Delving into the Challenges and Coping Schemes in the Transition to Alternative Learning Delivery Modality amidst COVID-19 Public Health Crisis

Mary Grace B. Llantos, EdD
Kapatalan Elementary School, Siniloan, Laguna, Philippines
Corresponding Author e-mail: *gracellantos7@gmail.com*

Abstract

Aim: This study primarily aimed to determine the challenges and effective coping schemes in order to ensure the effective delivery of learning amidst the COVID-19 public health crisis.

Methods: The descriptive-correlational method of research using a questionnaire checklist was utilized as a tool in gathering data needed for the study. Respondents were the twenty (20) teachers from Kapatalan Elementary School. The study used the total population sampling for the analysis of data. The instrument consisted of three parts, namely: the profile, challenges encountered by the respondents amidst the COVID-19, and coping schemes in the transition to alternative learning delivery modality. Frequency distribution, percentages, weighted mean, and chi-square test of association were applied to analyze the problems.

Results: The findings revealed that one of the effective coping schemes was preparing WHLPs using SLMs as reference to track learner's progress. In addition, attending webinars on managing teaching and learning in the new normal, and participating in orientations on the use of DepEd Commons and other DepEd recognized LMS were also effective.

Conclusion: The results confirmed that the challenges encountered amid COVID-19 public health crisis in terms of delivery of distance learning, education resources, and preparedness were very high. In addition, age, educational attainment, and position have a significant relationship to the challenges encountered and the coping schemes in the transition to alternative learning delivery modality. Furthermore, it was concluded that the intervention schemes to build resilient education systems for equitable and sustainable delivery of alternative learning and to reimagine education and accelerate change in teaching and learning was necessary.

Keywords: *Challenges, Coping, Alternative Learning Delivery*

INTRODUCTION

We are currently in the midst of what is possibly the most significant challenge to our lives in connection to global education, a gigantic education crisis. Since March 28, 2020, the COVID19 pandemic is inflicting over 1.6 billion children and young people who were out of school in 161 countries. That is about 80% of the world's enrolled learners. A global inclination crisis was already experienced because many learners were not learning the basic skills necessary for life. The World Bank's "Learning Poverty indicator" suggest that the percentage of children who cannot read and understand by the age of 10 (53% of children in low- and middle-income countries) prior to the outbreak. This pandemic has the potential to make these results worse if we do not act quickly. (Saavedra, 2020)

While COVID-19 is affecting public health, spillover outcomes can already be observed in education, stemming in large part from prolonged school closures.

According to DepEd Order No. 012, series 2020, entitled Adoption of the Basic Education Learning Continuity Plan for School Year 2020-2021 in the Light of the COVID-19 Public Health Emergency", the learning delivery modalities that schools can adopt may be one or a combination of the following, depending on the COVID-19 restrictions and the particular context of the learners in the school or locality. Distance learning is one of these modalities. The DepEd Order stated that, "Distance learning refers to a learning delivery modality where learning takes place between the teacher and the learners who are geographically

remote from each other during instruction. The modality has three types: Modular Distance Learning (MDL), Online Distance Learning (ODL), and television (TV)/Radio-Based Instruction.

As stated by Soland et al. (2020), virtually all K-12 learners in the Philippines are currently missing face-to-face instruction due to COVID-19. As a result, many parents and educators share a common concern that when the pandemic subsides, learners will return to school with lower performance. There are also concerns that the gap between high- and low-achieving learners will increase.

In addition, prolonged interrupted education that excludes students from the learning process can have potential costs for reversing learning gains. Higher costs come from the withdrawal of students with learning challenges (academic, socio-economic, students with exceptional/diverse educational needs, or persons with disabilities) who may not effectively cope with distance learning strategies or access to the information.

Eickelmann and Gerick (2020) pointed out that continued teaching and learning was only possible through alternative means of schooling. Teachers had to change to online teaching, requiring them to use various digital tools and resources to solve problems and implement new approaches to teaching and learning.

The abovementioned scenarios, posited great challenge to teachers while they undergo the transition to alternative learning delivery modalities. How can the teachers cope and respond to this challenge motivated the researcher to conduct this study.

Furthermore, in the light of the foregoing discussion on the challenges and coping schemes in the transition to alternative learning delivery modality amid COVID-19, the researcher came into realization that the statements above support the same variable being the subject of the present undertaking.

Research Questions

This study primarily aimed to determine the challenges and coping schemes in the transition to alternative learning delivery modality amid the COVID-19 public health crisis.

Specifically, this research sought answers to the following questions:

1. What is the profile of the respondents in terms of:
   1.1. age;
   1.2. educational attainment; and
   1.3. position?
2. What is the extent of challenges encountered by the respondents amid the COVID-19 public health crisis?
3. What is the level of respondents' coping schemes in the transition to alternative learning delivery modality?
4. Is there a significant relationship between the respondents' profile and the challenges they encountered amid the COVID-19 public health crisis?
5. Is there a significant relationship between the respondents' profile and their coping schemes in the transition to alternative learning delivery modality?
6. Is there a significant relationship between the extent of challenges encountered by the respondents amid the COVID-19 public health crisis with their coping schemes in the transition to alternative learning delivery modality?

Hypothesis

In the light of the different questions, the following null hypotheses were tested:

1. There is no significant relationship between the respondents' profile and the challenges they encountered amid the COVID-19 public health crisis.
2. There is no significant relationship between the respondents' profile and their coping schemes in the transition to alternative learning delivery modality.
3. There is no significant relationship between the extent of challenges encountered by the respondents amid the COVID-19 public health crisis with their coping schemes in the transition to alternative learning delivery modality.

METHODS

Research Design

This study sought to determine the challenges and coping schemes in the transition to alternative learning delivery modality amid the COVID-19 public health crisis.

To accomplish the objectives, the descriptive-correlational method of research using a questionnaire checklist was utilized as a tool in gathering data needed for the study.

On one hand, the research method was descriptive as it involved collection of data in order to determine the nature and degree of existing conditions.

The descriptive survey method is designed to gather information about present existing conditions. It is helpful in describing the nature of a situation as it exists at the time of the study and to explore the causes of natural phenomena. It involves collection of data in order to test hypotheses and to answer questions concerning the current status of the study.

On the other hand, it is correlational inasmuch as it attempted to determine the extent to which different relevant variables are related with each other.

As used in this study, in order to gather relevant information needed, a set of questionnaire checklists was used. The gathered data was used in analyzing and interpreting the results of the study.

Population and Sampling

The respondents in this study consisted of twenty (20) teachers from Kapatalan Elementary School during the school year 2020-2021.

The study used the total population sampling for the analysis of data. According to Laerd (2020), total population sampling is a type of purposive sampling technique that involves examining the entire population with a particular set of characteristics (e.g., specific attributes/traits, experience, knowledge, skills, exposure to an event, and others).

The abovementioned sampling technique was used in order to have a total picture of the challenges and coping schemes employed by the teachers of the same organization.

Instrumentation

A set of questionnaire checklists was used in order to gather relevant information needed in the study. The questionnaire deal with the challenges and coping schemes in the transition to alternative learning delivery modality amid the COVID-19 public health crisis. This instrument was content validated and its reliability was established prior to the conduct of the study.

The instrument consisted of three parts, namely: the profile, challenges encountered by the respondents amid the COVID-19 public health crisis, and coping schemes in the transition to alternative learning delivery modality.

Part I of the questionnaire dealt with the profile in terms of age, educational attainment, and position.

Part II focused on the extent of challenges encountered by the respondents amid the COVID-19 public health crisis.

Part III, the final part of the questionnaire, included indicators to measure the coping schemes in the transition to alternative learning delivery modality.

Part II and III of the questionnaire made use of a five-point scale. The following scoring procedure was used:

Rating	Range	Verbal Interpretation
5	4.20 – 5.00	Very High
4	3.40 – 4.19	High
3	2.60 – 3.39	Moderate
2	1.80 – 2.59	Low
1	1.00 – 1.79	Very Low

Ethical Consideration

The following ethical guidelines were observed for the research period:
1. Protected the dignity and wellbeing of participants at all times.
2. The researcher obtained the participants' permission to use their responses in the research report.
3. Confidentiality was ascertained to the respondents adhering to Republic Act 10173 or the Data Privacy Act of 2012.

Data Collection

The following procedures were made in gathering the pertinent data. The respondents were given request letter and questionnaire checklist. Data were gathered, encoded, and classified according to variables described in the statement of the problem. Furthermore, data were tabulated and analyzed according to appropriate statistical tools described in the treatment of data.

Treatment of Data

The following statistical tools for each sub-problems were applied in analyzing the data gathered.

For sub-problem 1, the profile of the respondents was examined using simple statistic techniques such as frequency distribution and percentages.

For sub-problems 2 and 3, the extent of challenges encountered by the respondents amid the COVID-19 public health crisis and the level of respondents' coping schemes in the transition to alternative learning delivery modality, weighted mean was used. The weighted mean is used to determine the average score on each category.

For sub-problems 4 and 5, to check the relationship between the profile of the respondents and the extent of challenges encountered by the respondents amid the COVID-19 public health crisis, the relationship between the profile of the respondents and the level of respondents' coping schemes in the transition to alternative learning delivery modality, the researcher performed the chi-square test of association. The chi-square test of association is used to determine if there is any association between two variables.

For sub-problem 6, to check the relationship between the extent of challenges encountered by the respondents amid the COVID-19 public health crisis with their coping schemes in the transition to alternative learning delivery modality, the researcher performed the pearson r. The Pearson correlation coefficient (r) is the most common way of measuring a linear correlation. It is a number between −1 and 1 that measures the strength and direction of the relationship between two variables. When one variable changes, the other variable changes in the same direction.

RESULTS AND DISCUSSION

This part presents the tabulated data of the study with corresponding analysis and interpretation.

The presentation of the significant findings followed the sequence of the statement of the problem namely: (1) What is the profile of the respondents in terms of age, educational attainment, and position? (2) What is the extent of challenges encountered by the respondents amid the COVID-19 public health crisis? (3) What is the level of respondents' coping schemes in the transition to alternative learning delivery modality? (4) Is there a significant relationship between the respondents' profile and the challenges they encountered amid the COVID-19 public health crisis? (5) Is there a significant relationship between the respondents' profile and their coping schemes in the transition to alternative learning delivery modality? (6) Is there a significant relationship between the extent of challenges encountered by the respondents amid the COVID-19 public health crisis with their coping schemes in the transition to alternative learning delivery modality?

The Profile of the Respondents

Table 1 presents the profile of the respondents in terms of age, educational attainment, and position.

Table 1. The Profile of the Respondents

	Profile	Frequency	Percent	Rank
A	**Age**			
	51- 60 years old	2	10	3
	41- 50 years old	8	40	2
	31 – 40 years old	9	45	1
	30 years old and below	1	5	4
	Total	**20**	**100**	
B	**Educational Attainment**			
	Master's Degree	8	40	2
	With Master's Unit	10	50	1

	Bachelor's Degree	2	10	3
	Total	**20**	**100**	
C	**Position**			
	Master Teacher I	2	10	4
	Teacher III	8	40	1
	Teacher II	4	20	3
	Teacher I	6	30	2
	Total	**20**	**100**	

As depicted on the table, the 31-40 years old with 9 out of 20 respondents or about 45 percent got the highest percentage; followed by 41-50 years old with 8 out of 20 or 40 percent; 51-60 years old with 2 out of 20 or 10 percent; and 30 years old and below with 1 out of 20 or 5 percent, got the lowest percentage.

Concerning the educational attainment of the respondents, with Master's Unit with 10 out of 20 respondents or about 50 percent got the highest percentage; followed by Master's Degree Holder with 8 out of 20 or 40 percent; and Bachelor's Degree Holder with 2 out of 20 or 10 percent, got the lowest percentage.

In terms of position, Teacher III with 8 out of 20 respondents or about 40 percent got the highest percentage; followed by Teacher I with 6 out of 20 or 30 percent; Teacher II with 4 out of 20 or 20 percent; and Master Teacher I with 2 out of 20 or 10 percent, got the lowest percentage.

The results implied that the majority of the respondents are 31-40 years old, with a Master's unit, and are Teacher III. Therefore, the respondents can be classified as proficient teachers.

The Challenges Encountered by the Respondents amid the COVID-19 Public Health Crisis

Table 2 reflects the challenges encountered by the respondents amid the COVID-19 public health crisis.

Table 2. The Challenges Encountered by the Respondents amid the COVID-19 Public Health Crisis

		Frequency	**Percent**	**Rank**
1	Preparedness	5	25	3
2	Delivery of distance learning	8	40	1
3	Using education resources	7	35	2
	Total	**20**	**100**	

It can be gleaned in the table that in terms of the challenges encountered by the respondents amid the COVID-19 public health crisis the data revealed that delivery of distance learning with 8 out of 20 respondents or about 40 percent got the highest percentage; followed by using education resources with 7 out of 20 or 35 percent; and preparedness with 5 out of 20 or 25 percent, got the lowest percentage.

The results suggest that during the outbreak of the COVID-19 health crisis, respondents faced several challenges related to the continued delivery of education. These challenges arose because what is happening now is different than usual. Face-to-face teaching is not allowed, so distance learning has become a form of teaching. Such a change requires a lot of preparation, including educational resources.

These findings is related to what Bozkurt (2019) noted, that concerning COVID 19, suddenly everyone would have to switch to distance learning for an indefinite time because the alternative to it was stopping any education, which is of course, unacceptable. The situation has shown how realistic it is to switch to distance learning and what problems exist.

The Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Preparedness

Table 3.1 reveals the respondents' coping schemes in the transition to alternative learning delivery modality in preparedness.

Table 3.1. The Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Preparedness

Preparedness	Frequency	Percent	Rank
I ensure that…			
1 lesson exemplars in all learning areas were prepared, and quality assured	5	25	2
2 Weekly Home Learning Plan have been accomplished using SLMs as a reference and has considered the learning competencies, fundamental concept/essential understanding, and the learning tasks/formative assessments needed to track learner's progress	7	35	1
3 parents have received copies of the Weekly Home Learning Plan	3	15	4
4 the available SLMs and K to 12 and LMs have been packed and properly labeled for easy distribution	1	5	5
5 worksheets in different subjects have been reproduced and distributed to learners/parents	4	20	3
Total	**20**	**100**	

It can be gathered from the table that the indicators of coping schemes in the transition to alternative learning delivery modality in terms of preparedness were ranked as follows: (1) indicator no. 2, Weekly Home Learning Plan have been accomplished using SLMs as a reference and has considered the learning competencies, fundamental concept/essential understanding and the learning tasks/formative assessments needed to track learner's progress, with 7 out of 20 respondents or 35 percent; (2) indicator no. 1, lesson exemplars in all learning areas were prepared and quality assured, with 5 out of 20 respondents or 25 percent; (3) indicator no. 5, worksheets in different subjects have been reproduced and distributed to learners/parents, with 4 out of 20 respondents or 20 percent; (4) indicator no. 3, parents have received copies of Weekly Home Learning Plan, with 3 out of 20 respondents or 15 percent; and (5) indicator no. 4, the available SLMs and K to 12 and LMs have been packed and properly labeled for easy distribution, with 1 out of 20 respondents or 5 percent.

The results proposed that despite the challenges encountered during the COVID-19 outbreak, with proper planning, preparation and coordination, the delivery of learning content could still be possible.

This result can be associated with a study conducted by Fedina et al. (2017) which found that 90% of all pre-school and special education teachers surveyed were motivated to conduct distance learning even though they have diverse learners, lack of specialists, are taught at home, are in long-term medical treatment, have short stays with groups or family visit and private school.

The Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Delivery of Distance Learning

The respondents' coping schemes in the transition to alternative learning delivery modality in terms of distance learning are indicated in Table 3.2.

Table 3.2. The Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Delivery of Distance Learning

	Delivery of Distance Learning	Frequency	Percent	Rank
	I attended training programs on...			
1	Capacity Building for Teachers on the Development and Utilization of IDEA Lesson Exemplar.	4	20	3
2	Capacity Building on Learning Delivery Modality Course	5	25	2
3	Capacity Building on GSuite for Education for Teachers	3	15	4
4	Cluster/School-based Webinar on Managing Teaching and Learning in the new learning environment	7	35	1
5	Regular meetings on curriculum concern	1	5	5
	Total	**20**	**100**	

As reflected on the table, the data disclosed that the indicators of coping schemes in the transition to alternative learning delivery modality in terms of delivery of distance learning were ranked as follows: (1) indicator no. 4, Cluster/School-based Webinar on Managing Teaching and Learning in the new learning environment, with 7 out of 20 respondents or 35 percent; (2) indicator no. 2, Capacity Building on Learning Delivery Modality Course, with 5 out of 20 respondents or 25 percent; (3) indicator no. 1, Capacity Building for Teachers on the Development and Utilization of IDEA Lesson Exemplar, with 4 out of 20 respondents or 20 percent; (4) indicator no. 3, Capacity Building on GSuite for Education for Teachers, with 3 out of 20 respondents or 15 percent; and (5) indicator no. 5, Regular meetings on curriculum concern, with 1 out of 20 respondents or 5 percent.

The results implied that attending the webinar on managing teaching and learning in the new learning environment was one of the most effective coping schemes in the transition to the alternative learning method. This just goes to show the importance of the professional development of teachers who are the main drivers of delivering learning content. By participating in webinars, the teachers were made familiar with different teaching techniques and strategies in dealing with ICT.

These findings is related with what Fraillon et al. (2019) pointed out, contrary to expectations, the status of junior teachers as members of the generation of "digital natives" does not guarantee that they have generally developed sophisticated digital skills. COVID- 19 pandemic situation has just made visible what the consequences will be when schools fail to catch up on the basic ICT transformation process. The provision of learning opportunities will be vital in the professional development of teachers.

The Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Using Education Resources

Table 3.3 reflects the respondents' coping schemes in the transition to alternative learning delivery modalities using education resources.

Table 3.3. The Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Using Education Resources

	Using Education Resources	Frequency	Percent	Rank
	I joined orientations on the use of...			
1	different learning modalities	6	30	2
2	Weekly Home Learning Plan	2	10	4
3	available DepEd Commons and other DepEd recognized Learning Management System such as Google Classroom, Zoom, Google Meet, and others	8	40	1
4	Standard Screen Time (for Online Distance Learning, Digitalized Modular Distance Learning)	1	5	5

5	other training such as but not limited to uploading documents, pre-recorded video lessons, audio lessons and self-learning modules, typing discussions posts, modelling virtual collaboration, navigating modules and designing assessment	3	15	3
Total		**20**	**100**	

It can be deduced in the table that the indicators of coping schemes in the transition to alternative learning delivery modality in terms of using education resources were ranked as follows: (1) indicator no. 3, available DepEd Commons and other DepEd recognized Learning Management System such as Google Classroom, Zoom, Google Meet, and others, with 8 out of 20 respondents or 40 percent; (2) indicator no. 1, different learning modalities, 6 out of 20 respondents or 30 percent; (3) indicator no. 5, other training such as but not limited to uploading documents, pre-recorded video lessons, audio lessons and self-learning modules, typing discussions posts, modeling virtual collaboration, navigating modules and designing assessment, with 3 out of 20 respondents or 15 percent; (4) indicator no. 2, Weekly Home Learning Plan, with 2 out of 20 respondents or 10 percent; and (5) indicator no. 4, Standard Screen Time (for Online Distance Learning, Digitalized Modular Distance Learning), with 1 out of 20 respondents or 5 percent.

The results suggest that teachers and the entire school system were not alone or left behind during the COVID-19 outbreak. DepEd has put in place a mechanism to support the continued delivery of learning despite the pandemic. These mechanisms include DepEd Commons and other DepEd-approved Learning Management Systems (LMS).

These findings is supported by what Chauhan (2017) emphasized that there is evidence that digital technologies can offer new opportunities for teaching and learning, and the use of ICT has become increasingly popular in elementary and secondary schools in recent decades.

The Relationship between the Respondents' Profile and the Challenges Encountered amid the COVID-19 Public Health Crisis

Table 4 shows the relationship between the respondents' profile and the challenges they encountered amid the COVID-19 public health crisis.

Table 4. The Relationship between the Respondents' Profile and the Challenges Encountered amid the COVID-19 Public Health Crisis

Profile	χ2 Value	P-Value	Relationship
Age	24.871	**0.024**	**Significant**
Educational Attainment	89.795	**0.001**	**Significant**
Position	58.803	0.520	Not Significant

As represented on the results of the study, it showed that the respondent's profiles in terms of age and educational attainment have a significant relationship to the challenges they encountered amid the COVID-19 public health crisis. These were proven with the obtained value of 24.871 and 89.795 at 0.024 and 0.001 levels of probability, respectively.

The results proposed that in response to the growing importance of the ICT transformation process in education systems, the categories of instructional knowledge have been broadened to include the knowledge needed to address the challenges related to the use of ICT in teaching and learning at school.

This result is connected to what Eickelmann and Gerick (2020) found that continuous teaching and learning were only possible through alternative forms of schooling. The teachers had to switch to online teaching, which forced them to use various digital tools and resources to solve problems and create new approaches to teaching and learning.

The Relationship between the Respondents' Profile and their Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Preparedness

Table 5.1 reflects the relationship between the respondents' profile and their coping schemes in the transition to alternative learning delivery modality in terms of preparedness.

Table 5.1. The Relationship between the Respondents' Profile and their Coping Schemes in the Transition to Alternative Learning Delivery Modality in terms of Preparedness

Profile	χ2 Value	P-Value	Relationship
Age	50.169	0.813	Not Significant
Educational Attainment	84.869	**0.019**	**Significant**
Position	177.803	0.060	Not Significant

The respondent's profile in terms of educational attainment have a significant relationship to their coping schemes in the transition to alternative learning delivery modality in terms of preparedness. These were proven with the obtained value of 84.869 at 0.019 level of probability. However, position and age do not have a significant relationship to it.

The results implied that digital tools should first be systematically introduced to students and maybe even their parents and implemented in everyday teaching and learning processes. The situation of the COVID-19 pandemic has just made visible the consequences of schools not catching up on the fundamental process of ICT transformation. It is therefore crucial to provide learning opportunities in teachers' professional development.

These findings negate to the study conducted by Khalif et al. (2020), teachers belonging to generation X report experiencing feelings of unpreparedness, incompetence, and ambiguity in distance learning that led to negative attitudes towards the concept. They need pedagogical technology and literacy in distance learning based on this finding.

The Relationship between the Respondents' Profile and their Coping Schemes in the Transition to Alternative Learning Delivery Modality in Terms of Delivery of Distance Learning

Table 5.2 indicated the relationship between the respondents' profile and their coping schemes in the transition to alternative learning delivery modality in terms of distance learning delivery.

Table 5.2. The Relationship between the Respondents' Profile and their Coping Schemes in the Transition to Alternative Learning Delivery Modality in Terms of Delivery of Distance Learning

Profile	χ2 Value	P-Value	Relationship
Age	48.493	0.613	Not Significant
Educational Attainment	96.713	**0.000**	**Significant**
Position	84.460	**0.044**	**Significant**

It can be gleaned in the table that the respondent's profiles in terms of educational attainment and position have a significant relationship to their coping schemes in the transition to alternative learning delivery modality in terms of delivery of distance learning. These were proven with the obtained value of 96.713 and 84.460 at 0.000 and 0.004 levels of probability, respectively.

The results suggest that teachers with more years of teaching experience are by default in the older age group and are therefore relatively less tech-savvy. This particular group of teachers needs more help using the online tools to deliver their classes. However, veteran teachers have had the opportunity to attend the necessary seminars and workshops to offer distance learning.

This result supported the study of Ventayin (2018) on the preparation of DepEd teachers for online teaching. It showed that despite limited experience in distance learning, such as technical skills, time management, knowledge, and attitude in online teaching, they can still cope with the trends in distance learning.

The Relationship between the Respondents' Profile and their Coping Schemes in the Transition to Alternative Learning Delivery Modality in Terms of Using Education Resources

Table 5.3 presents the relationship between the respondents' profile and their coping schemes in the transition to alternative learning delivery modality in terms of using education resources.

Table 5.3. The Relationship between the Respondents' Profile and their Coping Schemes in the Transition to Alternative Learning Delivery Modality in Terms of Using Education Resources

Profile	χ2 Value	P-Value	Relationship
Age	149.557	**0.040**	**Significant**
Educational Attainment	67.500	**0.013**	**Significant**
Position	162.156	**0.006**	**Significant**

As depicted on the study results, it showed that the respondent's profiles in terms of age, educational attainment, and position have a significant relationship to their coping schemes in the transition to alternative learning delivery modality in terms of using education resources. These were proven with the obtained value of 149.557, 67.500, and 162.156 at 0.040, 0.013, and 0.006 levels of probability, respectively.

The results proposed that it would be beneficial to use multiple mediums to deliver audio, print and visual academic lessons such as television and radio, with programming and monitoring based on conducive learning time. Also, continuous monitoring and evaluation of the distance learning program would go a long way towards improving the education delivery system.

The findings relate to what Song and Chen (2019) stated that in this new situation, which requires adaptability to all new technologies, the youngest might have less difficulty while the elderly are less interested in ICT. This factor also goes partly beyond the personal since the aging of the teaching staff is a reality. It needs to be taken into account when developing coping schemes to deal with the pandemic.

The Relationship between the Challenges Encountered by the Respondents and their Coping Schemes in the Transition to Alternative Learning Delivery Modality

Table 6 reflects the relationship between the challenges encountered by the respondents and their coping schemes in the transition to alternative learning delivery modality.

Table 6. The Relationship between the Challenges Encountered by the Respondents and their Coping Schemes in the Transition to Alternative Learning Delivery Modality

Challenges Encountered and their Coping Schemes	r-value	Degree of Relationship	P-value	Verbal Interpretation
Preparedness	0.66	High Correlation	**0.04**	**Significant**
Delivery of distance learning	0.85	Very High Correlation	**0.00**	**Significant**
Using education resources	0.69	High Correlation	**0.03**	**Significant**

The findings revealed that there is a significant relationship between the challenges encountered by the respondents and their coping schemes in the transition to alternative learning delivery modality.

In terms of preparedness, this is proven with the obtained r-value of 0.66; degree of relationship which showed high correlation at 0.04 level of probability. The r-value implies that an increase in the challenges encountered by the respondents, there is 0.66 increase in their coping scheme.

In addition, considering the delivery of distance learning this is proven with the obtained r-value of 0.85; degree of relationship which showed very high correlation at 0.00 level of probability. The r-value implies that an increase in the challenges encountered by the respondents, there is 0.85 increase in their coping scheme.

Furthermore, in terms of using education resources, this is proven with the obtained r-value of 0.69; degree of relationship which showed high correlation at 0.03 level of probability. The r-value implies

that an increase in the challenges encountered by the respondents, there is 0.69 increase in their coping scheme.

The results implied that COVID-19 is not only causing health crises around the world, but also affecting all areas of life, including education. Educators turned to online platforms to reach students, webinars became a temporary classroom, parents were called to monitor at home, and students were deprived of social interaction with their peers. Teachers and students have been advised to implement alternative learning to mitigate school cancellation of classes due to the COVID-19 outbreak.

These findings relate to what Eickelmann and Drossel (2020) surveys have shown, one of the primary concerns of teachers is to maintain social contact with students and their parents. Other concerns relate to the main challenges of teaching in online environments during the COVID-19 pandemic. The delivery of online instruction (e.g. via video conferencing systems) has served as a general requirement for online teaching and learning interaction, particularly to facilitate assignments for the whole class during the COVID-19 lockdown. As teachers were concerned about enabling students to access a significant part of the school year's curriculum content from home, the introduction of (new) learning content to stimulate students' cognitive activation turned out to be another challenge. Providing homework differentiation provided a means to reach all students during distance learning through adaptive instruction.

Conclusion

Based on the preceding findings posited in this study, the following conclusions were drawn:

1. The challenges encountered amid the COVID-19 public health crisis in terms of delivery of distance learning, education resources, and preparedness were very high. This happened because many were not used to distance learning. Continuous teaching and learning were only possible through alternative forms of schooling. The teachers had to switch to online teaching, which forced them to use various digital tools and resources to solve problems and create new approaches to teaching and learning.

2. Age and educational attainment have a significant relationship to the challenges encountered amid the COVID-19 public health crisis. Contrary to the expectations, early career teachers' status as belonging to the generation of 'digital natives' does not guarantee that they have developed sophisticated digital skills in general.

3. Age, educational attainment, and position have a significant relationship to the coping schemes in the transition to alternative learning delivery modality. It showed that despite limited experience in distance learning, such as technical skills, time management, knowledge, and attitude, they can still cope with the trends in distance learning.

4. Furthermore, it was concluded that the intervention schemes to build resilient education systems for equitable and sustainable delivery of alternative learning and to reimagine education and accelerate change in teaching and learning was necessary.

References

Bozkurt, A. (2019). *From Distance Education to Open and Distance Learning*. Retrieved January 20, 2021, from https://doi.org/10.4018/978-1-5225-8431-5.ch016

Chauhan, S. (2017). *A Meta-analysis of the Impact of Technology on Learning Effectiveness of Elementary Students. Computers & Education*. Retrieved January 15, 2021, from https://doi:10.1016/j.compedu.2016.11.005.

DepEd Order No. 012 (2020). *Adoption of the Basic Education Learning Continuity Plan for School Year 2020-2021 in the Light of the COVID-19 Public Health Emergency*. Retrieved January 18, 2021, from https://www.deped.gov.ph/wp-content/uploads/2020/06/DO_s2020_012.pdf

Eickelmann, B., and Gerick, J. (2020). *Learning with Digital Media: Objectives in Times of Corona and under Special Consideration of Social Inequities*. Retrieved January 7, 2021, from https://doi:10.31244/9783830992318.09.

Fedina, N., Burmykina, I., Zvezda, L., Pikalova, O., Skudnev, D., and Voronin, I. (2017). *Study of Educators' and Parents' Readiness to Implement Distance Learning Technologies in Preschool Education in Russia. Eurasia Journal of Mathematics, Science and Technology Education*. Retrieved January 6, 2021, from https://doi.org/10.12973/ejmste/80802

Fraillon, J., Ainley, J., Schulz, W., Friedman, T., and Duckworth, D. (2019). *Preparing for Life in a Digital World: The IEA International Computer and Information Literacy Study 2018 International Report*. New York: Springer.

Jorge, C. (2020). *PH Education and the New Normal*. Retrieved January 23, 2021, from https://opinion.inquirer.net/129286/ph-education-and-the-new-normal

Khlaif, Z., Salha, S., Affouneh, S., Rashed, H., and El Kimishy, L. (2020). *The COVID-19 Epidemic: Teachers' Responses to School Closure in Developing Countries, Technology, Pedagogy, and Education*. Retrieved January 26, 2021, from https://doi:10.1080/1475939X.2020.1851752

Laerd (2020). *Total Population Sampling*. Retrieved January 18, 2021, from https://dissertation.laerd.com/total-population-sampling.php

Saavedra, J. (2020). *Educational Challenges and Opportunities of the Coronavirus (COVID-19) Pandemic*. Retrieved January 1, 2021, from https://blogs.worldbank.org/education/educational-challenges-and-opportunities-covid-19-pandemic

Soland, J., Kuhfeld, M., Tarasawa, B., Johnson, A., Ruzek, E., and Liu, J. (2020). *The Impact of COVID-19 on Student Achievement and What It May Mean for Educators*. Retrieved January 7, 2021, from https://www.brookings.edu/blog/brown-center-chalkboard/2020/05/27/the-impact-of-covid-19-on-student-achievement-and-what-it-may-mean-for-educators/

Song, Y., and Chen, Y. (2019). *Information and Communication Technology Among Early and Late Middle-Aged Adults in Urban China: Daily Use and Anticipated Support in Old Age*. Retrieved January 4, 2021, from https://doi:10.1111/ajag.12668

The Manila Times (2020). *Creating and Coping with New Norms*. Retrieved January 7, 2021, from https://www.manilatimes.net/2020/04/30/campus-press/creating-and-coping-with-new-norms/720820/

Ventayin, R. J. (2018). *Teachers' Readiness in Online Teaching Environment: A Case of Department of Education Teachers. Journal of Education, Management and Social Sciences*. Retrieved January 29, 2021, from https://www.psurj.org/jemss

Worldbank (2020). Guidance Note on Education Systems' Response to COVID19. Retrieved January 7, 2021, from https://documents1.worldbank.org/curated/en/450881585235950757/Guidance-Note-on-Education-Systems-Response-to-COVID19.pdf