



Republic of the Philippines
Department of Education
Region X
SCHOOLS DIVISION OF TANGUB CITY

North District B
Bongabong Elementary School
Bongabong, Tangub City

Title of Research: **SCHOOL ADMINISTRATORS' CHALLENGES AND TEACHERS' STRATEGIES AS CORRELATES IN THE IMPLEMENTATION OF TELEVISION- AND RADIO-BASED INSTRUCTION**

Name of Proponent: **Bernadith M. Lucesio**
T-III

**SCHOOL ADMINISTRATORS' CHALLENGES AND TEACHERS'
STRATEGIES AS CORRELATES IN THE IMPLEMENTATION
OF TELEVISION- AND RADIO-BASED INSTRUCTION**

ABSTRACT

The shift of modality from face-to-face instruction to a flexible learning approach has brought schools into challenging situations. This study determined the level of school administrators' challenges and the teachers' strategies used as correlates in the implementation of TVBI/RBI distance learning modality. This study used the descriptive-correlational design with 118 teachers chosen through stratified sampling and 35 school administrators chosen through purposive sampling. The questionnaires on Challenges, Strategies and Level of Implementation of TVBI/RBI Distance Learning Modality were the instruments used in gathering the data. *Frequency, Percentage, Mean, Standard Deviation, t-test and Pearson Product Moment correlation coefficient* were the statistical tools used in treating the numerical data. Moustakas' phenomenological reduction was utilized in analyzing the qualitative data. The quantitative study revealed that school administrators found the implementation of TVBI/RBI very challenging. The teachers highly implemented the strategies for TVBI/ RBI learning modality. The school administrators' challenges in terms of the development of a strategic plan highly correlated to content, while significantly related with assessment of learning in the implementation of the learning modality. The level of implementation of the TVBI/RBI learning modality highly influenced the strategies used by teachers.

Keywords: *challenges, flexible, implementation, modality, strategies*

TABLE OF CONTENTS

	Page
COVER PAGE.	i
ABSTRACT	ii
TABLE OF CONTENTS	iii
I. INTRODUCTION OF THE RESEARCH	1
II. LITERATURE REVIEW	2
III. RESEARCH QUESTION.	8
IV. SCOPE AND LIMITATION	9
V. RESEARCH METHODOLOGY	10
Research Design	10
Research Setting	10
Respondents of the Study	10
Research Instrument	11
Data Collection	13
Ethical Consideration	13
Data Analysis	14
VI. RESULTS AND DISCUSSION	15
Level of school Administrators’ Challenges in the Implementation Of TVBI/RBI Distance Learning Modality	15
Teacher’s Strategies Used in the Implementation of TVBI/RBI Distance Learning Modality	16
Level of Implementation of TVBI/RBI Distance Learning Modality	19
Difference Between the Perceptions of School Administrators and Teachers in the Implementation of TVBI/RBI Distance Learning Modality	21

Relationship Between School Administrators' Level of Challenges and the Level of Implementation of TVBI/RBI Distance Learning Modality	23
Relationship Between the Level of Implementation of Teacher's Strategies and the Level of Implementation of TVBI/RBI Distance Learning Modality	26
VII. CONCLUSION	29
VIII. RECOMMENEDATION	29
IX. REFERENCES	31
X. APPENDICES	37

I. Introduction of the Research

The saying 'necessity is the mother of invention,' stands true for the education sector in the Philippines today. As the pandemic has profoundly transformed the sector, which was earlier a little hesitant to adopt technology. The teaching learning process moved from the board and chalk model to tablet and virtual classrooms at a rather swift pace (Nair, 2020).

Policymakers, school administrators, instructors, students, and parents all confronted numerous obstacles. These obstacles hampered access to school and had a significant impact on educational quality (Moghli & Shuayb, 2020). Students are increasingly requesting more flexible learning that goes beyond the on-campus/online dichotomy due to the challenges of all-round development. The large number of school closures induced by COVID-19, on the other hand, has shown the uneven distribution of the equipment required for remote learning. It has also drawn attention to the lack of preparedness and resilience of systems designed to assist teachers, facilitators, and parents/caregivers in the successful and safe use of technology in the classroom (Dreesen, T., Akseer et al., 2020). Countries are facing several obstacles as a result of the pandemic, including countrywide healthcare emergencies and economic hardship, which has resulted in significant variety in educational solutions (Jordan & David et al., 2021). Teachers are in a difficult situation now that schools have resumed. One issue that has come up frequently is how to organize classes in the light of the "new normal" of education. Electricity and technology availability are two resources that are thought significant in evaluating education in the post-COVID-19 period. In isolated areas, these two resources are frequently difficult to come by (Cahapay, 2021).

According to research, students like flexible learning routes and prefer to choose the ones that best suit their needs. Despite variations in academic backgrounds, success rates for different learning pathways are adequate and similar, demonstrating that students are capable of overcoming gaps in their academic growth. The findings also demonstrated that concerns about the impact of certain learning pathways on students' academic integration are unjustified. Given the good outcomes, it is argued that flexible learning paths, in combination with flexible entrance requirements, increase equity and access for adult students (Duarte, Luisa, & Nobre, 2016).

As the division of Tangub City kicked-off the implementation of the chosen modality, the radio and television-based instruction, schools accepted it as a challenge. School administrators and teachers were able to adapt changes and adjustments were equally laid out. As the implementation of the chosen modality continued, challenges shadowed. However, this made the people involved became more aggressive to meet the demands and needs to sustain the learning continuity of the learners. As time passed and the implementation of the distance learning modality continued, there are various feedback from internal and external stakeholders which circulated doubts to some of how the implementation of Radio-Television-Based Instruction be said sustainable and reliable. Thus, the researcher determined to conduct the study.

II. Literature Review

Learning, in recent time, is being hampered by several challenges, ranging from pedagogy, availability of learning and teaching enhancing infrastructures as well as materials, policies of institutions, among others (Uleanya, Gamede & Mofoluwake, 2019).

Due to a time and space issue, students miss out on learning opportunities. Blended learning is an excellent technique to expand learning opportunities and enhance students' flexibility, although it is implemented differently in different situations (Li, Yang, Chu, Zainuddin & Zhang, 2020). Distance learning is frequently hailed as a paradigm-shifting method to education. The question of efficacy is one of the issues that internet suppliers face. The online education revolution turned out to be about access, not quality or outcomes, allowing millions more Americans to earn degrees on their own time (Thomson, 2018). Learners experienced loneliness due to minimal infrastructure development and poor cellphone networks. Demands of the program conflicted with social and family life and were compounded by uneven gender roles and family responsibilities. Work demands made it difficult to complete assignments. Feelings of isolation from teachers and classmates arose from distance and limited internet connectivity. The pressure of examinations was increased by inadequate learning materials. Common to all the challenges and emerging as the core category was the difficulty of time management (Kisseih, 2016). Another aspect affecting learning today is flexibility, which is built inside dedicated systems, allowing students to learn whether they are in a face-to-face or distant learning environment (Emerson, 2020).

Focusing on radio is particularly important because it is one of the longest-serving and most accessible types of educational technology (EdTech) and one that has had some effectiveness in education delivery in an LMIC context that has been affected by an epidemic (Damani & Mitchell, 2020). The Department of Education (DepEd) provided self-learning modules (SLMs) along with “alternative learning delivery modalities,” such as radio-based instruction (DepEd 2020). The most frequent modes

of learning are SLMs and radio-based education, which are the most accessible, especially to the country's underprivileged students (Imbong, 2021). Self-Learning Modules (SLMs) were created even before the COVID-19 epidemic in the Division of Sarangani, Region 12, due to the fact that schools in these areas are located in remote and far-flung locales where internet connectivity is extremely difficult (Bayod & Bayod, 2020). As a result, students at the school are increasingly confronted with a variety of obstacles, including personal, institutional, technical, and demographic challenges, which remains a major source of worry. As a result, it's vital that these issues are carefully addressed in order to keep EL alive at higher education institutions (Agbenyegah & Dlamini, 2019).

In order to stay competitive and innovative, educational institutions at all levels that have embraced blended and/or online learning must stay on the cutting edge of technology and educational innovations. Due to the funding limits that many organizations face, this work is frequently exceedingly tough. Keeping up with current technological advancements can provide not just financial problems, but also transitional challenges that can jeopardize learning quality, the institution's reputation, and learner performance. The features of the system, as well as the results and problems of migrating to an e-learning system that displays learning materials through a web browser, are described in this paper (Raspopovic, Cvetanovic, & Jankulovic, 2016).

Distance learning education has been viewed as a promising strategy for addressing not only the teacher shortage but also the high retention rates that are commonly connected with study leave. It was once assumed that distant education, like face-to-face education, could prepare certified teachers. However, there appear to be gaps between the goals of distance education and their implementation. Unqualified teachers who are unable to express themselves in the classroom are evident evidence of

this fact (Saba, Mamman, & Nwabufu, 2017). Adults' academic study time and space are often constrained due to full-time jobs, family obligations, and/or a hectic social life. In these cases, distance learning may be a good option because it allows people to study at home and fit it into their schedule. "Regular education on an institutional basis, [where] learning groups are separated and interactive telecommunication methods are used to connect lecturers, resources, and learners" is how distance education is defined (Zhou & Wang, 2019). Many students use their mobile devices to access the platform, demonstrating the continuous desire for flexible learning options. While the advantages of distance learning are clear, it is crucial to remember that there are still some courses that cannot be taught online (Pozdnyakova, Svetlana, Kirichenko & Savinova, 2020).

Flexible learning is an important technique for extending educational access. This is especially important given that global enrollments are predicted to treble by 2025. Flexible learning is a broad strategy that enables universities to be more responsive and relevant to a wide range of student populations (Maureen & Alden-Rivers, 2019). Furthermore, the physical separation between the teacher and students may result in 'transactional distance,' which refers to the psychological-communication space that exists between the instructor and students during a lesson and can lead to misunderstandings or misconceptions about themselves and the learning process. Such challenges, which are common in distance learning situations, necessitate the creation of methods (Zeichner & Zilka, 2016).

To lessen the impact, educational institutions have responded to the closure in various ways depending on the resources, both material and human, available to them. Students, teachers, managers, and parents have a variety of options depending on the resources, both material and human, available to them. In order to provide at least some form of educational continuity, most of the solutions must incorporate contemporary

technology (e.g., digital and mobile technologies paired with classic technologies such as radio and television) (Dawadi, Giri, & Simkhada, 2020). Plans and tactics for a swift reaction were established by education ministries. They adopted various techniques to ensure the continuance of education, such as using television, radio, and other paper-based solutions (Moghli, & Shuayb, 2020). Higher education institutions provide new chances to improve the quality of learning, teaching, research, innovation, and knowledge transfer. Many initiatives, both on and off campus, have been implemented (Morales & Contreras, 2021). The importance of implementing multi-pronged, sequential solutions to address COVID-19's educational impact is underlined. Wherever practical, these tactics should mirror current schooling. Even if you are convinced that internet usage is high in some places, you should consider integrating online learning with radio or television-based services to avoid increasing marginalization of individuals who cannot access the internet. Governments, in particular, can assist learning through other media channels by utilizing various modes of education delivery (Habler, B., 2020). Sierra Leone's government used radio and television to give teachings to the most vulnerable and disenfranchised students. Whatever technique the government implements, it must be cost-effective (at least within the family) and simple to use (children and their parents/guardians have some prior understanding of it or can readily learn how to use it) (Upoalkpajor & Upoalkpajor, 2020). The Australian education system responded to the COVID-19 pandemic, and one Australian institution launched a variety of innovations, including changing the manner of teaching and moving all first teacher education programs to a wholly online setting. The conversion of all face-to-face course work units into online units, including synchronous and asynchronous learning opportunities, was one of the novelties (Scull, Phillips, Sharma, & Garnier, 2020).

With the rapid transformation in the global education landscape brought on by the COVID-19 pandemic in 2020, the Department of Education (DepEd) strategized precise policy guidelines to ensure the continuity of teaching and learning at the primary level across the country. This was made possible by the release in May of this year of *The Basic Education Learning Continuity Plan in the Time of COVID-19* (Cabigaoa, 2021). Because remote learning is more flexible, learner-centered, and autonomous than face-to-face learning, it necessitates self-regulation and the use of self-regulated learning abilities on a more frequent basis (Kocdar, Karadeniz, Bozkurt, & Buyuk, 2018). Due to a lack of classroom space, the need to transition away from an oil-based economy, and the necessity to address both cultural and geographical constraints, such as providing an education to students in more rural locations, female students, and students unable to attend traditional classes due to the rapid growth of the student population, distance-learning programs in universities have become increasingly important in Saudi Arabia (Alzamanan, 2017).

Despite several objections, the Department of Education (DepEd) and the Commission on Higher Education (CHED) adopted and implemented the flexible model of blended learning, despite the risk of open courses due to the virus. The different learning modalities are the following: Modular (Printed), Modular (Digitized), Online, Educational TV, Radio-Based Instruction, Home Schooling and Blended Learning (Anzaldo, 2021). Governments and education partners have acted quickly to ensure that children continue to learn, utilizing a variety of delivery methods such as digital tools, TV/radio-based instruction, and take-home packages for parents or caregivers. -education that is guided (Dreesen et al., 2020). Educating our school children can be done in various ways. At this challenging time, teachers' organizational

commitment to perform better in the workplace will be put to the test as a driving factor in an effective teaching-learning environment.

School heads' competencies will likewise contribute to the improvement of teachers' performance (Cabigao, 2019); thus, the collaboration of school heads and teachers will give a driving force in ensuring the success of the school system (Cruz, 2021). SLMs converted to video lessons for TV-Based Instruction and SLMs converted to radio scripts for Radio-Based Instruction are used in TV/Radio-Based Instruction. Distance learning is best for self-directed learners who are supervised by their parents or guardians on a regular basis. Dealing with learners who are unable to learn independently will be a problem. This is being discussed further within DepEd as well as with partners and parents (Torres, 2021).

III. Research Questions

This study determined the school administrators' challenges, teachers' strategies and the level of implementation of television- and radio-based instruction in the Division of Tangub City, Misamis Occidental during the School Year 2021-2022. This sought to answer the following research questions:

1. What was the level of school administrators' challenges in the implementation of Television-Based Instruction (TVBI)/ Radio-Based Instruction (RBI) in terms of development of a strategic plan, implementation of TVBI/RBI, and evaluation on the implementation of TVBI/RBI as perceived by the school administrators themselves?

2. What was the level of implementation of teachers' strategies for TVBI/RBI in terms of attendance to orientation, participation in teacher training, development and

reproduction of learning materials, and distribution and retrieval of learning materials as perceived by the teachers themselves?

3. What was the level of implementation of TVBI/RBI modality of distance learning in terms of quality of TVBI/RBI learning resources, content, delivery, and assessment of learning as perceived by the school administrators and teachers;

4. Is there a significant difference in perceptions between the school administrators and teachers on the implementation of television or radio-based instruction;

5. Is there a significant relationship between the level of school administrators' challenges and the level of implementation of TVBI/RBI modality of distance learning;

6. Is there a significant relationship between the level of implementation of teachers' strategies and the level of implementation of TVBI/RBI modality of distance learning.

IV. Scope and Limitation

This study primarily focused on the school administrators' challenges, teachers' strategies and the level of implementation of television- and radio-based instruction in the Division of Tangub City, Misamis Occidental during the School Year 2021-2022. This study was conducted in the eight districts of the Division of Tangub City. The respondents of the study were the school administrators and elementary teachers. The respondents had given their full consent to participate in this study.

V. Research Methodology

Research Design

This study used the descriptive-correlational design. This design explained phenomena, attitudes, opinions, and behaviors or other defined variables through collecting numerical data which are analyzed using statistically-based methods (Kapici & Akçay, 2016). The descriptive-correlational design was appropriate for this study as it determined the level of school administrators' challenges, teachers' strategies and the level of implementation of TVBI/RBI distance learning modality.

Research Setting

This study was conducted in the Division of Tangub City. The division is composed of four (8) districts, namely: North District A and B, Central District A and B, South District A and B and Southwest District A and B. There are 65 schools comprising these districts, from elementary school (Kindergarten to Grade 6), Junior High School (Grade 7-10) to Senior High School (Grade 11-12). Out of the 65 schools in total, 55 were elementary schools in which 6 of these were converted to integrated schools. The elementary schools were situated in barangays to make access to learning easy for children living in both the urban and rural areas.

Respondents of the Study

The respondents of the study were 35 school administrators and 118 elementary teachers in the Division of Tangub City. The respondents were given their full consent to participate in this study. The school heads were chosen through purposive sampling while the elementary teachers were chosen through stratified sampling.

Research Instruments

The study utilized the following instruments:

A. Challenges in the Implementation of Television- or Radio- Based Instruction Modality of Distance Learning Questionnaire. This is a researcher-made questionnaire. It is a five-point likert scale determining the level of the challenges encountered by the school administrators in the implementation of the TVBI/RBI modality of distance learning. This was validated by experts and was pilot tested to the teachers who were excluded during the gathering of data from the actual respondents of this study. The instrument had 15 indicators with three constructs, namely: a) development of a strategic plan, implementation of TVBI/RBI, and evaluation on the implementation of RBI/TVBI.

In determining the level of challenges encountered by the school administrators in the implementation of TVBI/RBI, the following scale was used:

Responses	Continuum	Interpretation
5 – Strongly Agree (SA)	4.20-5.0	Very High (VH)
4 – Agree (A)	3.40-4.19	High (H)
3 – Somewhat Agree (SA)	2.60-3.39	Moderate (M)
2 – Disagree (D)	1.80-2.59	Low (L)
1 – Strongly Disagree (SD)	1.0-1.79	Very Low (VL)

A. Strategies Used in the Implementation of TVBI/RBI Distance Learning Modality Questionnaire (Appendix B). This is a researcher-made questionnaire. This

was validated by experts and was pilot tested to the teachers who were excluded in the actual study. It has 20 items with four constructs including, attendance to teacher training, development and reproduction of learning materials and distribution and retrieval of learning materials which were designed to measure the strategies used by teachers in the implementation of TVBI/RBI. Responses were solicited using five-point scale ranging from 5 (strongly agree) to 1 (strongly disagree).

To determine the level of implementation of the strategies used by teachers, the following continuum was used:

Responses	Continuum	Interpretation
5 – Strongly Agree (SA)	4.20-5.0	Highly Implemented (HI)
4 – Agree (A)	3.40-4.19	Implemented (I)
3 – Somewhat Agree (SA)	2.60-3.39	Average (A)
2 – Disagree (D)	1.80-2.59	Less Implemented (LI)
1 – Strongly Disagree (SD)	1.0-1.79	Least Implemented (LtI)

B. Level of Implementation of TVBI/RBI Modality of Distance Learning Questionnaire (Appendix C). This is a researcher-made questionnaire. It has a five point likert scale which was used to determine the level implementation of TVBI/RBI modality of distance learning. This was validated by experts and was pilot tested to the teachers who were excluded in the actual study. The instrument has 20 statements with four constructs, namely: quality of TVBI/RBI learning resources, content delivery and assessment of learning.

In determining the level of implementation of RBI/TVBI, the following scale was utilized:

Responses	Continuum	Interpretation
5 – Strongly Agree (SA)	4.20-5.0	Very High (VH)

4 – Agree (A)	3.40-4.19	High (H)
3 – Somewhat Agree (SA)	2.60-3.39	Average (H)
2 – Disagree (D)	1.80-2.59	Low (L)
1 – Strongly Disagree (SD)	1.0-1.79	Very Low VL)

Data Collection

Before the gathering of data, the researcher sought permission from the office of the Schools Division Superintendent for the conduct of the study. After the approval was obtained, the researcher prepared a consent letter for the respondents with whom the importance of the study was explained. The gathering of data was conducted online through the use of Google forms, in which the survey link of the online questionnaires was given to the respondents of the study. To ensure complete cooperation from the respondents, regular monitoring of online responses was done. The data gathered was tallied, analyzed, and interpreted.

Ethical Considerations

To uphold the ethical aspect of this study, the researcher solicited voluntary participation of the respondents. They were guaranteed that they will not be harmed in any manner. The responders' dignity was given first priority. The respondents' privacy was protected, as the confidentiality of the research data and the identities of those who took part in the study. Furthermore, deceit and exaggeration of the research's goals and objectives was avoided. Any and all affiliations, funding sources, and potential conflicts of interest were all stated. Finally, all research communications were conducted in an honest and transparent manner, with no misleading information or misinterpretations of main data findings. The researcher asked the respondents to sign the informed

consent as proof of their willingness to participate in the study by sending electronic signature.

Data Analysis

The study used the following tools in analyzing the data gathered with the use of Minitab Software:

Mean and Standard deviation. These was used in determining the challenges encountered by school administrators in the implementation of TVBI/RBI, the strategies used by teachers in the implementation of TVI/RBI, and the level of implementation of RBI/TVBI modality of distance learning.

T-test. This was used in exploring the difference between the perceptions of the school administrators and elementary teachers on the implementation of TVI/RBI in the Division of Tangub City.

Pearson Product Moment Correlation Coefficient. This was used in exploring the relationship between the challenges encountered by school administrators in the implementation of TVBI/RBI and strategies used in the implementation of TVI/RBI in relation to the level of implementation of TVBI/RBI modality of distance learning.

VI. Results and Discussion

Level of School Administrators' Challenges in the Implementation

Of TVBI/RBI Distance Learning Modality

The level of administrators' challenges in the implementation of RBI/TVBI distance learning modality is presented in Table 1. Generally, the school administrators found the implementation of TVBI/RBI in the Division of Tanguib City very challenging in the areas of development of a strategic plan ($M=4.8$; $SD=0.28$), implementation of TVBI/RBI ($M=4.48$; $SD=0.45$), and evaluation on the implementation of TVBI/RB ($M=4.61$; $SD=0.36$). The implementation of the new learning modality demanded a lot of new adjustments for the school administrators.

School administrators set another level of heights in their administration. Planning becomes intensive to target the desired goal. They set no boundaries in reaching out for help from stakeholders, parents and other groups to achieve the mission set by the Department of Education for the new normal education. The implementation of the new modality of learning creates a stir to school administrators as it demands huge adjustments especially to learners and parents. Allocated budget for learning materials and facilities becomes a challenge to the school administrators. Also teacher training is needed in the implementation of the new learning modality. The evaluation on the implementation thereby pave new standards which school administrators are not totally used to. As the new normal education sets its way, challenges becomes proportional to school administrators' responsibilities to provide learning continuity to every learner.

Learning has recently been hampered by a number of issues, including pedagogy, the availability of learning and teaching-enhancing infrastructures, as well as materials and institutional rules, among others (Uleanya et al, 2019). The school plays an important role in this journey because it is they who give training and workshops for instructors to provide them with the necessary skills and knowledge for distant learning education (Darling-Hammond et al., 2019).

Adopting a new modality for teaching and learning can always be challenging for the school administrators. Nevertheless, implementation of any change in instruction may lead to manageable shortcomings. It is then the task of every school administrator to focus and keep on track to address every challenge in the implementation of TVBI/RBI distance learning modality that this pandemic has brought so that the educational goals are attained.

Table 1

School Administrators' Challenges
(n=35)

Constructs	Mean	SD	Interpretation
Development of a Strategic Plan	4.83	0.28	Very High
Implementation of TVBI/ RBI	4.48	0.45	Very High
Evaluation on the Implementation of TVBI/ RBI	4.61	0.36	Very high
<i>Overall Mean</i>	<i>4.64</i>	<i>0.36</i>	<i>Very High</i>

Note. Challenges Scale: 4.20-5.00 (Very High); 3.40-4.19 (High); 2.60-3.39 (Moderate); 1.80-2.59 (Low) 1.00-1.79(Very Low)

Teachers' Strategies Used in the Implementation of TVBI/RBI Distance Learning Modality

Table 2 shows the level of implementation of teachers' strategies in the implementation of TVBI/RBI modality of distance learning. In general, the teachers' strategies were highly implemented. These strategies include attendance to orientation (M=4.71; SD=0.38), participation in teacher training (4.30; SD=0.74), development and reproduction of learning materials (M=4.45; SD=0.57) and distribution and retrieval of

learning materials ($M=4.51$; $SD=0.52$). This very high level of perception among teachers in Tangub City Division on their use of the strategies for the implementation of TVBI/RBI as a mode of instruction implies their proactive response to this new approach to teaching and learning.

The teachers conducted orientations to parents on the nature of the new normal education, including the latter's roles and responsibilities in assisting their children knowing that learning generally takes place at home. The teachers believed they have been provided the necessary trainings and support to equip them with the required knowledge and skills for the technology-based instruction through television and radio. The educators also consider viewed the development and reproduction of learning materials as tasks that they have given ample time to accomplish. The teachers recognize that their schools provide them with adequate resources for the learning materials. As to the distribution and retrieval of learning materials, the teachers have instituted a system procedure for parents and guardians to follow.

Teachers in the new normal education equipped themselves with technological competence, especially in the implementation of TVBI/RBI distance learning modality. Orientation of parents and stakeholders can be challenging if not properly planned and strategies are not carefully observed. Teachers need extensive training on the development and production of TV- and radio-based learning resources to ensure that the right knowledge and skills are developed, with the full support of the school administrators and the Schools Division Superintendent. Quality learning resources have to be shared with home learners.

It is very evident that COVID-19 crisis has greatly affected the delivery of education all worldwide. Teachers are called to design strategies and instruction in the context of the new normal education (Cahapay, 2021). The support extended by the

parents can also be a driving factor for children’s learning since the role of parents is very important to help monitor for their children doing all the learning activities prescribed through the modules at home (Churiyah, 2020).

A collective effort from all concerned individuals in providing quality education to the young learners at home is important. School administrators, teachers, parents and other stakeholders can work together so that the difficulties children experience are easily addressed. Proper orientation, teacher trainings, quality learning resources and strict health and safety protocols during distribution and retrieval of learning materials have to be carefully and intensively carried out.

Table 2

Implementation of Teachers’ Strategies Used in the Implementation of TVBI/ RBI Distance Learning Modality (n=83)

Constructs	Mean	SD	Remark
Attendance to Orientation	4.71	0.38	Highly Implemented
Participation in Teacher Training	4.30	0.74	Highly Implemented
Development and Reproduction of Learning Materials	4.45	0.57	Highly Implemented
Distribution and Retrieval of Learning Materials	4.51	0.52	Highly Implemented
Overall Mean	4.49	0.55	Highly Implemented

Note. Implementation Scale: 4.20-5.00 (Highly Implemented); 3.40-4.19 (Implemented); 2.60-3.39 (Average); 1.80-2.59 (Less Implemented); 1.00-1.79 (Least Implemented)

Level of Implementation of TVBI/ RBI Distance Learning Modality

The level of implementation of TVBI/RBI distance learning modality is presented in table 3. Both the administrators (M=4.61, SD=0.50) and teachers (M=4.48,

SD=0.60) perceived that the level of implementation of the TVBI/RBI distance learning modality in the Division of Tanguib City was very high. Specifically, the two groups of respondents strongly believed that the implementation in terms of the quality of learning materials, the learning content, its delivery including the assessment of learning of pupils was in place. This implies that the division has an effective system where teachers and parents fully understand the delivery of TVBI/RBI for their children's learning.

The teachers developed the learning resources which reflect the exact competencies to be developed based on the Curriculum Guide of the Department of Education. A coherent script that can easily be understood by the learners were carefully crafted to produce learning resources which are of good audio and video quality. The content is relevant to children's education which clearly reflects practical understanding of a concept to be learned and are directed towards the attainment of the learning competency. The time set for the TVBI/RBI program is sufficient. The language used by the TV/radio host is simple that can easily be understood by the learners. There are enough examples and/or illustrations given to understand better the concept being taught. The school has a clear procedure on how learners will be assessed in terms of what they learned through TVBI/RBI mode of delivery. Clear instructions are given to activities or tests that the learners will accomplish.

The level of implementation shows to what extent the achievement of specific goals have been determined. The program's attributes are significant in attaining set instructional goals, offering an appealing learning experience, involving students actively in the attainment of instructional goals, and having teaching and learning facilities (Nadeak, 2020). The use of radio-based instruction for learning is done in a structured and methodical manner. There is a break for students and educators to ask

questions and share their perspectives. The use of radio in education is a solution to the problem of insufficient teacher resources and low-quality teachers. As a result, it has the potential to improve learning quality, raise student test scores, and eventually lead rural kids to pursue higher education in urban regions (Ali et al., 2021).

The level of implementation of the TVBI/RBI learning modality lies in the hands of the primary individuals involved in the process. This includes the principals or school heads who guide, monitor, and ensure that all standard procedures are properly executed by their teachers on the field. Teachers, on the hand, take the risk of reaching out to parents and learners through all the learning resources made possible for learning at home. Parents and their children also take their share of the implementation by simply complying what has to be done. Table 3

Level of Implementation of TVBI/ RBI Distance Learning Modality (n=118)

Variables	Administrators (n=35)			Teachers (n=83)		
	Mean	SD	Remarks	Mean	SD	Remarks
Quality of TVBI/ RBI Learning Resources	4.62	0.44	Very High	4.49	0.61	Very High
Content	4.65	0.47	Very High	4.55	0.57	Very High
Delivery	4.60	0.60	Very High	4.44	0.61	Very High
Assessment of Learning	4.58	0.49	Very High	4.45	0.61	Very High
Overall	4.61	0.50	Very High	4.48	0.60	Very High

Note. Implementation Scale: 4.20-5.00 (Very High); 3.40-4.19 (High); 2.60-3.39 (Moderate); 1.80-2.59 (Low); 1.00-1.79 (Very Low)

Difference between the Perceptions of School Administrators and Teachers in the Implementation of TVBI/RBI Distance Learning Modality

Data in table 4 present the difference between the perceptions of school administrators and teachers on the level of implementation of TVBI/RBI learning modality in terms of quality of TVBI/RBI learning resources, content, delivery and assessment of learning. The *p*-values are greater than 0.05 level of significance, which implies that no statistical significant difference was established on the perceptions of the two groups of respondents. This indicates that generally, the school administrators and teachers have a similar level of understanding and assessment on the extent of TVBI/RBI implementation in Tangub City Division.

The administrators and teachers were able to perform their part in the implementation of the TVBI/RBI distance learning modality. Quality video and audio learning resources were produced by teachers and evaluated by school administrators which later on made its way to every learner through television and radio at home. The video and audio resources provide every learner the opportunity to continue learning despite the pandemic. The contents are well-introduced and reflect practical understanding of a concept to be learned. Delivery was clear, fun and interesting which makes every learner keep their attention. The assessment guidelines are realistic and fair for the learners through varied activities that learners will accomplish to test their understanding.

The managerial and leadership abilities of school heads are critical to the successful implementation of any program in schools (Aluko & Adan, 2015), especially in this time of pandemic. Furthermore, as administrators, they deal with day-to-day operational issues and alternate between leadership and management roles on a regular basis (Naidoo, 2019). Teachers can create opportunities for task involvement even when they are physically away from their students and colleagues by exploiting existing resources (Egbert, 2020).

Administrators and teachers nowadays play a vital role in making quality education for learners possible. They need to carry and help each other for the learning continuity of learners while remote from each other, making sure that quality of TVBI/RBI learning resources, content, delivery and assessment of learning contains the standard set by the Department of Education are secured. Despite the fact that there are potential challenges, implementing TVBI/RBI instruction can always be effective when the administrators and teachers are in the same view and attention towards its successful delivery.

Table 4

Difference between the Perceptions of School Administrators and Teachers on the level of Implementation of TVBI/ RBI Distance Learning Modality

Group	Mean	<i>SD</i>	t value	p value	Remark
Quality of TVBI/ RBI Learning Resources					
School Administrators	4.62	0.44	0.584	0.56	Not Significant
Teachers	4.49	0.61			
Content					
School Administrators	4.65	0.47	0.852	0.40	Not Significant
Teachers	4.55	0.57			
Delivery					
School Administrators	4.60	0.60	0.892	0.38	Not Significant
Teachers	4.44	0.61			
Assessment of Learning					

School Administrators	4.58	0.49	1.120	0.27	Not Significant
Teachers	4.45	0.61			

*Note: ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)*

Relationship between School Administrators' Level of Challenges and the Level of Implementation of TVBI/ RBI Distance Learning Modality

Table 5 shows the relationship between school administrators' level of challenges and the levels of implementation of TVBI/RBI distance learning modality. The data show that there is a significant relationship between the school administrators' challenges in the development of a strategic plan and content ($r=0.479$; $p=0.004$) and a significant relationship in the assessment of learning ($r=0.356$; $p=0.036$). No statistical significant relationships were found with other pairs of variables tested. In summary, content and assessment of learning have significant relate to the challenges faced by school administrators in the conceptualization and implementation of TVBI/RBI mode of distance learning in the Division of Tangub City.

School administrators found it challenging to select which learning contents and their underlying competencies from the DepEd Curriculum Guide would fit for the TVBI/RBI instruction. Despite that learning competencies are already outlined, these can be difficult to attain when using only the technology-driven mode of delivery. As such, the school administrators thought that selecting appropriate learning content is to them challenging. In addition, new mode of teaching delivery suggests new methods of assessing learning. For the school administrators, they may have been puzzled as to what appropriate assessment strategies would evaluate and support quality of distance learning through technology.

There is universal consensus in education that assessment is an essential component of any successful educational system or program. Educators, parents, elected officials, policymakers, businesses, and the general public all want to know if pupils are learning effectively and making academic progress (Magsombol, 2020). This strategy will have a negative impact on our instructors, who are already under pressure to conform to the new normal, secure and navigate technology resources, and write and deliver instructional materials on time. Some, however, have jumped rivers to distribute modules and risked their lives to ensure that no one is left behind, all in the sake of ensuring that no one is left behind. The learning environment, learning styles, faculty training, and proper instruments to employ are all issues that the government should examine (Navarosa & Fernando, 2020). The teacher is responsible for keeping track of the students' progress. They will make home visits if possible to check on each student's progress and performance (Malaya, 2020).

The success of an act is a product of a good plan. With the challenges in developing a strategic plan for implementing TVBI/RBI mode of distance learning, school administrators considered that the learning content and assessment are two important factors to consider. Using appropriate audio-visual learning devices for a topic is not an easy task for a teacher to do. There are complexities considering that there shall always be proper representation of concepts, from abstract to concrete. But when these things are properly addressed in planning, the implementation can be on its way to take positive outcome for learning.

Table 5

Relationship between School Administrators' Level of Challenges and the Level of Implementation of TVBI/ RBI Distance Learning Modality

Variables	<i>r</i> value	<i>p</i> value	Remarks
Development of a Strategic Plan and:			
Quality of TVBI/ RBI Learning Resources	0.329	0.054	Not Significant
Content	0.479	**0.004	Highly Significant
Delivery	0.279	0.105	Not Significant
Assessment of Learning	0.356	*0.036	Significant
Implementation of TVBI/ RBI and:			
Quality of TVBI/ RBI Learning Resources	0.018	0.917	Not Significant
Content	0.028	0.871	Not Significant
Delivery	0.043	0.806	Not Significant
Assessment of Learning	0.074	0.673	Not Significant
Evaluation on the Implementation of TVBI/ RBI and:			
Quality of TVBI/ RBI Learning Resources	0.058	0.742	Not Significant
Content	0.141	0.419	Not Significant
Delivery	0.026	0.883	Not Significant
Assessment of Learning	0.177	0.308	Not Significant

Note: ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)

Relationship between the Level of Implementation of Teachers' Strategies and the Level of Implementation of TVBI/ RBI Distance Learning Modality

Table 6 shows the relationship between the level of implementation of teachers' strategies and the level of implementation of TVBI/ RBI distance learning modality. All p-values are lesser than 0.01 level of significance, which suggests that there is a highly significant relationship between the teachers' strategies and the level of implementation of TVBI/RBI distance learning modality. The level of implementation of TVBI/RBI are attributed to the extent of using the strategies employed by the teachers for the distance learning modality. The overall finding implies that there is a high correlation between teachers' strategies and the level of implementation of TVBI/RBI.

The use of strategies such as orientation, teacher training, development and reproduction of learning materials, and distribution and retrieval of learning materials have significantly contributed to the quality of learning resources, content, delivery and assessment of learning for TVBI/RBI instruction. Hence, the strategies used by teachers can be viewed as effective for the distance mode of learning using TVBI/RBI. The implementation in general, is seen successful. The implementation of teachers' strategies is an indicator of the high implementation of TVBI/RBI distance learning modality.

The sufficient and effective orientation of parents and stakeholders made the implementation of the new distance learning modality a successful endeavor. Parents and stakeholders were well informed about their part which made them able to support the implementation. Teachers were participative to trainings and become well equipped with sufficient knowledge. Administrators and SDO provide support to teachers especially the budget allocation and providing equipment and facilities to produce quality TVBI/RBI learning resources.

The demand for new ways to deliver education is growing, which has resulted in changes in learning and teaching approaches (Sadeghi, 2019). These strategies helped a lot to succeed in the implementation of the new distance learning modality. Furthermore, these strategic objectives validate remote education planning and funding (Leontyeva, 2018). For online and distance learning to be successful, teachers need to be prepared and become competent decision makers in designing the use of technology in their classrooms (Hughes, Cheah, Shi, & Hsiao, 2020). Teachers need to how to communicate digitally, integrate technology tools, design online instruction, assess students' understanding, and support student learning in an online environment (Williams, Schroer, Gull, Miller & Axelson, 2020).

To cope with the new demands and needs of the new normal education, teachers acquaint themselves to be constantly up-skilled as the main actors to deliver quality education. By implementing strategies perpendicular to the demands of the new normal set-up of education, the implementation of the TVBI/RBI distance learning modality became a success. It implied that teachers' strategies is an indicator to the very high implementation of TVBI/RBI distance learning modality.

Table 6

Relationship between the Level of Implementation of Teachers' Strategies and the Level of Implementation of TVBI/ RBI Distance Learning Modality

Variables	<i>r</i> value	<i>p</i> value	Remarks
Orientation and:			
Quality of TVBI/ RBI Learning Resources	0.668	**<0.01	Highly Significant
Content	0.753	**<0.01	Highly Significant
Delivery	0.604	**<0.01	Highly Significant

Assessment of Learning	0.717	**<0.01	
Teacher Training and:			Highly Significant
Quality of TVBI/ RBI Learning Resources	0.623	**<0.01	Highly Significant
Content	0.652	**<0.01	Highly Significant
Delivery	0.600	**<0.01	Highly Significant
Assessment of Learning	0.693	**<0.01	
Development and Reproduction of Learning Materials and:			Highly Significant
Quality of TVBI/ RBI Learning Resources	0.791	**<0.01	Highly Significant
Content	0.801	**<0.01	Highly Significant
Delivery	0.741	**<0.01	Highly Significant
Assessment of Learning	0.792	**<0.01	
Distribution and Retrieval of Learning Materials and:			Highly Significant
Quality of TVBI/ RBI Learning Resources			Highly Significant
Content	0.709	**<0.01	Highly Significant
Delivery	0.738	**<0.01	Highly Significant
Assessment of Learning	0.675	**<0.01	Highly Significant
	0.770	**<0.01	

Note: ** $p < 0.01$ (Highly Significant); * $p < 0.05$ (Significant); $p > 0.05$ (Not significant)

VII. Conclusion

Despite the challenges in the planning and conceptualization of strategies prior to the implementation of the TVBI/RBI in the Division of Tangub City, both the school

administrators and teachers strongly believed that their effort and time were not wasted in helping the division successfully implement the adoption of technology-based learning modality. Administrators and teachers were able to develop a strategic plan and effective strategies so that the desired goal to bring quality education in the convenience of home learning is still made possible. Teachers were actively engaged in the process, from developing the instructional materials, distributing these to the learners across long distances from both urban and rural households, to retrieving the learning materials for assessment purposes. Technology has in a way not a serious problem for teachers to develop good video and audio outputs that supplement teaching and support learning. The effectiveness of the delivery of TVBI/RBI constitute to the quality of learning resources, content, delivery and assessment of learning. This goes to show that school administrators and teachers became the integral backbone in the implementation of this technology-driven distance learning modality. It is a successful breakthrough being a product of the collective efforts of the school administrators and teachers passing through the parameters of the external and internal stakeholders.

VIII. Recommendation

Based from the findings and conclusions, school administrators and teachers may maintain their commitment and passion to their profession being in this time of the pandemic. A constant assessment on the progress and development of the implementation is important for the school to consider to address specific needs, be it small or big. Teachers may continue to develop quality audio-visual learning materials as mechanisms to capture learners' interest for learning at the convenience of their own homes. Teachers also deepen their collaboration with parents in order to collaborate on

monitoring their students' learning development. The local government may also provide assistance, financially or in kind to help sustain the needs for materials development and reproduction as it is one of the costly requirement to effect TVBI/RBI distance learning modality. Future researchers may utilize the output of this study to strengthen the assessment of TVBI/RBI in other aspects not included in this study.

IX. References

- Agbenyegah, A. T., & Dlamini, B. I. (2019). Investigating the challenges of E-learning in A developing institution of higher learning: A hypothetical approach. *Journal of Applied Business Research*, 35(3), 83-96. Retrieved from doi:http://dx.doi.org/10.19030/jabr.v35i3.10303
- Alzamanan, M. M. S. A. (2017). *Case study of distance learning at university of najran* (Order No. 10618026). Available from ProQuest Central. (1970074926). Retrieved from <https://search.proquest.com/docview/1970074926?accountid=149218>
- Arcueno, G., Arga, H., Manalili, T. A., & Garcia, J. A. (2021). TPACK and ERT: Understanding teacher decisions and challenges with integrating technology in planning lessons and instructions. *EasyChair Prepr*, 5163, 1-7. Retrieved from <https://tinyurl.com/3c2jtsfp>
- Bayod, R., & Bayod, C. (2020). Laying the groundworks for education of children in the new normal: The case of DepEd Southern Mindanao. *Eubios Journal of Asian and International Bioethics*, 30(8), 443-449. <https://tinyurl.com/yunj5eu>
- Burrola, A. (2020, Apr 22). National charter networks are leading distance learning strategies. *CE Think Tank Newswire* Retrieved from <https://search.proquest.com/docview/2393994671?accountid=149218>
- Cahapay, M. B. (2021). How to Plan Lessons in the New Normal Education: A Reintroduction to Selected Instructional Design Processes. *Aquademia*, 5(1), ep21006. Retrieved from <https://tinyurl.com/5373xvzv>
- Cahapay, M. B. (2021). Philippine Basic Education Learning Continuity Plan: Creating Space for Indigenous Peoples toward Inclusive post-COVID-19 Education. *International Journal of Pedagogical Development and Lifelong Learning*, 2(1). Retrieved from <https://tinyurl.com/3pfudrm4>
- Cahapay, M. B. (2021). Philippine Basic Education Learning Continuity Plan: Creating Space for Indigenous Peoples toward Inclusive post-COVID-19 Education. *International Journal of Pedagogical Development and Lifelong Learning*, 2(1). Retrieved from <https://tinyurl.com/3pfudrm4>
- Comparison of the effectiveness of teaching strategies for a pediatric pain management program for undergraduate nursing students: A quantitative evaluation using an objective structured clinical examination. (2020). *Nurse Education in Practice*, 43 Retrieved from doi:http://dx.doi.org/10.1016/j.nepr.2020.102707

- Cruse, E. (2006). Using educational video in the classroom: Theory, research and practice. *Library Video Company*, 12(4), 56-80.
- Cruz, J. P. More Ways Than One. Retrieved from <https://tinyurl.com/565h2t6j>
- Damani, K., & Mitchell, J. (2020). Radio: Rapid evidence review. *The EdTech Hub*. doi, 10. Retrieved from <https://tinyurl.com/4uup2uv4>
- Dawadi, S., Giri, R. A., & Simkhada, P. (2020). Impact of COVID-19 on the Education Sector in Nepal: Challenges and Coping Strategies. *Online Submission*. Retrieved from <https://tinyurl.com/utvcwh2z>
- Dreesen, T., Akseer, S., Brossard, M., Dewan, P., Giraldo, J. P., Kamei, A., ... & Ortiz, J. S. (2020). Promising practices for equitable remote learning: Emerging lessons from COVID-19 education responses in 127 countries. Retrieved from <https://tinyurl.com/9cwnbkpw>
- Duarte, R., de Oliveira Pires, Ana Luisa, & Nobre, A. L. (2016). *Increasing adult students' learning opportunities with flexible learning pathways: Evidence from a technology and industrial management graduate course*. Piscataway: The Institute of Electrical and Electronics Engineers, Inc. (IEEE). Retrieved from <https://search.proquest.com/docview/1848292995?accountid=149218>
- Eder, R. (2020). The remoteness of remote learning: A policy lesson from COVID19. *Journal of Interdisciplinary Studies in Education*, 9(1), 168-171. Retrieved from <https://tinyurl.com/4ne8zhp3>
- Emerson, A. J. (2020). The use of WhatsApp for flexible learning: Its effectiveness in supporting teaching and learning in sierra leone's higher education institutions. *International Journal of Advanced Corporate Learning*, 13(1), 35-47. Retrieved from <https://search.proquest.com/docview/2385992118?accountid=149218>
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(86), 1-18.
- Gachago, D., Jones, B., & Edwards, S. (2018). *Towards flexible learning through distance learning: ND real estate learners' experiences*. Kidmore End: Academic Conferences International Limited. Retrieved from <https://search.proquest.com/docview/2081755536?accountid=149218>
- Haßler, B., Khalayleh, A., McBurnie, C., & No, H. R. (2020). A five-part education response to the COVID-19 pandemic. *EdTech Hub Helpdesk Response*. Retrieved from <https://tinyurl.com/4j2mass>
- Hatun Ataş, A., & Delialioğlu, Ö. (2018). A question–answer system for mobile devices in lecture-based instruction: a qualitative analysis of student engagement and learning. *Interactive Learning Environments*, 26(1), 75-90.

- Imbong, R. A. D. (2021). On Transistor Radios and Authoritarianism: The Politics of Radio-Broadcasted Distance Learning. *Techné: Research in Philosophy and Technology*. Retrieved from <https://tinyurl.com/yhpnr3wh>
- Jordan, K., David, R., Phillips, T., & Pellini, A. (2021). Education during the COVID-19 crisis Opportunities and constraints of using EdTech in low-income countries. *Revista de Educación a Distancia (RED)*, 21(65). Retrieved from <https://tinyurl.com/2t237wtx>
- Kisseih, G. A. (2016). *Distance teacher education in ghana: The learner's experience* (Order No. 10583869). Available from ProQuest Central. (1879714071). Retrieved from <https://search.proquest.com/docview/1879714071?accountid=149218>
- Kocdar, S., Karadeniz, A., Bozkurt, A., & Buyuk, K. (2018). Measuring self-regulation in self-paced open and distance learning environments. *International Review of Research in Open and Distributed Learning*, 19(1) Retrieved from <https://search.proquest.com/docview/2047938445?accountid=149218>
- Li, X., Yang, Y., Chu, S. K. W., Zainuddin, Z., & Zhang, Y. (2020). Applying blended synchronous teaching and learning for flexible learning in higher education: An action research study at a university in hong kong. *Asia Pacific Journal of Education*, Retrieved from <https://search.proquest.com/docview/2408286490?accountid=149218>
- Luz, J.M. (2020). 3 case studies: How ready are Philippine schools for distance learning? Retrieved from <https://www.rappler.com/nation/ase-studies-howready-are-philippine-schools-for-distancelearning>
- Manurung, G. N., Manurung, K., Mertosono, S. R., & Kamaruddin, A. (2020). Perceptions of EFL learners in the implementation of blended learning post-natural disaster at a university in indonesia. *Theory and Practice in Language Studies*, 10(8), 959-968. Retrieved from doi:<http://dx.doi.org/10.17507/tpls.1008.15>
- Maureen, S. A., & Alden-Rivers, B. (2019). Developing a framework for sustainable growth of flexible learning opportunities. *Higher Education Pedagogies*, 4(1) Retrieved from doi: <http://dx.doi.org/10.1080/23752696.2018.156487>
- Maureen, S. A., & Alden-Rivers, B. (2019). Developing a framework for sustainable growth of flexible learning opportunities. *Higher Education Pedagogies*, 4(1) Retrieved from doi:<http://dx.doi.org/10.1080/23752696.2018.1564879>
- Moghli, M. A., & Shuayb, M. (2020). Education under COVID-19 lockdown: Reflections for teachers, students and parents. *Center for Lebanese Studies, Lebanese American University: Beirut, Lebanon*. Retrieved from <https://tinyurl.com/d2n47v9d>
- Moghli, M. A., & Shuayb, M. (2020). Education under COVID-19 lockdown: Reflections for teachers, students and parents. *Center for Lebanese Studies, Lebanese American University: Beirut, Lebanon*. Retrieved from <https://tinyurl.com/d2n47v9d>

- Morales Contreras, M. F., Guanqi, Z., Iskandard, D. A., Mohr, A. T., & Fernández Méndez, L. (2021). Covid19 as a trigger for new ways of internationalizing of Higher Education. Retrieved from <https://tinyurl.com/2dvkr7hd>
- Mustafa, Z. (2012). Teachers' encountered challenges in the adoption of task-based language teaching in malaysian classrooms. *International Journal of Arts & Sciences*, 5(3), 269-279. Retrieved from <https://search.proquest.com/docview/1284080673?accountid=149218>
- Nair, I. P. (2020, Jul 08). Unlocking opportunities [times region]: as technology-enabled education gains ground and blended learning becomes the new normal, the education sector in the country is on a paradigm shift, redefining the role of educators and opening up new career opportunities. *The Times of India (Online)* Retrieved from <https://search.proquest.com/docview/2420905741?accountid=149218>
- Nsengimana, T., Bazimaziki, G., Nyirahabimana, A., Mushimiyimana, J. B., Mutarutinya, V., Mugabo, L. R., & Nsengimana, V. (2021). Online Learning during COVID-19 pandemic in Rwanda: Experience of postgraduate students on language of instruction, mathematics and science education. *Contemporary Mathematics and Science Education*, 2(1), ep21009. Retrieved from <https://tinyurl.com/pntcj2my>
- Ouyang, J. R., & Stanley, N. (2014). Theories and research in educational technology and distance learning instruction through Blackboard. *Universal Journal of Educational Research*, 2(2), 161-172. Retrieved from <https://eric.ed.gov/?id=EJ1053980>
- Patil, D., & Naqvi, W. M. (2020). COVID-19 and education system: Impact of current pandemic on adaptive learning strategies in medical education system. *International Journal of Research in Pharmaceutical Sciences*, 11(Special Issue 1). Retrieved from <https://tinyurl.com/62br36k4>
- Pirsl, D., Stojkovic, N., & Pirsl, T. (2017). *Sports Science Quality Frameworks In Blended Learning In Serbia*. Bucharest: "Carol I" National Defence University. Retrieved from doi:<http://dx.doi.org/10.12753/2066-026X-17-201>
- Pozdnyakova, Svetlana Yu, PhD, Assoc Prof, Kirichenko, N. R., Assoc Prof, & Savinova, Y. A. (2020). *E-learning And In-class Learning Systems For Undergraduate Engineering Students: Psychological And Pedagogical Aspects*. Bucharest: "Carol I" National Defence University. Retrieved from doi:<http://dx.doi.org/10.12753/2066-026X-20-145>
- Rahmat, H., Mashudi, R., Razak, M. H. A., Hamid, N. H. A., & Rahmat, N. (2019). The readiness of mmu lecturers towards the implementation of blended learning. *E-bangi*, 16(1), 1-8. Retrieved from <https://search.proquest.com/docview/2396318592?accountid=149218>
- Rahmat, H., Mashudi, R., Razak, M. H. A., Hamid, N. H. A., & Rahmat, N. (2019). The readiness of mmu lecturers towards the implementation of blended

- learning. *E-bangi*, 16(1), 1-8. Retrieved from <https://search.proquest.com/docview/2396318592?accountid=149218>
- Raspopovic, M., Cvetanovic, S., & Jankulovic, A. (2016). Challenges of transitioning to e-learning system with learning objects capabilities. *International Review of Research in Open and Distributed Learning*, 17(1) Retrieved from <https://search.proquest.com/docview/1770070685?accountid=149218>
- Saba, T. M., Mamman, J. S., & Nwabufo, B. N. (2017). Analysis of factors affecting the effectiveness of distance learning mode in the preparation of teachers in colleges of education, Nigeria. *AU E-Journal of Interdisciplinary Research*, 2(1) Retrieved from <https://search.proquest.com/docview/2384091871?accountid=149218>
- Sarmiento, P. J. D., Sarmiento, C. L. T., & Tolentino, R. L. B. (2021). Face-to-face classes during COVID-19: a call for deliberate and well-planned school health protocols in the Philippine context. *Journal of Public Health*, 43(2), e305-e306. Retrieved from <https://tinyurl.com/ytecvmrk>
- Scull, J., Phillips, M., Sharma, U., & Garnier, K. (2020). Innovations in teacher education at the time of COVID19: an Australian perspective. *Journal of Education for Teaching*, 46(4), 497-506. Retrieved from <https://tinyurl.com/fzmxasjt>
- Thomson, A. (2018). Technology review: Three interconnected distance learning education challenges. *The Community College Enterprise*, 24(2), 74-77. Retrieved from <https://search.proquest.com/docview/2189564351?accountid=149218>
- Toquero, C. M. (2021). Emergency remote education experiment amid COVID-19 pandemic. *IJERI: International Journal of Educational Research and Innovation*, (15), 162-176. Retrieved from <https://tinyurl.com/matfzufb>
- Torres, R. C. Addressing the Learning Gaps in the Distance Learning Modalities. Retrieved from <https://tinyurl.com/3xyn484j>
- Tupas, F. P., & Linas-Laguda, M. (2020). Blended Learning–An Approach in Philippine Basic Education Curriculum in New Normal: A Review of. *Universal Journal of Educational Research*, 8(11), 5505-5512. Retrieved from <https://tinyurl.com/4h4sewnn>
- Uleanya, C., Gamede, B. T., & Mofoluwake, O. U. (2019). Distance nexus learning challenges among rural undergraduate university students. *Journal of Gender, Information and Development in Africa (JGIDA)*, 8(1), 129-129–144. Retrieved from doi:<http://dx.doi.org/10.31920/2050-4284/2019/8n1a6>
- UNESCO International Bureau of Education (n.d.). Curriculum planning. Retrieved from <http://www.ibe.unesco.org/en/glossarycurriculum-terminology/c/curriculum-planning>
- Upoalkpajor, J. L. N., & Upoalkpajor, C. B. (2020). The impact of COVID-19 on education in Ghana. *Asian journal of education and social studies*, 23-33. Retrieved from <https://tinyurl.com/7ht4tpsc>

- Wai, C. C., & Seng, E. L. K. (2015). Measuring the effectiveness of blended learning environment: A case study in Malaysia. *Education and Information Technologies, 20*(3), 429-443. retrived from <https://bit.ly/3pgLNQc>
- Wu, F., & Lai, S. (2019). Linking prediction with personality traits: A learning analytics approach. *Distance Education, 40*(3), 330-349. Retrieved from doi:<http://dx.doi.org/10.1080/01587919.2019.1632170>
- Yuzer, T. V., & Kurubacak, G. (2004). Producing Interactive Educational Radio Programs for Distance Education. In *E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 1587-1601). Association for the Advancement of Computing in Education (AACE). Retrieved from <https://files.eric.ed.gov/fulltext/ED489941.pdf>
- Zeichner, O., & Zilka, G. (2016). Feelings of challenge and threat among pre-service teachers studying in different learning environments - virtual vs. blended courses. *I-Manager's Journal of Educational Technology, 13*(1), 7-19. Retrieved from <https://search.proquest.com/docview/1809068247?accountid=149218>
- Zhou, Y., & Wang, J. (2019). Goal orientation, learning strategies, and academic performance in adult distance learning. *Social Behavior and Personality, 47*(7), 1-20. Retrieved from doi:<http://dx.doi.org/10.2224/sbp.8195>

Appendices