teaching Position

The respondents Teaching position as shown in *Table 1*, provides a deeper understanding of the background of the teachers in the field of teaching. Teacher I is the entry-level position in teaching and is 34.7% of the population in this study. These are newly hired teachers ranging from 5 years and below in experience. Teacher II (8.1%) and Teacher III (50.9%) of the respondents are the next level position, these are teachers that were promoted either by natural vacancy by their merit and performance as a teacher that qualifies them for promotion or reclassification. Reclassification can be made to teachers who have acquired certain units or graduated their Masteral degree or have reached certain years in service. Master Teacher I and II which is 6.4% of the total population were a teacher that has shown distinctive achievement in the field of teaching since getting the position requires higher qualification standard based on merit and performance and is limited to 10% only of the teaching staff in the district. Based on statistical tests conducted in the study, teaching position was found to have no relationship, and that there was no significant difference between groups in terms of teacher preparedness in the implementation of blended distance learning.

Table 3 Teaching Position Frequency Distribution

Teaching Positions	Frequency	Valid Percent
Teacher I	59	34.7
Teacher II	14	8.1
Teacher III	88	50.9
Master Teacher I	9	5.2
Master Teacher II	2	1.2
Total	172	100.0

Years in Teaching

The respondents' years in teaching have a range of 35 years with 1 year being the lowest and 36 being the longest in the field. Years in teaching has an average of 11.39 years, below this, is 57% of the population. Years in teaching were found to correlate with Technology Literacy and preparedness of teachers on Delivery and Instructions in the implementation of blended distance learning. This could be attributed to their experience in teaching that enables them to become literate in technology integration in teaching and prepared in delivery and instruction under the blended distance learning environment.

Educational Attainment

Table 4 shows the distribution of respondents' educational attainment. Data shows that 82% of the teacher population have undergone graduate degree programs leading to masteral or doctoral degree. Educational attainment was found to have a relationship with a teaching position, technology literacy, and preparedness in learning support in the implementation of blended distance learning.

Table 4 Educational Attainment of respondents

Educational Attainment	Frequency	Valid Percent
Bachelor’s Degree	31	18.0
With Units in Masteral Degree Program	118	68.6
Master’s Degree	18	10.5
With Units in EdD or PhD Program	3	1.7
Doctoral Degree	2	1.2
Total	172	100.0

Technology Infrastructure(Access)

Internet Connection

One important factor in blended distance learning is the availability of internet connection since it facilitates most of the communication platforms today such as e-mail, instant messaging, or chat, and including file sharing and the likes. Internet as well facilitates access to online resources. Based on data gathered, as shown in Table 5, 42% of teachers have a postpaid internet connection or have subscribed to a postpaid account. This kind of connection is unlimited and is more stable than other modes of internet access. While 56.8% uses mobile data to connect to the internet, this adds up to a total of 98.8% of teachers that has access to an internet connection. The remaining 1.2% that relies on free data will be insignificant in number and is manageable at the school level if an internet connection is necessary.

Table 5 Internet Connection of Teachers

Mode of Internet Connection	Frequency	Valid Percent
Free Data	2	1.2
Mobile Data(Prepaid)	98	56.8
Postpaid(Ultera, Fber, Converge, etc)(fix connection)	72	42.0
Total	172	100.0

Table 6 shows data on teachers with provisions of internet connection in their school. The data shows that there are 50.6% of teachers without access to the internet in their respective schools thus rely on their means to connect to the internet when reporting to schools.

Table 6 Teacher with internet access from school

Teacher with Internet Access from School	Frequency	Valid Percent
With-out internet access	87	50.6
With Internet Access	85	49.4
Total	172	100.0

Table 7 shows the internet connection speed experienced by teachers, 61.8% have experienced an average speed and 8.10% have experienced fast and reliable connection. Slow internet connection experienced by 30.1% were relatively due to the location of teachers and schools because there are areas with poor network coverage within the locality.

Table 7 Internet Connection Speed as Experienced by Teachers

Internet Connection Speed as Experienced by Teachers	Frequency	Valid Percent
Poor(Slow)	52	30.1
Average(relatively slow/fast)	106	61.8
Good (fast and reliable)	14	8.1
Total	172	100.0

Available Devices for Use in Teaching in School and with the Teacher

Based on data, there are 160 teachers with a smartphone and 119 teachers with a laptop which they can use in teaching. Data have been examined and found out that all respondents have either a smartphone or laptop which they can utilize to use in teaching thus none of them lacks a device that they can utilize in teaching. Further 146 of the respondents claim that there is a laptop or desktop available in school for use in teaching.

Printing Devices

Results show that 172 respondents have access to a printer with 32 of them also have copiers available. Printing devices are important in the implementation of blended distance learning since printed materials are primarily the main component of delivery. This equipment facilitates the production of testing materials and learners' activities to improve and assess learning. The study finds that printing devices are not a problem for teachers in doing their tasks that requires them.

Application of Technology in Teaching

Based on the data gathered, the study provides a clearer understanding of the experiences of teachers in the use of technology in teaching that is useful in the delivery of blended distance learning. It was found out that the only teachers' practices that use technology are creating enrichment activities, assessment instruments, lesson planning, records keeping, accessing online resources, and use of online communication tools such as instant messaging and group chat. Teachers in this context rarely used technology in creating video lessons, presentations, facilitating asynchronous activities, online assessment, and conducting online classes. Taking into consideration the time of conduct of this research, a quarter of the school year has been spent under distance learning, and these practices haven't been utilized more often to deliver distance learning. These practices are necessary to deliver blended distance learning however may be challenged by the learners' circumstances which are not part of this study. Results however can suggest that practices falling under sometimes – rarely to never are not often utilized before the pandemic nor it was during this pandemic. Analysis of the mean score of the respondents determines that there are 24% that rarely apply these practices, 62% fall under sometimes, which indicates practices that are not regularly done, and 14% of the teachers apply these practices always or regularly. In general, the teachers in the district uses technology in teaching as "sometimes", which can be concluded that the application of such practices was not regularly. The level of teacher respondents in the application of technology in teaching represents the application of the teachers in actual teaching at the time of the conduct of this study and thus the result is an indication that the practices stated were not regularly applied or that as the situation demands the use of it. Result suggests a potential area for providing technical assistance to improve these

practices and help teachers in transitioning to or enhancing the delivery of blended distance learning and to explore other areas of concern not covered by this study that limits the teachers' application of technology in teaching.

Table 8 Application of technology in teaching

Application/Practices	Mean	Descriptive
1. Creating enrichment activities for self-learning modules	3.27	Always
2. Creating/developing Reading materials(more on texts)	3.24	Sometimes
3. Creating video lessons.	2.02	Rarely
4. Presentations(PowerPoint, prezi, etc)	2.43	Rarely
5. Lesson planning	3.90	Always
6. Assessment of learners(printed)	3.80	Always
7. Facilitating asynchronous activities such as video recordings or vlog for performance assessment	2.00	Rarely
8. Online assessment of learners	2.17	Rarely
9. Records keeping(spreadsheets)	3.63	Always
10. Creating google spreadsheets & forms or the likes to get students' responses or examinations.	1.91	Rarely
11. Utilizing instant messaging for setting up group chats and disseminating materials, announcements, or assignments.	3.62	Always
12. Conducting classes online	1.62	Never
13. Sharing resources via file-sharing platforms such as Google Drive, Onedrive, Dropbox, etc.	2.52	Sometimes
14. Accessing resources(downloading videos and other LMs)	3.46	Always
OVERALL	2.83	Sometimes

Technology Literacy

Technology plays an important role in facilitating blended distance learning because it connects people in different places and allows them to communicate instantaneously. In teaching, technology can easily facilitate a classroom-like setup for teachers and learners to interact and be able to teach and learn. In this study, technology literacy is considered irreplaceable with regards to delivering blended distance learning. Based on data analysis, it was found out that teachers in the district

were at the Intermediate level, which is defined in this study as at the practical application. Practical application means that teachers are technology literate on aspects that can be utilized in their field of work. Given the overall rating of "Intermediate level", means that teachers are practically applying these tools in their job. However practical applications suggest that they only use it when perceived benefits equate with that of using it, meaning when the particular technology is used it should produce the desired output or that it must simplify work or lessen the burden of teaching otherwise it will not be applied. The result suggests that teachers can benefit from further advanced training on technology and thus would benefit from further technical assistance when it comes to technology literacy.

Table 9 Technology Literacy of Teachers

Productivity Tools	Mean	Level
Google Search Engine or Equivalent	3.08	Intermediate
Email	3.31	Intermediate
Office: Word, Excel, Powerpoint	3.46	Advance
Cloud Storage: Google Drive, One Drive, DropBox, Box	2.64	Intermediate
Collab Tools: Google sheets, forms, Office 365, slides, etc.	2.54	Novice
Video Conferencing Tools: Hangouts Meet, Facetime, Zoom, Webex, Teams	2.80	Intermediate
Chat: Messenger, Viber, WhatsApp, Telegram, etc	3.52	Advance
Creativity Tools		
Digital Imaging(Adobe scan, Microsoft lens, etc)	2.09	Novice
Photo Editor (Photoshop, Corel Paintshop, etc	2.06	Novice
Video Editor(Adobe Premiere, Power Director, Corel Video Studio, Kinemaster, etc)	2.14	Novice
Audio Recorder	2.69	Intermediate
OVERALL	2.76	Intermediate

Perception of Teachers in the Implementation of Blended Distance Learning

Perception as defined was the way that someone thinks and feels about something. In this study perception of the teachers in the implementation of blended distance learning is their understanding of the system under which they will work on

the premise of the statements in Table 10. Perception affects motivation because it determines how we react to the situation is based on how we interpret it. In this study, perception is identified as a factor in the teachers' preparation in the implementation of blended distance learning. Results show that in the district of Sto. Domingo, based on the mean score of the respondents, teachers “agree” on Blended distance learning. Result states that respondents agree on almost all of the statements except for items “5. Can potentially reduce the work of teachers & 6. Will simplify the tasks of teachers”, which means that they consider it inversely thus implementing a blended distance learning can potentially increase and not simplify the tasks of teachers.

The respondents also agree negatively stated items 2 and 11, which means that this imposes a threat to the success of blended learning or will be given consideration considering the number of learners that will be affected.

The teachers in the district, however, “agree” blended distance learning believing that it would improve the quality of teaching and learning despite some negative effects such as additional cost, the possibility of increasing digital divide, and additional work for teachers.

Table 10 Perception of teachers on the implementation of blended distance learning

Statements	Mean	Description
BLENDED DISTANCE LEARNING…..		
1. Can happen or be performed anywhere and anytime.	2.89	Agree
2. Entails additional cost to teachers and parents.	3.08	Agree
3. Increases the level of learning(antas ng pagkatuto).	2.88	Agree
4. Will provided equal opportunity for learners to learn.	2.73	Agree
5. Can potentially reduce the work of teachers.	2.40	Disagree
6. Will simplify tasks of teachers.	2.47	Disagree
7. Has the potential to improve instructional support	2.69	Agree
8. Has the potential to promote the psychological well-being of learners.	2.76	Agree
9. Promote social interaction thru video conferencing like google meet and similar platforms.	2.87	Agree
10. Increase learner motivation in distance education.	2.71	Agree

Statements	Mean	Description
11. Increase digital divide among learners due to access and availability of technology and the internet.	2.73	Agree
12. Has the potential to improve learners' understanding of the topic presented in modules.	2.79	Agree
13. Has the potential to improve the learners' acquisition of knowledge and skills in the learning modules.	2.74	Agree
14. Has the potential to provide learners different avenues to exhibit their learning.	2.80	Agree
15. Has the potential to increase learner outcomes.	2.76	Agree
16. Can facilitate Assessment of learning in real-time.	2.75	Agree
17. I prefer blended distance learning if the school has a reliable internet connection that I can use other than telephone communication.	2.97	Agree
18. Overall, I prefer Blended Distance Learning	2.71	Agree

Preparedness of Teachers in the Implementation of Blended Distance Learning

Delivery and Instruction

Teacher preparedness on delivery and instruction in the blended distance learning environment is very important in the success of the teaching and learning process. Based on the mean score of the respondents, the teachers in the district are prepared for the implementation of distance learning which means that they have undertaken essential preparations as to how they understand the delivery of blended distance learning. However, items 1, 4, 5, 6, 8, and 14 falls under “relatively prepared” most of the items are rated “prepared”. In general, with respect to delivery and instruction teachers have an acceptable level of preparedness. Items, where they rated “relatively prepared”, are practices or activities that utilize technology or thus they have hesitation due to its applicability considering learners' capacity and available technology and devices which this study has not covered. While the result is consistent on teachers' “relatively prepared” level in utilizing technology preparing and developing learning materials in electronic format in a blended distance learning environment. While they are well prepared in using different communication technology or platforms.

Further improvements of teacher preparations on the delivery and instruction can be made as it happens or as they performed the tasks under this learning modality through training and provisions of technical assistance.

Table 11 Preparedness of Teachers on Delivery and Instruction

Statement	Mean	Description
1. Design online learning activities that provide opportunities to interact (discussion forum, wikis, chatroom, etc.)	2.27	Relatively Prepared
2. Use email, messenger, chat for announcements and reminders	3.28	Well Prepared
3. Provide instructional support any time during the day of learning activities via online or other remote means of communication.	2.66	Prepared
4. Use synchronous (google classroom, meet, Webex chat, etc) activities in facilitating class discussions.	2.08	Relatively Prepared
5. Use asynchronous activities(video recordings, forums, research work, term papers, etc) for performance tasks	2.16	Relatively Prepared
6. Provide at least 2 hours, 5 days a week in a virtual environment to conduct classes.	2.04	Relatively Prepared
7. Use of electronic or digital copy of learning materials that I can share with my learners.	2.64	Prepared
8. Support my lesson with presentations and videos.	2.42	Relatively Prepared
9. The Self Learning Modules were available, up-to-date, and appropriate in achieving the most essential learning competencies(MELC)	2.98	Prepared
10. Provide guidance on how to study their lessons in a distance or remote learning environment or setting.	2.97	Prepared
11. Provide instructional support alternatives to those learners with learning difficulties via online sessions or other means of communication.	2.72	Prepared
12. Provide feedback at the end of each learning week using e-mail or a similar communication platform.	2.73	Prepared
13. Create learning materials to address or compensate for learning difficulties.	2.76	Prepared
14. Utilized TV and Radio Based learning materials	2.37	Relatively Prepared
OVERALL	2.58	Prepared

Assessment of learning

Assessment of learning validates the teaching and learning taking place. It is essential in determining the achievement of learners. Distance learning place a

challenge for teachers in determining the actual learning of the learner considering that they study at home and thus the teacher cannot see the actual situation compared to face to face setting.

The study found that teachers in the district are “relatively prepared” in the assessment of learning under the Blended distance learning modality. Teachers are doubtful of their preparation, knowledge, and skills in assessing learning outcomes under the blended distance learning modality. The result highlighted the need to assist teachers in the development of synchronous and asynchronous assessment tools that could capture the learner's achievement on both electronic and written media. Since the teachers were relatively prepared on the assessment of learning, they would benefit from further technical assistance via INSET utilizing teachers who have the knowledge as skills in utilizing technology in assessing learners in a distance learning environment.

Table 12 Preparedness of Teachers on Assessment of Learning

Statement	Mean	Description
1. Create written and performance assessment tools using synchronous models such as online quizzes, video conferencing, reporting or presentations, or any other means that are real-time.	2.25	Relatively Prepared
2. Create written and performance assessment tools using asynchronous models such as written reports, research, term papers, book review, essays, examinations, audio or video recording, blog, vlog, wiki, or related activities that can be done anytime within schedule.	2.50	Relatively Prepared
3. Use online platforms to conduct questions and answer to validate learner's understanding of the lesson.	2.23	Relatively Prepared
4. Create group activities using synchronous and asynchronous models.	2.16	Relatively Prepared
5. Provide learners activity sheets to evaluate learning outcomes.	3.02	Prepared
OVERALL	2.43	Relatively Prepared

Learning Resources

Learning resources are supplemental materials that the teacher uses to improve learning however this will be different in many ways. In this study, learning resources are focused on providing support to a blended distance learning environment. The teacher in the district was “prepared” in providing resources appropriate for blended distance learning. The result showed that teachers are prepared in facilitating learning activities in a blended distance learning environment using current books as references, develop supplementary materials, and acquisition of digital learning materials via the LRMDS portal, DepEd Commons, and the internet. While teachers need further assistance on the utilization of electronic means to share resources with learners and in the preparation of supplementary materials in video and presentations.

Table 13 Preparedness of Teachers on Learning Resources

Statement	Mean	Description
1. Utilized books and other printed materials to support learners and facilitate learning.	3.38	Well Prepared
2. Create instructional videos to support teaching and learning.	2.23	Relatively Prepared
3. Prepare presentations for all my lessons.	2.48	Relatively Prepared
4. Create/develop synchronous and asynchronous learning materials for my learners	2.60	Prepared
5. Write supplementary learning materials to address learning difficulties.	2.80	Prepared
6. Download learning resources and materials for my learners on the LRMDS portal or DepEd Commons.	3.25	Prepared
7. Share learning materials to my learners via cloud storage or other file sharing platforms.	2.32	Relatively Prepared
8. Download or Record TV and Radio based learning materials and content.	2.48	Relatively Prepared
OVERALL	2.69	Prepared

Learning Support

Instructional support ensures that all learners can benefit from distance learning. Providing support requires the teacher's time, hardware, knowledge, and skill-set relative to the blended distance learning environment.

In this study, the teachers were “prepared” in providing support to their learners. The result showed teacher preparedness on the use of synchronous and asynchronous means of providing instructional support such as instant messaging or chat, creating a forum, vlog, blog, facilitating group discussions and activities. The respondents also are prepared to dedicate time for their learners and parents as instructional facilitators to support learning.

Table 14 Preparedness of Teachers on Learning Support

Statement	Mean	Description
1. Use of different tools like chat, forum, blog, wiki, email, etc. for interaction.	2.82	Prepared
2. Provide cooperative group activities to increase social learning and interaction in the distance learning platform.	2.53	Prepared
3. Offer different activities and opportunities to strengthen the interaction between learners.	2.71	Prepared
4. Develop a mechanism to help learners cope with learning difficulties.	2.94	Prepared
5. Dedicate time daily for guidance and counseling activities via online meet, chat, call or texts, and other means of communications.	3.05	Prepared
6. Dedicate time for learners and parents to address learning concerns via online meet, chat, call or texts, and other means of communications or Home visitation(if possible).	3.16	Prepared
OVERALL	2.87	Prepared

Factors Affecting Teacher Preparation in the Implementation of Blended Distance Learning

Analysis of the data gathered showed three factors correlated with the Preparedness of teachers in the implementation of blended distance learning. in Table

15, the result and strength of the relationship can be seen. As a general rule, the strength of the relationship of two variables is moderate when the r value is between .4 - .7. All other factors such as the demographics of the respondents and technology access have no relationship with the Preparedness of Teachers in the Implementation of Blended Distance Learning.

Table 15 Factors Correlated with Teacher Preparedness

Factors	Preparedness of Teachers in the Implementation of Blended Distance Learning (Pearson Correlation Coefficient)
Application of Technology in Teaching	r= .654
Technology Literacy	r= .434
Perception of Teachers on Blended Distance Learning	r= .633

Application of Technology in Teaching

Figure 2 illustrates the relationship between the Application of Technology in Teaching to Teacher Preparedness. In this scatter plot, the positive relationship between the two variables explains that teacher preparedness increases as their experience in using technology increases. The formula y=.089 + .063*x, will be the perceived value of teacher preparedness given the value of x which is the application of technology in teaching. For example, a teacher with a mean score of 4.0 in the application of technology in teaching using the formula will have a preparedness mean score of 3.41 which is “well prepared”. Hence the R^2 value of 0.428 explains that 42.8% of the change in teacher Preparedness can be attributed to their application of technology in teaching. Blended distance learning relies primarily on technology. Communication is the main link connecting the teacher and the learner thus the teacher must have a certain level of expertise and experience in the use of technology

in teaching to easily implement blended distance learning. Teachers already practically utilized technology in teaching during the face to face teaching and learning, but using it in distance learning requires more. Facilitating teaching and learning set up during this Covid-19 times is more challenging for teachers because if they decide to use technology, the learners must have also access to technology and cannot be done with the other party lacking on it. For instance, to conduct an online class the learners must have an internet connection to attend the class otherwise it will not be possible. Facilitating blended distance learning relies mainly on internet technology which is the most effective means for the teacher to deliver resources, materials, conduct assessments in real-time, and conduct classes. Likewise, asynchronous activities like a blog, vlog, chat, forum discussions, video, or audio recordings to facilitate learner's performances are as well best serve with the use of the internet. The study of (Sorbie, 2015), concluded that integrating technology into teaching allows flexibility for students and individualization in teaching and learning and that teaching with technology directly impacts student achievement, increased organization, usefulness, and provided real-world relevance.

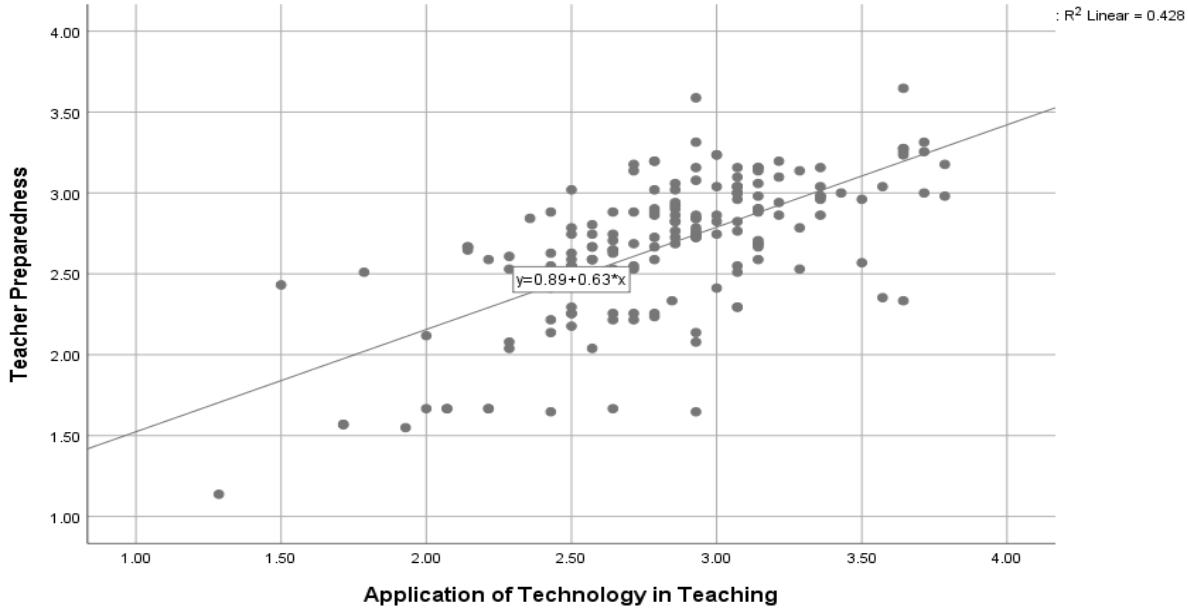

Figure 2 Application of Technology in Teaching vs Teacher Preparedness

Technology Literacy

In Figure 3, the scatter plot of technology literacy against teacher preparedness illustrates the relationship of the two variables. While there is s positive relationship, its strength is relatively weaker, meaning its effect on teacher preparedness is smaller. The formula y=2.07+0.22*x, if applied, a teacher having a mean score of 4.0 on technology literacy will have a preparedness mean score of only 2.95 which is under "prepared" and that R^2 value of 0.188 explains that only 18.8% of the change in Teacher Preparedness can be attributed to Technology Literacy.

(Nenko, 2020) states that it was necessary to find out how well the teachers use modern gadgets, electronic communications, to understand the level of their training in the field of information and communication technologies, the use of Internet resources, and the teachers' practical experience of distance learning. Technology literacy supports the teacher in utilizing technology in teaching, thus, a teacher who is more literate in technology tends to apply it often in teaching. While it is found in this study that the teachers in the district of Sto. Domingo is at an intermediate level which means they are using technology in practical application, therefore they apply technology in their work as they see it to be more practical or if it is yielding the result they wanted or if technology enables them to be more productive, saving time and effort, and simplifying their tasks In the blended distance learning environment. Technology enables teachers to develop and deliver supplementary materials and other learning resources without them having to move and make contact with their learners and it allows teachers to conduct classes in real-time. At the intermediate level, teachers must consider advancement to improve practice and efficiency in using technology in teaching. (Anoba & Cahapay, 2020) studied that technology literacy

varied among teachers, they stated that there is a need to promote digital literacy of the teachers to an advanced level for blended learning transition.

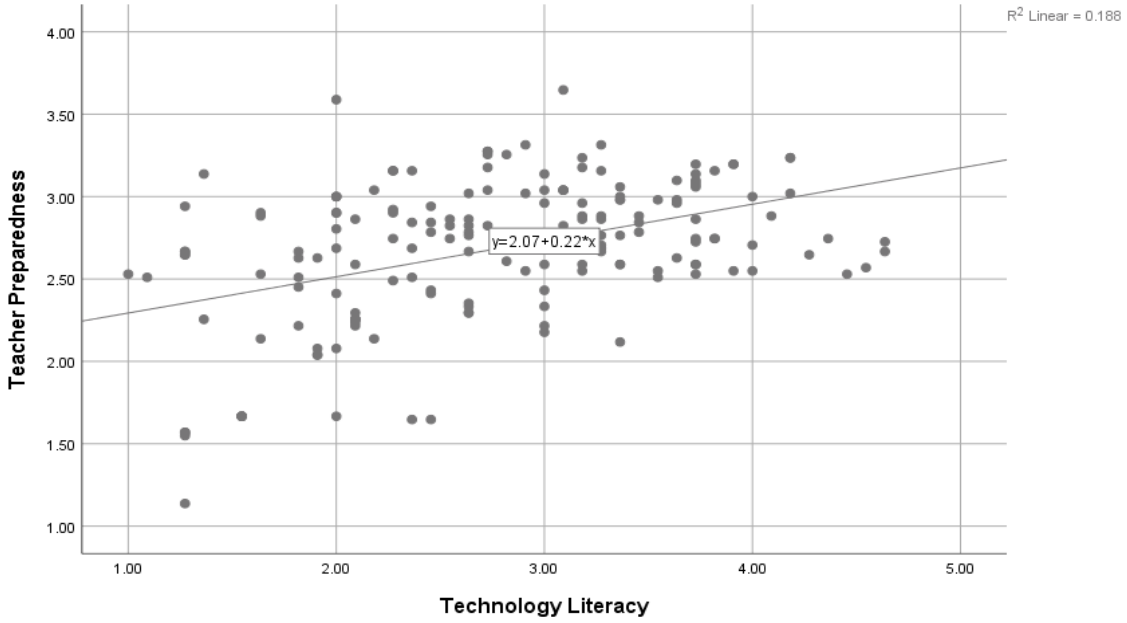

Figure 3 Technology Literacy vs Teacher Preparedness

Perception of Teachers on BDL

Figure 4 illustrates the linear relationship of teacher perception on BDL and their Preparedness on BDL. While a positive relationship between the two variables is clear the attribute of perception of teachers on BDL to their preparedness on implementing blended distance learning is only 40.1% as explained by the value of R^2 =0.401. The formula y=.097+.062*x predicts the teacher preparedness with a mean score of 4 on perception will have a mean score of 3.45 which is “well prepared”.

The perception of teachers on blended distance learning is an important factor for them in deciding to implement a blended learning approach or continue with the currently modular distance learning which is the current learning delivery modality in the district of Sto. Domingo. However, challenges are there such as the internet connectivity of learners, devices, economic, and other social factors that are inhibiting

the implementation of blended distance learning. The negative effect such as additional cost to teachers and parents is one of the common responses among respondents (refer to Table 10, item no. 3) that they have agreed. This coincided with the study of (Villa & Manalo, 2020) that under blended distance learning, the digital divide brought by financial constraint will hinder its implementation. On the positive side, (Hensley, 2020), teachers perceive that blended learning enabled them to have the time and opportunity to differentiate instruction while ensuring that all learners are actively involved in a quality learning experience and use a variety of digital resources to accommodate the diverse learning styles of all learners. Similarly, (Heng & Hang, 2017) found out that blended learning embraces learners' autonomy, allows more flexibility for self-study, and improves independent and self-regulated learning while also introduces learners to lifelong learning and activates students thinking skills The result of the study in the district of Sto. Domingo support blended distance learning because teachers find it to benefit the learners.

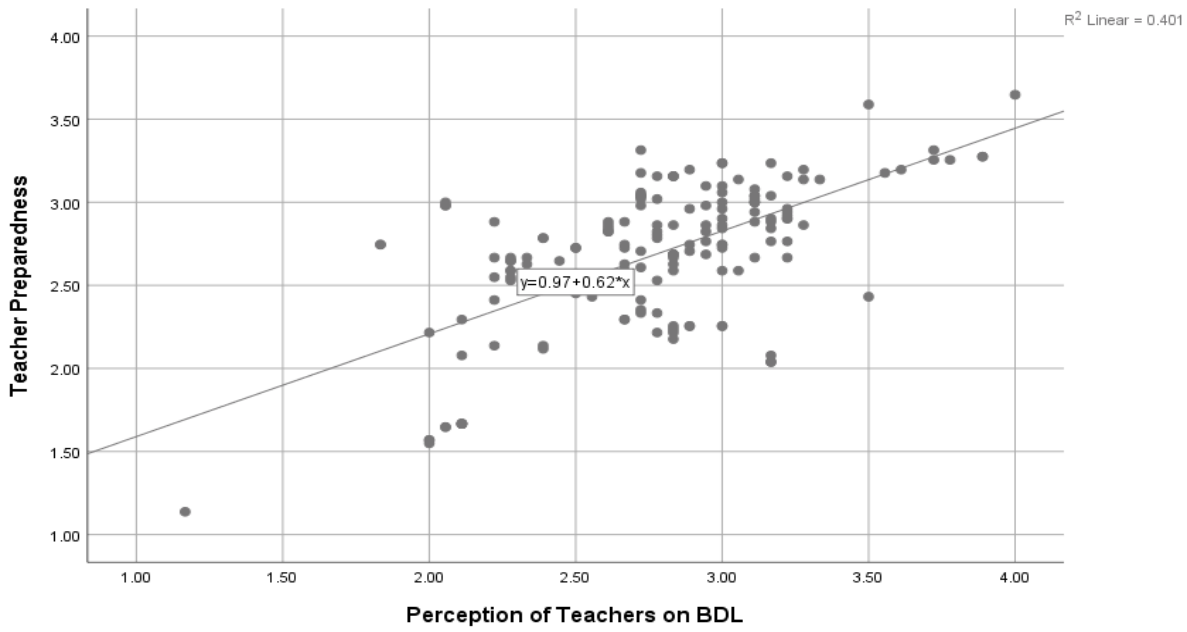

Figure 4 Perception of Teachers on BDl vs Teacher Preparedness

CONCLUSIONS

Based on the analysis of the data gathered. The following conclusions were drawn.

1. The Demographic Profile of the respondents has no relationship with their preparedness on the implementation of Blended distance learning. The study eliminates the differences of teachers in terms of their demographic profile with their preparation to implementing blended distance learning.
2. Access to technology is not a problem among teachers in the district of Sto. Domingo however this factor is not found to contribute nor cause the preparedness of teachers in implementing blended distance learning.
3. Application of Technology in Teaching, technology literacy and teacher's perception of blended distance learning are determinants of teacher preparedness in the implementation of blended distance learning. Technology literacy and experience are essential in preparing teachers for the implementation of blended distance learning because most practices and related activities that the teacher needs to do in a blended distance learning environment require the use of technology. Likewise, teacher perception on blended distance learning will serve as the motivating factor for the teacher on how they will behave and prepare themselves or choose to implement a blended distance learning.
4. Teachers in the district will benefit from training related to technology or ICT integration in teaching, the use of technology in distance learning, the virtual classroom environment, and improving learning outcomes through a blended learning approach.

RECOMMENDATIONS

From the result of the study, the following recommendations were drawn.

1. The teachers in the district of Sto. Domingo is capable of implementing a Blended Distance Learning modality.
2. The differences in the level of Application of Technology in Teaching and Technology Literacy among teachers can be resolved at the school level and can be improved through the INSET/LAC training.
3. A modeling approach through demonstration teaching can be used to help teachers with limited experience on the use of technology in teaching alongside technical assistance from colleagues and school administrators.
4. Other factors not identified in this study should be studied further to improve and successfully implement blended distance learning.
5. Refer to Error! Reference source not found. for recommended targets and objectives in providing technical assistance and conducting school-based LAC/INSET.

REFERENCES

Albert, J. R. G., & Raymundo, M. J. (2016). *Trends in Out of School Children and other Basic Education Statistics*. 21.

Alea, L. A., Fabrea, M. F., Roldan, R. D. A., & Farooqi, A. Z. (2020). *Teachers' Covid-19 Awareness, Distance Learning Education Experiences and Perceptions towards Institutional Readiness and Challenges*. 18.

Almario, A. R., & Austria, R. (2020). *Helping K - 12 Schools Transition to Post-COVID 19 Times*.

Anoba, J. L. D., & Cahapay, M. B. (2020). The Readiness of Teachers on Blended Learning Transition For Post-Covid-19 Period: An Assessment Using Parallel Mixed Method. *Pupil: International Journal of Teaching, Education and Learning*, *4*(2), 295–316. https://doi.org/10.20319/pijtel.2020.42.295316

Azzahra, N. F. (2020). *Addressing Distance Learning Barriers in Indonesia Amid the Covid-19 Pandemic*. 8.

Crumpacker, N. (2001). Faculty Pedagogical Approach, Skill, and Motivation in Today﷼s Distance Education Milieu. *Online Journal of Distance Learning Administration*, *4*(4). https://www.westga.edu/~distance/ojdla/winter44/crumpacker44.html

Education for All 2015 National ReviewReport: Philippines. (2016). UNESCO.

Heng, S., & Hang, S. (2017). *The Perception of Teachers in Using Blended Learning in Higher Education In Cambodia*. https://doi.org/10.13140/RG.2.2.18873.36965

Hensley, N. (2020). *Teacher Perceptions of Blended Learning to Support 21st Century Learners*. 178.

König, J., Jäger-Biela, D., & Glutsch, N. (2020). *Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence*. 16.

Lichoro, D. M. (2015). *Faculty preparedness for transition to teaching online courses in the Iowa Community College Online Consortium* (p. 7907255) [Doctor of Philosophy, Iowa State University, Digital Repository]. https://doi.org/10.31274/etd-180810-3928

M, S. T., S, M. J., & N, N. B. (2017). Analysis of Factors Affecting the Effectiveness of Distance Learning Mode in the Preparation of Teachers in Colleges of Education, Nigeria. *AU-EJournal of Interdisciplinary Research (ISSN: 2408-1906)*, *2*(1), Article 1. http://www.assumptionjournal.au.edu/index.php/eJIR/article/view/4213

Martin, F., Budhrani, K., & Wang, C. (2019). Examining Faculty Perception of Their Readiness to Teach Online. *Online Learning*, *23*(3). https://doi.org/10.24059/olj.v23i3.1555

Moore, M. G. (n.d.). *Theory of transactional distance*. 10.

Moralista, R. B., & Oducado, R. M. F. (2020). *Faculty Perception Toward Online Education in Higher Education During the Coronavirus Disease 19 (COVID-19) Pandemic* [Preprint]. Open Science Framework. https://doi.org/10.31219/osf.io/nhr7b

Murphy, E., Rodriguez Manzanares, M., & Barbour, M. (2010, July). *(1) (PDF) Asynchronous and synchronous online teaching: Perspectives of Canadian high school distance education teachers*. ResearchGate. https://www.researchgate.net/publication/229896185_Asynchronous_and_synchronous_online_teaching_Perspectives_of_Canadian_high_school_distance_education_teachers

Nenko, Y. (2020). Teachers' Readiness for Distance Education: From Theory to Practice. In L. Naumovska (Ed.), *The Impact Of COVID19 On The International Education System* (pp. 150–161). Proud Pen. https://doi.org/10.51432/978-1-8381524-0-6_11

Otiang'A, R. A., Ayere, D. M. A., & Rabari, D. J. A. (2018). *Teacher Preparedness in The Pedagogical Integration of Information Communication Technology (ICT) In Chemistry Among Public Secondary Schools in Kisumu County, Kenya*. *5*(10), 17.

Patricia Anne San Buenaventura. (2019). *Education Quality in the Philippines*. Philippine Statistics Authority. https://unstats.un.org/sdgs/files/meetings/sdg-inter-workshop-jan-2019/Session%2011.b.3_Philippines___Education%20Equality%20AssessmentFINAL4.pdf

Phan, T. T. N., & Dang, L. T. T. (2017). *Teacher Readiness for Online Teaching: A Critical Review*. *3*(1).

Rasmitadila, R., Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The Perceptions of Primary School Teachers of Online Learning during the COVID-19 Pandemic Period: A Case Study in Indonesia. *Journal of Ethnic and Cultural Studies*, *7*(2), 90. https://doi.org/10.29333/ejecs/388

Rehn, N., Maor, D., & McConney, A. (2018). The specific skills required of teachers who deliver K–12 distance education courses by synchronous videoconference: Implications for training and professional development. *Technology, Pedagogy, and Education*, *27*(4), 417–429. https://doi.org/10.1080/1475939X.2018.1483265

Rockwell, K., Furgason, J., & Marx, D. B. (2000). Research and Evaluation Needs for Distance Education: A Delphi Study. *Online Journal of Distance Learning Administration*, *3*(3). https://www.westga.edu/~distance/ojdla/fall33/rockwell33.html

Sorbie, J. I. (2015). *Exploring Teacher Perceptions of Blended Learning*. 252.

The Basic Education Learning Continuity Plan in the Time of COVID-19. (2020). Department of Education.

UNESCO. (2020). *Distance learning strategies in response to COVID-19 school closures—UNESCO Digital Library*. https://unesdoc.unesco.org/ark:/48223/pf0000373305?posInSet=2&queryId=07db85e8-c4cc-4f01-b7c2-50fd7ad72d4b

Valentine, D. (2002). Distance Learning: Promises, Problems, and Possibilities. *Online Journal of Distance Learning Administration*, *5*(3). https://www.westga.edu/~distance/ojdla/fall53/valentine53.html

Ventayen, Randy Joy M. (2019). Teachers' Readiness in Online Teaching Environment: A Case of Department of Education Teachers. *Journal of Education*, *2*(1), 13.

Ventayen, Randy Joy Magno, Salcedo, R., Orlanda-Ventayen, C. C., Ventayen, L. M., & Ventayen, T. J. M. (2019). Senior High School Teachers' Practices and Readiness in Blended Learning Environment: Basis for a Blended Learning Preparedness Framework. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3504189

Villa, J. A. D., & Manalo, F. K. B. (2020). *Secondary Teachers' Preparation, Challenges, and Coping Mechanism in The Pre-Implementation of Distance Learning In The New Normal*. *2*(3), 11.