

The Adaptability of Innovative Strategies for Quality Education in Pre-School amid the Covid-19 Pandemic

Ned Kelly Arenos Agbunag and Desiree Bumatang Wangit

University of the Cordilleras, Baguio City, Philippines

Abstract

Teaching work involves novelty, change, and unpredictability, which is a defining element of the profession. As we emerge from COVID-19, it's critical to recognize the significant improvements made by teachers, schools, and districts, as well as the new ideas and practices that have emerged or may arise. Educators first converted to 100% online training, then turned back to teaching pupils both face-to-face and online. And just as it is necessary to plan for learners who have fallen behind with their learning, we must also grab the chance to recognize and learn from new and innovative approaches that have evolved as a result of the pandemic. Adaptability is defined as the ability to adjust successfully to change. In this study, the researchers discussed the adaptability of innovative preschool education strategies in the midst of the pandemic. The impacts of innovative teaching strategies are discussed, as well as some significant implications for practice and research that are essential to the development of teachers' adaptability and increasing understanding in this important area. The study will utilize descriptive method employing the questionnaire design. Data were gathered through a series of questions asked from individuals and obtained statistically useful information about the given topic. There were ten teachers as respondents. The findings of the study served as a basis for educators on the effects of innovative strategies in preschool amidst the pandemic. Results are going to be useful for kindergarten teachers to look into the strategies that work best during the time of crisis.

Keywords: innovative strategies, adaptability, education strategies, Covid-19

Introduction

As the COVID-19 Pandemic takes a toll over the globe, it's critical to focus on the educational needs of children during this time of crisis. Despite the pandemic's devastating effects, this worldwide crisis has provided an extraordinary time for learning.

The pandemic has had an influence on education systems all around the world, with almost 1.5 billion students forced to leave schools. The crisis provides a crucial opportunity for educators to reconsider the present system and consider alternative approaches to providing high-quality education to millions of students. This is an opportunity for the national education community to "rebuild better." (OCDE, 2020)

Although students with access to digital devices and the internet may not constitute the majority in most countries, assisting governments in establishing effective forms of online education will free up institutional capacities and resources, allowing them to focus on

providing alternative learning methods for those students who do not have such opportunities. This annotated list of online educational resources for students, instructors, and parents is meant to assist governments and other education officials in researching and evaluating different approaches to keep kids educated during the COVID-19 Pandemic. It can be utilized by people creating or upgrading an education continuity plan by including some of these resources directly into their plan or utilizing them as a model for developing their own online educational materials. (OCDE, 2020)

In any event, teachers, professors, and students attempted to overcome these challenges with the use of their own resources, frequently without the assistance of their institutions. This demonstrates the category's dedication to the educational philosophy. The majority of teachers, professors, and students have already demonstrated their ability to deal with the new technologies and procedures introduced during the COVID-19 epidemic. (Scavarda, et al., 2021)

It is important to note in the study of (Santos et al., 2021) that the usage of technology can help with the teaching–learning process. It would be a step backwards for education if we did not employ technology. Teachers, professors, and students are all undergoing adaptations with the goal of providing new teaching and learning methods. Let us be hopeful. It's a fantastic opportunity to share information and see how technological tools may make learning more accessible and enhance achievement education in the post-COVID-19 era.

The main objective of this study is to determine the adaptability of innovative strategies for quality education among Pre-School teachers in Lucban Elementary School. Specifically, it sought to answer what is the level of agreement of adaptability of innovative strategies for quality education among the pre-school teachers in terms of age, teaching experience, and use of Digital Resources in month. It also sought to answer what the adaptability practices among the pre-school teachers are towards innovative strategies for quality education, and the adaptability applications among the pre-school teachers towards innovative strategies for quality education.

This study is intended to assist education leaders at preschool level, in both public and private educational schools, in developing adaptive and effective educational strategies for quality education during the Covid-19 pandemic.

Methodology

The researchers utilized a descriptive research design with a quantitative approach in conducting the study. This Digital resource survey was used particularly to gather the thoughts of the respondents on digital resources for instructional practice. Referring to any sort of freely available digital content for education – some examples include electronic teaching aids such as lesson plans, interventions, assessment software, online databases (such as census data, education statistics), game-based environments, animations and simulations, video clips, podcasts, etc. The study was conducted in Lucban Elementary School, Baguio City. The respondents of this study were composed of 10 kindergarten teachers. Because of the COVID-19 pandemic and the community protocols, the researchers were only able to get a sample size of 10 which was less than the originally intended number. This, however, did not compromise the quality of data and information needed in the study. In gathering data for this study, the researchers used a digital survey. The digital resource survey was adopted from Project Tomorrow (2021); thus, the questionnaire is reliable. The questions for the respondents were

based on the statement of the problem and their role or expertise. The researcher presented a letter of request to the principal of the school for the study to be conducted in Lucban Elementary School. All data were gathered through sending of the digital resource survey to the respondents and tallied using Microsoft excel with 4-point Likert Scale, with the score range of 1.00-1.49 for Strongly Disagree (SD), 1.50-2.49 for Disagree (D), 2.50-3.49 for Agree (A), and 3.50-4.00 for Strongly Agree (SA) for tables one to four, and with the score range of 1.00-1.49 for Never or Rarely (N/R), 1.50-2.49 for Sometimes (S), 2.50-3.49 for Often (O), and 3.50-4.00 for Usually or Always (U/A) for tables five and six. The researchers employed an online digital survey questionnaire that could be downloaded. The short survey elicits responses on digital resources for instructional practice from respondents. Electronic teaching aids such as lesson plans, interventions, assessment software, online databases (such as census data, education statistics), game-based environments, animations and simulations, video clips, podcasts, and other types of digital content for education are all examples of "digital resources." The data is examined using the cross-tabulation method, which is one of the most often used quantitative data analysis methods. It is a recommended strategy since it draws inferences between multiple data sets in the research study using a simple tabular form. It contains information that is either mutually exclusive or has some relationship to one another.

Results and Discussion

The following findings are based on the project's research, which included a survey on the adaptability of innovative pre-school education strategies in the face of the Covid-19 pandemic:

Table 1: Level of Agreement on the Adaptability of Digital Resources Among Pre-School Teachers

ITEMS	MEAN	DE
I feel confident matching digital resources to the learning goals I set for my students	3.50	SA
I am concerned about how to use digital resources creatively	3.60	SA
I often edit digital resources to fit my specific classroom context	3.40	A
I like using digital resources	3.60	SA
I am concerned about how using digital resources might change my relationships with students	3.40	A
I have trouble finding the right digital resources to use	3.30	A
I use digital resources to reinforce concepts that I've already introduced	3.50	SA
I often have technical problems when I try to use digital resources (i.e. computer or connectivity problems)	3.50	SA
I usually have enough time to plan lessons using digital resources	3.00	A
I received adequate training on the use of digital resources in my pre certification training program	3.20	A
I am skilled at using technology tools to access digital content	3.30	A
‡ GRAND MEAN	3.39	A

Table 1 shows the level of agreement on the adaptability of digital resources among pre-school teachers. With a mean of 3.60, the respondents agreed that using digital resources as a form of reinforcement is one of their innovative strategies in the face of the pandemic. However, with a mean of 3.60, it causes respondents to be concerned about how to use digital resources creatively because they have difficulty finding the right digital resources to use and frequently experience technical problems while trying to use digital resources (i.e., computer or connectivity problems). With a mean of 3.40, the respondents are also concerned about how using digital resources might change their relationships with their students. Therefore, as the respondents adapt and become familiar with digital resources, concerns also arise like how to use digital resources creatively, how using it will change their relationship with their students, having trouble finding the right digital resources to use, and experiencing technical problems while using digital resources.

Table 2: Comparison of the Level of Agreement on the Adaptability of Digital Resources Among Pre-school Teachers Along the Use of Digital Resources

ITEMS	1-5 Times per month		6-10 times per month		More than 10 times	
	Mean	DE	Mean	DE	Mean	DE
I feel confident matching digital resources to the learning goals I set for my students	3.25	A	3.67	SA	3.67	SA
I am concerned about how to use digital resources creatively	3.25	A	4.00	SA	3.67	SA
I often edit digital resources to fit my specific classroom context	2.75	A	3.67	SA	4.00	SA
I like using digital resources	3.25	A	4.00	SA	3.67	SA
I am concerned about how using digital resources might change my relationships with students	3.25	A	3.67	SA	3.33	A
I have trouble finding the right digital resources to use	3.25	A	3.67	SA	3.00	A
I use digital resources to reinforce concepts that I've already introduced	3.00	A	4.00	SA	3.67	SA
I often have technical problems when I try to use digital resources (i.e. computer or connectivity problems)	3.50	SA	3.33	A	3.67	SA
I usually have enough time to plan lessons using digital resources	2.75	A	3.33	A	3.00	A
I received adequate training on the use of digital resources in my pre certification training program	2.75	A	3.33	A	3.20	A
I am skilled at using technology tools to access digital content	3.00	A	3.33	A	3.30	A

Table 2 shows comparison of the level of agreement on the adaptability of digital resources among pre-school teachers along the use of digital resources. The findings show that as the use of digital resources increases month after month, it has a good and negative impact on the respondents' adaptability. The more time respondents spend using digital resources, the more confident and skillful they are at reinforcing digital tools in their lessons. However, the more they use digital resources, the more difficult it is for them to discover the appropriate digital materials to reinforce. Due to varieties of options incorporating the applications that are being used in teaching, it causes confusion since you have to look in into all the applications.

Table 3: Comparison of the Level of Agreement on the Adaptability of Digital Resources Among Pre-school Teachers Along the Age

ITEMS	Below 29 years old		30- 39 years old		40-49 years old		above 50 years old	
	Mean	DE	Mean	DE	Mean	DE	Mean	DE
I feel confident matching digital resources to the learning goals I set for my students	3.60	SA	3.33	A	4.00	SA	3.00	A
I am concerned about how to use digital resources creatively	3.40	A	4.00	SA	4.00	SA	3.00	A
I often edit digital resources to fit my specific classroom context	3.40	A	3.67	SA	4.00	SA	2.00	D
I like using digital resources	3.80	SA	3.67	SA	4.00	SA	2.00	D
I am concerned about how using digital resources might change my relationships with students	3.20	A	3.67	SA	4.00	SA	3.00	A
I have trouble finding the right digital resources to use	3.00	A	3.33	A	4.00	SA	4.00	SA
I use digital resources to reinforce concepts that I've already introduced	3.40	A	3.67	SA	4.00	SA	3.00	A
I often have technical problems when I try to use digital resources (i.e. computer or connectivity problems)	3.20	A	3.67	SA	4.00	SA	4.00	SA
I usually have enough time to plan lessons using digital resources	3.20	A	2.67	A	4.00	SA	2.00	D
I received adequate training on the use of digital resources in my pre certification training program	3.20	A	3.33	A	4.00	SA	2.00	D
I am skilled at using technology tools to access digital content	3.20	A	3.67	SA	4.00	SA	2.00	D

Table 3 shows comparison of the level of agreement on the adaptability of digital resources among pre-school teachers along the age. The findings show that respondents under the age of 29 adapt well to digital resources. The younger you are the easier it is to adapt to digital resources because it is a part of your daily living. In today's society everything we do corporates digital resources. It is a platform of today's generation. The respondents in the age group of 30-

39 are adapting on time, with a mean of 2.67 agreeing that they typically have adequate time to plan lessons using digital resources. However, respondents over the age of 50 had difficulty finding appropriate digital resources, and frequently encounter technological difficulties while attempting to use digital resources (i.e., computer or connectivity problems). Due to having a single respondent, 30–39-year-old have a stable standard mean of 4.00.

Table 4: Comparison on the Level of Agreement on the Adaptability of Digital Resources Among Pre-school Teachers Along Teaching Experience

ITEMS	1-3 years		4-10 years		11-15 years		Above 16 years	
	Mean	DE	Mean	DE	Mean	DE	Mean	DE
I feel confident matching digital resources to the learning goals I set for my students	4.00	SA	3.57	SA	3.00	A	3.00	A
I am concerned about how to use digital resources creatively	4.00	SA	3.71	SA	3.00	A	3.00	A
I often edit digital resources to fit my specific classroom context	3.00	A	3.57	SA	2.00	D	4.00	SA
I like using digital resources	4.00	SA	3.86	SA	2.00	D	3.00	A
I am concerned about how using digital resources might change my relationships with students	3.00	A	3.71	SA	3.00	A	2.00	D
I have trouble finding the right digital resources to use	4.00	SA	3.14	A	4.00	SA	3.00	A
I use digital resources to reinforce concepts that I've already introduced	4.00	SA	3.57	SA	3.00	A	3.00	A
I often have technical problems when I try to use digital resources (i.e. computer or connectivity problems)	3.00	A	3.43	A	4.00	A	4.00	SA
I usually have enough time to plan lessons using digital resources	4.00	SA	3.00	A	2.00	D	3.00	A
I received adequate training on the use of digital resources in my pre certification training program	4.00	SA	3.29	A	2.00	D	3.00	A
I am skilled at using technology tools to access digital content	3.00	A	3.57	SA	2.00	D	3.00	A

Table 4 shows comparison on the level of agreement on the adaptability of digital resources among pre-school teachers along teaching experience. According to the findings, as respondents' teaching experience grows, they become older in the institution which lessens their confidence in using digital resources. They're transitioning from traditional to modern. This means that as they get older in the institution, their confidence in matching digital resources to the learning goals they set for their students decreases by a mean of 3.00, but they become less concern about how it may affect their relationships with their students with a mean of 2.00 because they are more concern in learning the use of digital resources.

Table 5: Practices in Using Digital Resources

ITEMS	MEAN	DE
I use online tutorials to learn more about digital resources	3.10	O
I look to my school's technology coach/department for suggestions on which digital resources to use (if you do not have this at your school, mark "never")	2.80	O
I use online networking sites (i.e. Facebook, wikis, etc.) to find digital resources	3.30	O
I ask my students to help me find digital resources	1.80	S
I ask my colleagues about the digital resources they use in their classrooms	3.20	O
I observe my colleagues' classrooms to learn about how they use digital resources	3.30	O
I adapt digital resources to meet the specific learning needs of my students	3.30	O
I use online digital libraries to search for digital resources	3.10	O
I use digital resources in my direct classroom instruction (i.e. incorporating simulations, wikis, videos, etc.)	2.90	O
I encourage my students to use digital resources to work independently (i.e. online remediation tools, educational games, etc.)	3.10	O
I use digital resources to introduce new concepts or topics	3.20	O
GRAND MEAN	3.01	O

Table 5 shows practices in using digital resources. The grand mean of 3.01 indicates that respondents “Often” utilize the given strategies to reinforce digital resources in their lessons. The table shows that the respondents “Often” use the following to learn about and how to use digital resources: online tutorials, online networking sites, ask their colleagues, observe their colleagues’ classrooms, and online digital libraries. However, with a mean of 1.80, the respondents “Sometimes” ask their pupils for aid in selecting the correct digital resources to use.

Table 6: Applications in Using Digital Resources

ITEMS	MEAN	DE
I use digital resources in my personal life outside the classroom	3.30	O
I meet with my Instructional Coach for mentoring/tutoring sessions about how to use digital resources (if you don't have an instructional coach, select "never")	2.30	S
I surf the Internet for new ideas about how to use digital resources in my instruction	3.60	U/A
I use a teacher directed approach to classroom instruction	3.10	O
I attend sessions on digital resource incorporation at local, state or national conferences	3.20	O
I use digital resources to plan my lessons	3.00	O
I participate in district or school provided professional development on using digital resources in the classroom	3.30	O
I change the way that students are grouped to better incorporate digital resources in my classroom	2.80	O
I read online reviews of digital resources	3.10	O
I go online to watch prerecorded presentations or talks about digital resources	3.40	O
I participate in online webinars (seminars) about digital resources	3.20	O
GRAND MEAN	3.12	O

Table 6 shows applications in using digital resources. Based on the grand mean of 3.12, the respondents “Often” do the stated applications on the table for the reinforcement of digital resources like using it in their personal lives outside their classrooms, attending local, state, or national conferences on digital resource incorporation, and participating in district or school provided professional development on using digital resources in the classroom. However, with a mean of 3.60, they “Usually/Always” scan the internet for fresh ideas about how to integrate digital resources in their instruction as an assistance, and with a mean of 2.30, they “Sometimes” meet with their Instructional Coach for mentoring/tutoring sessions about how to use digital tools. The table shows that the thing that the respondents “Always” do in regards with applications in using digital resources is to surf the internet for new ideas about how to use digital resources in their instruction.

Conclusion and Recommendation

One of the unique tactics used by pre-school instructors in the face of the epidemic is the utilization of digital resources as a form of reinforcement. However, they are concerned about how to use digital resources creatively because they are having difficulty locating the correct digital resources to use and frequently encounter technical difficulties while attempting to use digital resources (i.e. computer or connectivity problems). Month after month, the use of digital resources grows, having both a positive and negative impact on the pre-school teachers’ flexibility. The more time they spend with digital materials, the more confident and skilled they are at integrating them into their teaching. However, the more they rely on digital resources, the more difficult it becomes to find appropriate digital reinforcement items. As pre-school teachers advance in their careers, they lose confidence in their ability to link digital resources

to the learning goals they set for their pupils, but they become less concerned about how employing digital resources would influence their relationships with their pupils. The offered tactics are often used by pre-school teachers to reinforce digital resources in their courses. Sometimes, on the other hand, they ask their students for help in deciding which digital resources to use. The pre-school teachers frequently use programs to encourage the use of digital resources in their classes, and they also search the internet for new ideas on how to include digital resources into their education as a supplement. They have mentoring/tutoring meetings with their Instructional Coach on how to use digital tools on occasion. Teachers are recommended to decide whether to utilize high-tech or low-tech solutions based on the reliability of local power supplies, internet access, and teachers' and students' digital skills. This could take the shape of integrated digital learning platforms, video lessons, MOOCs, or radio and television broadcasting. If monitoring and facilitation are required, the Department of Education should hold brief training or orientation workshops for teachers and parents. If teachers are expected to give live streaming of lessons, they should be assisted by the ICT coordinators in preparing the basic settings, such as solutions for using internet data.

References

(Online Sources style)

Covid-19 : 10 recommendations to plan Distance Learning Solutions. (2020, April 28). Retrieved November 10, 2021, from <https://en.unesco.org/news/covid-19-10-recommendations-plan-distance-learning-solutions>

Dos Santos, V.A.; Dantas, V.R.; Gonçalves, A.B.V.; Holanda, B.M.W.; de Andrade Gaião e Barbosa, A. O uso das ferramentas digitais no ensino remoto acadêmico: Desafios e oportunidades na perspectiva docente. In Proceedings of the VII Congresso Nacional, de Educacao, Conedu, Edição Online. 15–17 October 2020. [Google Scholar]

(Ocde, The impact of COVID-19 on student equity and inclusion: Supporting vulnerable students during school closures and school re-openings 2020)

(Scavarda, Dias, Reis, Silveira, & Santos, A covid-19 pandemic sustainable educational innovation management proposal framework 2021)