

Digital Pedagogical Readiness of Physical Education Teachers: A Proactive Survey in Response to the New Normal

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Abstract: *This study's primary aim is to profile the digital pedagogical readiness of PE Teachers in Cluster VI of the Division of Pampanga. Consequently, the aim is to establish a model that will help teachers adequately address students' needs in response to the new normal. The study made use of a Likert-scale type questionnaire to measure the digital pedagogical readiness of the teachers. The instrument has been validated and found to score 0.867 in the Cronbach's alpha reliability test. Findings reveal that PE Teachers in Cluster VI described themselves to be ready in terms of digital pedagogy in response to the new normal. Moreover, all the perceived problems indicated that although the teachers are ready to host digital pedagogical content, many factors still hinder the PE Teachers' readiness in the approaching school year. The perceived problems were Personal Technical Competence (4.03), Institutional Support (3.19), Financial and Logistical Requirements (3.22), Connectivity (3.94), and Learners' Readiness and Capacity (4.16). Three proactive strategic measures were suggested to address the digital pedagogical readiness of PE Teachers, namely: (1) Addressing the Lack of Personal Technical Competence, (2) Increasing Institutional Support, and (3) Encouraging Learners in the Adaption of Online Learning. Ultimately, a proposed model was created using proactive strategic measures addressing teachers' digital pedagogical readiness. Implications include the unavoidable hindrances in hosting online content like lack of network coverage, connectivity, and inability to purchase online classes.*

Keywords: Digital Pedagogical Readiness, New Normal, Physical Education, Online Classes

INTRODUCTION

Current education involves teaching students about various disciplines, along with how to interact with other students. Along with specific discipline-specific knowledge, students are also expected to learn how to think critically. This notion has been challenged by the pandemic's emergence, which has crippled various activities' operations. Ultimately, the delivery of education became challenging to the lower echelons of society since digital pedagogy forced technology, which most do not have access to. On the other hand, physical activities that require face-to-face supervision are placed in a difficult situation.

On a positive note, technology is now omnipresent in every aspect of one's life. With the introduction of social networks, the internet helped discover several breakthroughs in establishing a worldwide connection. Fast forward, the current challenge that the world faces right now is the threat of the pandemic. It has crippled a lot of industries, particularly education. In the present time, there have been simple acts such as knowledge sharing in universities showed a positive influence when it came to accepting e-learning (Salloum et al., 2020). E-learning, just like everything, has its fair share of pros and cons. Naturally, an important question would be if e-learning's upsides are worth the downsides. Hubalovsky et al. (2019) showed that the adaptive feature of e-learning could be added in the traditional form of education. The results showed that educational objectives could be accomplished more effectively with individual students. Chou et al. (2019) presented that students' critical thinking could improve with different e-learning environments. Also, reports stated that learning through online means has their obstacles (Yusoff et al., 2020), considering the importance of teachers' and students' attitudes towards online learning. One of the greatest struggles is found in the logistical and organizational category. A significant factor in this category would be the lack of internet and computer efficacy.

The Philippines, being one of the countries in Asia, has certain cultural, geographical factors that could affect e-learning. It is essential to look at neighboring countries and how e-learning has affected them. Teo et al. (2020) looked at e-learning in South Korea, as it was observed in the study that its effectiveness increased because of an efficient e-learning infrastructure and constant standardization efforts. Looking at countries physically near could allow for a more accurate expectation of the effect of e-learning and its implementation.

The acceptance of a new method of learning could depend on different perspectives. It is essential to see this in light of teachers, parents, and even students. Knowledge about e-learning and its protocols can be dispersed through different mediums, some being more reliable than others. Salloum et al. (2020) exposed the significance of social media practices and its relationship with the acceptance of e-learning. It was concluded that such practices play a vital role in the students' e-learning acceptance. For instance, studies have shown that individual students were able to achieve deeper science learning. So et al. (2019) suggested that students

be allowed to be exposed to e-learning resources and allowing them to adjust their learning strategies. In doing so, this would help the pupils gain more efficient and self-regulated science learning. The COVID-19 pandemic is a massive challenge to education systems. As noted by Daniel (2020), reassuring students and parents are vital in institutional response. Moreover, in ramping up capacity to teach remotely, Daniel (2020) also noted that schools and colleges should use asynchronous learning, which works best in digital formats. As well as the regular classroom subjects, teaching should include different assignments and work that puts the current pandemic in a global and historical context. When constructing curricula, Daniel (2020) mentions that designing student assessment first helps teachers to focus. Daniel (2020) also proposes flexible ways to address the students' learning trajectories once the pandemic is over and list resources.

Furthermore, this event quickly led to the closure of universities and colleges around the world, hoping that public health officials' advice of social distancing could help to flatten the infection curve and reduce total fatalities from the disease (Murphy, 2020). Connectively, Finn et al. (2020) noted that homeworking is becoming the new normal internationally. As a result, various education conferences, workshops, and seminars have been canceled or postponed indefinitely, as Murphy (2020) reported. Consequently, the chances for knowledge acquisition has been reduced to a minimum.

The new normal's urgency presents a new challenge to educational administrators to sustain the delivery of education to every school. In the Philippines, where there are still growing COVID-19 infections, Tria (2020) presented some new normal situations in the school setting. However, many challenges to the new normal. Schools need to address these concerns and carefully evaluate plans and procedures. Indeed, collaboration is the most important at these difficult times. The author recommends that the opportunity and challenges presented should be grasped and taken a severe concern (Tria, 2020a).

However, the term "new normal" is not that new. In 2010, the current economic downturn had accelerated the challenges faced today by U. S. colleges and universities (Bruininks et al., 2010).

The Philippines Higher Education Institutions (HEIs) are also affected by the recent calamity. Without a doubt, Pestilence is not the last pandemic that will undermine school coherence, particularly given research on how environmental change will influence irresistible disease events. There is a scope of potential ways that higher education institutions could become more grounded considering the COVID-19 emergency. The Higher Education Institution in the Philippines is getting ready for the COVID-19 guarantee that schools can oversee future vulnerability, remembering varieties for an ailment, method of transmission, and paces of contamination in the network. HEIs readiness expects to ensure students and teachers, plan for progression of instruction, and protect training part speculations, all of which at last add to reinforced versatility through instruction. HEIs have assumed a real job in avoiding and controlling the scourge circumstance (Pelmin, 2020).

Evacuating students to distance education can minimize the impact of the pandemic on the teacher training system. On the same token, Terenko and Ogienko (2020) shared the experience of the sophisticated learning management systems (LMS) and various web servers for teachers in the course of online teaching of pedagogical disciplines to future teachers. Features of their application were identified, and the didactic effect was determined. Results report their ability to provide interactive learning. It has been found that an essential educational and information support for teachers and students should be provided. Most of the students positively accepted it, and the teachers noted an increase in students' motivation for learning and their cognitive activity. The study results indicate the appropriateness of using the selected platforms and tools to study pedagogical subjects online (Terenko & Ogienko, 2020). Contrastingly, the decision to educate students while unrestrained is a false choice; when the exact path to achieve our chief objective safely, our students' education can be done online. Sood (2020) emphasized that the overriding principle should guide the institutions' decision-making that people matter more than money. Particularly, Sood (2020) argues the socially responsible decision is to deliver compassionate, healthy, and first-rate online pedagogy.

On the other hand, educational institutions and governing practices are increasingly becoming associated with new features. Williamson (2016) surveyed and mapped the digital policy instrumentation landscape in education and provided case studies. These instruments are evidence of how digital database instruments and infrastructures are now at the center of managing education, both nationally and globally (Williamson, 2016). The governing of education is being distributed and displaced to new digitized 'centers of calculation.' As part of a technical style of governing, these advancements pre-figure digital education governance techniques.

Equally important, the trends in digital pedagogy use are on-going and will influence learning technologies going forward. Online, face-to-face learning became one of the genuine components of digital education. The frontier between the digital and the physical has faded out (Dillenbourg, 2016). A study attempted to define and explore 'radical digital citizenship' and its implications for digital education. Emejulu and McGregor (2019) argue that digital technologies are constituted by on-going materialist struggles for equality and justice, erased in digital education's dominant literature and debates. The study asserts the need for a politically informed understanding of digital, technology, and citizenship and a 'radical digital citizenship' in which critical social relations with technology are made visible, and emancipatory technological practices for social justice are developed.

The only problem that comes with the proposed pedagogy today is the digital divide. Simply put, it is the phenomenon where the technology-users and non-technology users make a gap. According to Friemel (2016), internet diffusion is reaching a level between 80% and 90% in Western societies. Nevertheless, while the digital divide is closing for young cohorts, it is still an issue when comparing various generations. Logistic regression shows that gender differences in technology usage disappear if controlled for education, income, professional interest, pre-retirement computer use, and marital status (Friemel, 2016).

Meanwhile, the social context appears to have a diverse influence on Internet use. Also, family and friends' encouragement are strong predictors for Internet use, and private learning settings are preferred over professional courses. This notion is detrimental to the implementation of online classes in the Philippines. The country lacks the budget to provide all public-school students with working laptops or other related devices, but the sudden adoption of online classes raises middle-class families' expenses. As Scheerder et al. (2017) implied, digital divide research is primarily limited to sociodemographic and socioeconomic determinants. Private schools in the Philippines are also handed off the DO s. 013 2020 or the Readiness Assessment Checklist for Learning Delivery Modalities in the Learning Continuity Plan of Private Schools, which notes that in choosing the specific learning delivery modalities to use, the schools shall focus on the availability of learning resources, the health and well-being of learners and DepEd personnel, national and local directives given, and the choice of parents and learners. There are also several non-negotiable minimum requirements for modular distance learning or blended learning to be accomplished.

Subjects like Physical Education (PE) encounter problems in the implementation of classes since most of the time, physical movements are needed in class and are supervised by a PE instructor or teacher. Unfortunately, there are only limited ways in the country on how to implement such digital pedagogy. One study explored the potential of computer and video games for health and physical education (Papastergiou, 2009). However, equipment is needed for this to become possible. The challenge now is to create a digital pedagogical model that PE Teachers could use to facilitate the lessons online. The lived experiences of teachers in Williams (2013) research showed that online PE teachers had similar pathways to the online setting. They provided individualized instruction to their students, offered students choices in the online PE classes.

According to researchers, there is a growing use of immersive virtual environments for educational purposes, but whether descriptive rather than analytical is not yet publicly known. Good et al. (2008) presented a case study where university students were tasked with building an interactive learning experience using a platform. Several steps were mentioned, which reported that using a virtual environment changed the nature of the instructor-student relationship. This change allowed students to explore "problematic problems" in a motivating and relevant manner, providing students with greater ownership and problem flexibility, but at the same time allowed for ease of assessment.

Walsh (2010) discusses that literacy pedagogy changes are gradually occurring in classrooms in response to contemporary communication and learning contexts. Furthermore, these changes are diverse as teachers, and educational researchers attempt to design new pedagogy to respond to digital technologies' potential within existing curriculum and assessment policies. Walsh (2010) derived evidence from recent classroom research, where 16 teachers. Data from the nine case studies provide evidence that teachers can combine print-based literacy with digital communications technology across various curriculum areas. Findings Walsh's (2010) study confirms that literacy needs to be redefined within current curriculum contexts, particularly considering a national curriculum's emergence. New descriptors of language and literacy criteria are proposed within the framework of multimodal literacy, the literacy needed in contemporary times for reading, viewing, responding to, and producing multimodal and digital texts.

On some other token, entering a digital world of learning would involve the adjustments of many related practices. These could be from the perspective of a parent, student, or teacher. Of all the adjustments that would be needed, digital pedagogical content is one factor to take note of. Many studies have discussed its importance and effect on a student and how it can help the students. Cahapay (2020) talked about rethinking education amidst the COVID-19 pandemic. In the study, a recurring topic of content is discussed, as the researcher suggested content be monitored and adjusted based on three considerations. Significance, relevance, and utility and that a proper combination of this could lead to effective e-learning content. Different teaching approaches were also discussed, along with all the examples showing that content can be adjusted with proper planning.

A critical difference between conventional learning and online learning is the distribution of topics, lessons, and other related practices (Herodotou et al., 2019). Predictive learning analytics is an improvement in how people can support students. Such analytics specifically improve online pedagogy; it was recorded these students significantly performer better than their peers. The study suggests that predictive learning analytics be provided to teachers and help empower online teachers n successfully monitoring and interacting with their students. Interaction is a necessary component of inefficient learning (Blaine, 2019).

Moreover, the interaction between a teacher and the students could lead to a learning system's success or failure. These interactions must be given focus in terms of the delivery of online learning. This event concluded that blended coursework and learning could be successful if the interactions are accounted for (Cahapay, 2020). Indeed, blended learning still requires an amount of traditional modality, suggesting that certain practices from conventional classrooms should be translated into digital pedagogy. Despite the possible benefits of digital pedagogy, there were still persistent problems encountered, like teachers' personal technical competence. First, the implementation of e-learning would require the participants to use various technological instruments (Ruijten & Hooijman, 2019). The author noted that blended learning has its strengths and weaknesses. It is also mentioned that a difference in scores might be due to the participants' self-efficacy. They were discussing the importance of technical competence and the improvements needed. Overall, the researchers concluded that blended learning could lead to the positive student experience and learning.

Second, without institutional support, digital pedagogy would cease to exist. It is common knowledge that institutions play a vital role in the implementation of e-learning and should be investigated in pedagogical readiness. Institutions can support the student in various ways, whether through logistics, knowledge or providing an environment for students to share their experiences

(Salloum et al., 2019) concluded in a study that common knowledge sharing and quality in the university has a positive influence on the pupil's acceptance of e-learning methods. However, the study also found that certain aspects, such as innovativeness and trust, did not significantly affect the student's acceptance of e-learning (Al-Rahmi et al., 2019). The study conveyed that visibility in a factor that helps in starting peer discussions and new ideas.

Further, the factor of visibility means that the outcome is noticeable by other people, whether it be other students, teachers, or maybe even parents. With visibility being a factor, it could be an essential topic that institutions could note (Teo et al., 2020). Additionally, E-learning's effectiveness was greatly improved by having an efficient infrastructure and continuous improvements in standardization. These are specific steps that institutions could take, which could affect e-learning after its implementation. In the transition to e-learning, teachers need to adjust their teaching methods and deal with their students. Herodotou et al. (2019) further studied predictive learning analytics and its ability to empower online teachers. It was concluded that teachers who were associated with predictive learning analytics had significantly better learning outcomes. Herodotou's study also observed that predictive learning analytics could empower teachers and help in their teaching practices. These analytics helps identify and proactive measures in dealing with students who may fail in their prospective studies.

Third, digital pedagogy requires financial and logistical requirements. Proper planning and preparation have been shown to lead to positive results. So et al. (2019) had different phases for the pupils to undergo, with each phase having its contributions, the study ended with a positive outcome. The experiment involved a combination of forethought, reflection, and self-assessment phase. It was observed that having a concrete plan helped the students in their enthusiasm, critical thinking, self-discipline, and overall learning. The study has suggested allowing students more opportunities with e-learning, given the proper logistics (Yusoff et al., 2020). In terms of sustainable medical teaching and learning, Malaysia has been making efforts to improve pandemic's online learning system. The study discovered that the most considerable resistance that Malaysia has found was in logistical and organizational problems, which lead to e-learning not being fully utilized.

Fourth, connectivity is an essential tool for facilitating online pedagogy. A lack of access to the internet has been a great challenge in Malaysia's transition to learning online. Connectivity is one of the main variables that come to mind when online learning is discussed (Yusoff et al., 2020). Meanwhile, Lemana (2020) discussed the Philippine situation in its "digital divide," expressing that there is a difference between classes in terms of access to the internet and how this can be a hindrance to active online learning—stating that the government should be proactive in its approach and investing in ICT education and infrastructure. The researcher mentioned that the Philippine students and teachers lack both computers and good internet connection along with specific criticisms.

Learners are a significant variable to examine, considering how they will be receiving e-learning. Students' readiness and capacity have always been factors in any learning method, be it traditional or unconventional. Hubalovsky et al. (2019) conducted a study on the influence of adaptive e-learning on primary school pupils. The study discovered that specific objectives of learning were achieved more effectively with the use of e-learning. Some students greatly improved with the addition of e-learning, while others did not. The author has suggested that implementing adaptive elements into e-learning helps specific individuals, which is worth researching. There is a tendency that when end-users see the learning system as complicated and hard to understand, they tend to get a low intention in using this kind of system (Al-Rahmi et al., 2019). This finding shows the importance of a student's capacity to see the system and not get overwhelmed. The study also mentioned that complexity had a negative relationship with the perceived usefulness of a system.

Through these presented pieces of literature, the researcher was encouraged to assess the digital pedagogical readiness of Physical Education teachers and their perceived problems that they will encounter in implementing the digital pedagogy. The development of a digital pedagogical model for PE Teachers could add to the body of knowledge in best practices in teaching PE in an online setting.

METHODOLOGY

Research Design

A quantitative design using a descriptive method of analysis was utilized in this study. The study focused on assessing the digital pedagogical awareness of PE teachers and assessing the perceived problems encountered by the PE teachers. The strength of quantitative studies lies in providing data that can be expressed in numbers—thus, their name (Madrigal & McClain, 2012). Because the data is quantitative, this study applied statistical tests to make statements about the recorded data. These included various descriptive statistics like the mean, median, and standard deviation, but can also include inferential statistics. Statistical analysis lets researchers derive essential facts from research data, including preference trends, differences between groups, and demographics (Madrigal & McClain, 2012).

Descriptive research is a type of research design where the researcher creates a profile of the respondents using frequency distributions, tables, and figures before interpreting it in words. Most of the time, descriptive research only focuses on descriptive statistics, spanning the measures of central tendency to variability and normality (Creswell, 2007).

The focus of the research is well-integrated with the current research design for the reason for profiling purposes. In research, when one wants to know the surface knowledge of anything, people tend to describe first before knowing further details. Through describing the scenario, one can get a good grasp of the variables. Ultimately, this research design helped the researcher measure PE teachers' digital pedagogical readiness using a descriptive approach. Since the study only has indicators, the research's power is only up to profiling its competencies. That alone helps describe the current situation of public education amidst the new normal.

Respondents of the Study

The study covered the public schools offering senior high school programs in Cluster VI of the Division of Pampanga, where 52 teachers participated in the study. The schools in this cluster are listed in Table 1.

The sampling method used in determining the respondents is a universal sampling. This sampling means that all PE teachers under Cluster VI became a participant in the study. Table 1 presents a summary of the public senior high schools and their total PE teachers.

Research Instruments

The researchers used a self-made questionnaire that has undergone validity and reliability testing. The 37-item questionnaire composes of two (2) parts. The first part lists statements about designing digital pedagogical content (items 1 to 6) and digital pedagogical distribution and delivery (items 7 to 12). Consequently, the second part lists statements about PE teachers' perceived problems in delivering the digital pedagogical process. It divided further into six (6) sub-parts, namely: personal technical competence (items 13 to 17), motivational support (items 18 to 22), financial and logistical requirements (items 23 to 27), connectivity (items 28 to 32), and lastly, learners readiness and capacity (items 33 to 37).

The questionnaire's content validity was established by subjecting the first 37 items to the evaluation of experts. The three (3) validators included one (1) professor from the university and two (2) officials from the Department of Education. After that, the steps required for reliability testing was done. Using Cronbach's alpha analysis, the researcher gleaned a coefficient of 0.876, indicating a high-reliability index.

Furthermore, 37 questions were subjected to the test to see if there was internal consistency in the answers. As seen from the results, all the questions passed the analysis. The acceptable margin is around 0.7 to 0.9. These coefficients indicate that the internal consistency and the reliability of the questionnaire are high.

Data Gathering Procedure

Due to the urgent need of public schools, this study was prioritized by and was given full support by the Schools Division Superintendent of Pampanga. The researchers primarily requested permission through a series of letters. The researchers also sought permission from the graduate school dean to conduct research. After acquiring the official approval, the researcher prepared and presented the plan of activities for the actual data-gathering phase and the School Heads of the participating schools as part of the conformance with ethical standards.

Consequently, the researchers followed the questionnaire validation and reliability testing steps before putting it into an online form for distribution. After securing the preliminary approvals, the researchers have gone to the university to approve the questionnaire from one of the experts in the Physical Education matter before going to the other validators' offices within the Division of Pampanga. Revisions were given, and the corrected version of the questionnaire was then re-made in the Google Forms platform.

Next, the researchers have notified the Schools Division Superintendent of Pampanga about the questionnaire, and all the PE teachers, through the principals in the Cluster VI, were given notifications to answer the questionnaire immediately as strict compliance. The researchers sought the online method for a fail-safe method of gathering data – a convenient way of researching the pandemic. The data gathering process was finished overnight through the help of the Cluster VI chairman, and with the power of Google Forms.

Consequently, the researchers immediately delivered the data to the statistician, which was finished within the following days. Together, the researchers and the statistician brainstormed a model that would fit the results and the theoretical framework.

Statistical Treatment

The following steps were followed for the data analysis and statistical treatment of the data. After collating the data into a spreadsheet file, it was transferred to the Statistical Packages for Social Sciences (SPSS) to process the weighted mean and standard deviation. Then, the weighted mean was employed to describe the level of digital pedagogical of the PE Teachers and the perceived problems encountered by the PE teachers in terms of delivering online classes.

The data collected were tabulated and processed using Statistical Packages for Social Sciences (SPSS). Frequency and percentage distribution were used on the profile of the respondents. The Likert scale is used because this is a non-comparative scaling technique and understandable.

RESULTS AND DISCUSSIONS

The Assessment of the PE Teachers' Level of Digital Pedagogical Readiness

The researchers' preliminary step in measuring the teachers' digital pedagogical readiness is to get data from them through a survey questionnaire. The first component of the questionnaire contains statements about the teachers' mastery in handling and creating online content, productivity tools, lesson curation, and other pre-requisites in an online classroom.

Digital Pedagogical Content

The table shows the results in the section mentioned above. Overall, teachers described themselves as "Ready" in terms of hosting digital pedagogical content, evidenced by the mean of 5.04.

Table 1

Digital Pedagogical Content Competence of PE Teachers in Cluster VI

Indicators	Mean	Verbal Description
1. In terms of creating online content, I have a basic mastery of productivity tools (e.g., Microsoft Word, Excel, etc.)	5.06	Ready
2. In terms of online content management, I have familiarity with basic web tools (e.g., Google Drive, WeTransfer, iCloud, etc.)	4.63	Approaching Readiness
3. I have experience in curating lesson materials.	4.87	Ready
4. I have tried downloading free DepEd teaching guides and use them to aid my lesson content.	5.35	Ready
5. I often browse the internet for additional content for my lessons.	5.29	Ready
6. The use of multimedia is prevalent in my presentations.	5.04	Ready
General Weighted Mean	5.04	Ready

In terms of creating online content, teachers have a necessary mastery of productivity tools (e.g., Microsoft Word, Excel) (5.06) and online content management; they also have familiarity with necessary web tools (e.g., Google Drive, WeTransfer, iCloud) (4.63) and have experience in curating lesson materials (4.87). Teachers have also tried downloading free DepEd teaching guides and use them to aid their lesson content (5.35) and often browse the internet for additional content for their lessons (5.29). Lastly, the use of multimedia is prevalent in their presentations (5.04).

A closer look at the items makes one glean that of all the items that registered a competent rating, only one (1) item registered at an approaching competence level (4.63). This finding indicates that most PE teachers in the public sector are not used to the online platforms commonly used in hosting digital pedagogical content. The teachers also reveal that they have downloaded specific teaching guides provided by the Department of Education (5.35).

As Zhakipbekova (2018) mentioned, there is determined a role of pedagogical conditions at the realization of a model for forming the readiness that will allow carrying out the training process effectively of future primary school instructors for joint training of children with special educational needs (Zhakipbekova, 2018). In the context of the study, the teachers seem ready for the demands of the new normal. Digital pedagogical readiness is also important because it allows enablers and essential workers to take appropriate policy measures and implement development plans to help create informed respondents in e-learning endeavors (Mafenya, 2013). The following sections shall further verify the legitimacy of their digital pedagogical readiness.

Digital Pedagogical Distribution and Delivery

The second component of the digital pedagogical readiness is about the teachers' distribution and delivery in the online medium. The items center mostly on online discussions, the capability to host online meetings with students, computer controls, and more. Overall, this criterion gleaned a 4.30, indicating an approaching readiness among PE teachers.

Table 2

Digital Pedagogical Distribution and Delivery of PE Teachers in Cluster VI

Indicators	Mean	Verbal Description
1. I summarize my lessons during online discussions.	4.63	Approaching Readiness
2. I can share my screen to students during lesson presentations.	4.60	Approaching Readiness
3. In terms of online assessments, I have experience in the creation of automated quizzes.	4.25	Approaching Readiness
4. I find it hard to understand basic computer controls.	3.19	Approaching Readiness
5. I have thought of using pre-recorded videos for online classes.	4.63	Approaching Readiness
6. In terms of hosting online content, I have at least tried exploring platforms that utilize distance learning.	4.48	Approaching Readiness
General Weighted Mean	4.30	Approaching Readiness

Teachers find it challenging to summarize their lessons during online discussions (4.63). Also, teachers find it challenging to have the capability to share their screen to students during lesson presentations (4.60). In terms of online assessments, they find it challenging to have experience creating automated quizzes (4.25) and having a hard time understanding basic computer controls (3.19). Subsequently, they also find it hard to have thought of using pre-recorded videos for online classes (4.63). Meanwhile, in terms of hosting online content, teachers find it challenging to have tried exploring platforms that utilize distance learning (4.48).

Looking at the items individually, the teachers may have some slight problems regarding the distribution and delivery of content. This notion is possible, for the teachers indicate that they are having a hard time understanding basic computer controls (3.19), which is, in fact, a significant factor in delivering online content.

The teachers' digital pedagogical readiness collectively shows that they are somehow prepared for the online classes' demand during the pandemic. However, the problem is yet to become clarified. The next sections talk about the perceived problems in delivering the digital pedagogical process.

Compared to the study conducted in Cagayan State University, there was a balance of perception on online learning, instructional delivery, and its benefits. The respondents in Javier's (2020) study were found to be competent, along with 21st-century competencies towards online learning; however, they were not ready to utilize online education. The organization readiness has been assessed with evident initiatives underway, including how respondents perceive the various factors of e-learning reception in general.

On the other hand, Tria (2020) explained that the new normal should be considered in planning and implementing new educational policies. With that, the proper delivery of the pedagogy is expected.

Perceived Problems in Delivering the Digital Pedagogical Process

The unimpeded paralysis of the education sector made teachers resort in delivering lessons in a less-familiar and less-explored medium. Since the feat was unexpected, several problems were expected to arise following the opening of the classes. Some of the commonly known problems are listed in this section.

To further understand the side of the PE teachers, the researcher used the questionnaire to extract some thoughts from the teachers to be able to create a proper descriptive analysis. The researcher was able to construct a detailed descriptive explanation of the criterion using weighted mean and standard deviation.

Contrary to the previous section's rating method, the more the respondents agree on the items given in this criterion, the more magnified the problem is stated.

Personal Technical Competence

This criterion talks about the difficulty of a teacher in adjusting to online classes. For instance, if teachers find themselves having a hard time using online platforms or witness their lack of experience in online pedagogical approaches, they may develop a competency or approaching competency. Such lower results indicate a low level of readiness.

Table 3

Perceived Problems in Personal Technical Competence

Indicators	Mean	Verbal Description
1. As a teacher, I will find it difficult to adjust to online classes.	3.87	Prevalent
2. The use of online meeting platforms is very challenging.	4.54	Prevalent
3. I have little to no experience in automating quizzes online.	3.81	Prevalent
4. Designing an online course is a hard task to complete.	4.23	Prevalent
5. I am not very used in finding a suitable online learning platform for students.	3.73	Prevalent
General Weighted Mean	4.03	Prevalent

As seen in this table, 4.03 is the weighted mean of the distribution, which also meant an approaching readiness among teachers. Individually, teachers find it difficult to adjust to online classes (3.87) because online meeting platforms are challenging (4.54). Also, teachers have little to no experience in automating quizzes online (3.81). Designing an online course is also a challenging task to complete for the teachers (4.23), as they are not very used in finding a suitable online learning platform for students (3.73).

This finding means that the teachers lack essential skills in coping with the demands of the new typical setup in teaching. Given this assessment, this prevalent problem may not cease if there will be no immediate action or intervention addressing personal technical competence.

For instance, there was a study about the pedagogical conditions of ensuring students' readiness for scientific research based on Penza State Technological University students' scientific literature and experience. The introduction of suggested conditions favors the process of training of highly skilled expert who is ready for a generation of new ideas in fields of science and engineering, their implementation in scientific and innovative projects; for conduction of scientific researches and testing of their results (Slessarev et al., 2015). Correlatively, studies claim that teacher educators need to identify the pedagogical surplus value in their teaching and learning context with digital tools to increase motivation for concrete, useful, and subject-oriented successful examples presented by experienced teachers (Amhag et al., 2019).

It only shows that the table results mean that the PE teachers still need to have some re-introduction to the tools used in digital pedagogy so that they could obtain the skills needed to refine their way of teaching to cater to students in the new normal set up correctly.

Institutional Support

This component talks about the support of the public institution in catering to online classes, including but not limited to providing access to a learning management system, releasing budget for internet fees of the teachers, and formulation of policies. The table below lists the different perceived problems for this criterion.

Table 4

Perceived Problems in terms of Institutional Support

Indicators	Mean	Verbal Description
1. My institution did not provide an additional allowance for expenses related to online classes.	3.79	Prevalent
2. The school does not fully support its stakeholders in the implementation of online classes.	2.38	Prevalent
3. Teachers are not given training in handling students remotely.	2.67	Prevalent
4. Policies for online classes are still in development.	4.33	Prevalent

5. The school does not distribute primers to orient students to the new scheme of learning.	2.77	Prevalent
General Weighted Mean	3.19	Prevalent

Overall, the teachers showed an approaching readiness in this criterion, evidenced by the weighted mean of 3.19. Individually, some teachers noted that their institution did not provide an additional allowance for expenses related to online classes (3.79). Some schools do not fully support their stakeholders in the implementation of online classes (2.38). Additionally, teachers are not given training in handling students remotely (2.67), and online classes' policies are still in development (4.33). Lastly, the school does not distribute primers to orient students to the new learning (2.77).

Like the block prevalence of technical competence problems, institutional support remains one of the rocks that hinder the success of hosting online classes. As Pelmin (2020) said, the Higher Education Institution in the Philippines is getting ready for COVID-19 guarantee that schools can oversee future vulnerability, remembering varieties for the seriousness of ailment, method of transmission, and paces of contamination in the network. However, the real setting for PE teachers speaks otherwise. There has been little institutional support because the current budget of the education sector still lacks funding. Also, being a Cluster VI teacher, the researcher is aware that not all institutions or public schools can support the upgrading of connection bandwidth coverage since the budget is only limited. Much worse, the teachers spend their expense printing the modules they created and delivered to the students' homes.

Financial and Logistical Requirements

This component talks about the school's support in terms of budgeting and allocating resources for online classes. A weighted mean of 3.22 was recorded in this criterion, indicating that most of the Cluster VI schools are still on the stage of approaching readiness in terms of equipment and budget for the upcoming online classes.

Table 5

Perceived Problems in terms of Financial and Logistical Requirements

Indicators	Mean	Verbal Description
1. The school was not able to provide teachers individual internet connections.	4.25	Prevalent
2. Teachers are required to go in-site instead of a Work-From-Home (WFH) scheme.	2.38	Prevalent
3. There are no available peripherals or pieces of equipment for both students and teachers.	3.29	Prevalent
4. The institution is not able to provide online class-related allowances for teachers.	3.54	Prevalent
5. There is no adoption of a learning management system (LMS) in the school.	2.63	Prevalent
General Weighted Mean	3.22	Prevalent

As mentioned in the table above, schools could not provide teachers individual internet connections (4.25). Also, teachers must go in-site instead of a Work-From-Home (WFH) scheme (2.38). Additionally, there are no available peripherals or equipment for both students and teachers (3.29). Moreover, institutions were not able to provide online class-related allowances for teachers (3.54) because there is no adoption of a learning management system (LMS) in the school (2.63).

Jamaludin et al. (2020) have exposed the importance of knowing and capturing an educational ecosystem's interrelated components in higher education (HE) within the ASEAN region. Jamaludin et al. (2020) said that respondents' personal readiness towards Education 4.0 is very high, yet many concerns were raised about institutions' financial and managerial readiness across the region.

Connectivity

This component primarily concerns about several technical aspects of conducting online classes. It also includes the GSM network, which is responsible for the delivery of texts and calls. Overall, a mean of 3.94 indicated an approaching readiness in this criterion.

Table 6

Perceived Problems in terms of Connectivity

Indicators	Mean	Verbal Description
1. Lag in audio or video calls are always persistent.	4.29	Prevalent
2. I often experience internet disconnection.	4.46	Prevalent
3. The use of SMS to inform parents and students is not fully implemented.	3.19	Prevalent
4. I have difficulty contacting parents and students on social media.	4.25	Prevalent
5. Online posters for announcements load very slowly.	3.52	Prevalent
General Weighted Mean	3.94	Prevalent

Given the circumstances that the public sector has now, most teachers rely on social media and other platforms to host digital pedagogical content. As such, lag in audio or video calls are always persistent (4.29) due to slow internet connection. Teachers also often experience internet disconnection (4.46). Also, the use of SMS to inform parents and students is not fully implemented (3.19). Teachers also reported having difficulty contacting parents and students in social media (4.25). On the other hand, online posters for announcements load very slowly (3.52).

To elaborate more on the teachers' realities with their issues in internet connectivity, remote to developing areas are known for the notion of inadequate internet access despite the efforts of telecommunication companies to build infrastructures to address this (Alvarez, 2020). Although these areas can be reached by internet coverage, their reliability and quality prevent teachers from carrying out duties that require connectivity, which is evident in Table 9.

Learners' Readiness and Capacity

The last component focuses on the challenges faced by the students during their sudden adaption to online learning. Students were described based on their performance in the online setting so far from the teachers' perspective.

Table 7

Perceived Problems in terms of Learners' Readiness and Capacity

Indicators	Mean	Verbal Description
1. Students lack competence in using online platforms.	4.31	Prevalent
2. There is a lack of orientation among students in terms of using online platforms.	4.17	Prevalent
3. Most students are resistant to the idea of online classes.	4.10	Prevalent
4. Students have little to no available means of participating in online classes.	4.19	Prevalent
5. Students find it tedious to pass requirements online.	4.04	Prevalent
General Weighted Mean	4.16	Prevalent

Teachers report that students lack competence in using online platforms (4.31). Partly, the institutions are to blame because there is a lack of orientation among students using online platforms (4.17). Most students are resistant to online classes (4.10) because they are used in conducting face-to-face classes. Also, students have little to no available means of participating in online classes (4.19), and they find it tedious to pass requirements online (4.04). Overall, learners are on the margin of approaching readiness (4.16).

Since the indicators specified in Table 10 require internet connectivity to participate in preparatory activities for online education, a digital divide is evident. For students with favorable conditions such as a reliable paid subscription for internet access and available technological devices, this may not pose a problem. However, this leaves students from financially constrained families lagging in preparing themselves for online classes. Sentiment analysis in the Philippine setting (Pastor, 2020) showed that students primarily rely on non-paid internet subscriptions (commonly called 'Free Data') to engage in online activities. This context is only limited to messaging applications. It does not apply to online learning platforms, which would be primarily used for online classes.

Although this could be addressed by television broadcasts and modular resources (Tria, 2020), this divide still poses challenges for PE teachers in constant monitoring and assessment of delivered learning outputs.

Recommended Proactive Strategic Measures Addressing the PE Teachers' Digital Pedagogical Readiness

Besides other school subjects, physical education (PE) is emerging in integrating information and communication technology (ICT) into regular classes. Such innovative teaching practices that implement ICT in PE involve various parties affected by these teaching processes. Students, principals, districts, parents, administrators, policymakers, and PE teachers themselves are involved. Hence, each participating party has perceptions and attitudes towards ICT and PE (Kretschmann, 2015).

This idea manifested in the survey results, which showed that although PE teachers are ready to host digital pedagogical content, several factors hinder the process. In order to address the shortcomings, the researcher recommends the following measures:

Enhancement of Teachers' Personal Technical Competence. This problem can be addressed through institutions host free web-based seminars (webinars) held on common platforms like Facebook Live and Zoom Meetings that cover different theoretical foundations and practical applications of learning management systems (LMS). The teachers must also self-learn about different essential skills, like designing, lay-outing, and editing videos to be well-equipped with practical knowledge.

In one research, it was mentioned that the increased accessibility of flexible learning has called into question the effectiveness of traditional collegiate aching and learning models (Crawford & Jenkins, 2017).

Increasing Institutional Support. Teachers cannot produce each one they show inside an average classroom compared to the online setting. Knowing that not all teachers are technology-driven, the institution can help buy software or subscriptions to help teachers. Concurrent with the seminars, the institution gives support to the teachers will result in a flourishing classroom. Learning management systems (LMS) have been proven to encourage a constructive approach to knowledge-getting and, finally, support active learning (Emelyanova & Voronina, 2014).

Encouraging Learners in the Adaption of Online Learning. In modern times, discussions about educational policy and practice are often embedded in a mindset that considers learners born in an omnipresent digital media age to be fundamentally different from previous generations of students. These students have been labeled digital natives and have been ascribed to process multiple sources of information simultaneously cognitively. Ultimately, they are seen by the public to require an educational approach that is radically different from that of previous generations (Kirschner & De Bruyckere, 2017).

However, this is not always the case. Exposure to technology has made the students lenient in their studies. In one case, it has been observed that data-based translation programs are often used both in and outside the class unconsciously, and thus there occur many problems in foreign language learning and teaching (Darancik, 2016).

The solution is to encourage the students on the correct usage of the available platforms at hand. This notion is the first step towards developing future policies that will benefit the students, teachers, and institutions.

Proposed Digital Pedagogical Model for PE Teachers

To further illustrate the proposed paradigm for teachers, the researcher created a model that would guide them in adapting to the demands of the new normal and cater to the learners' needs correctly.

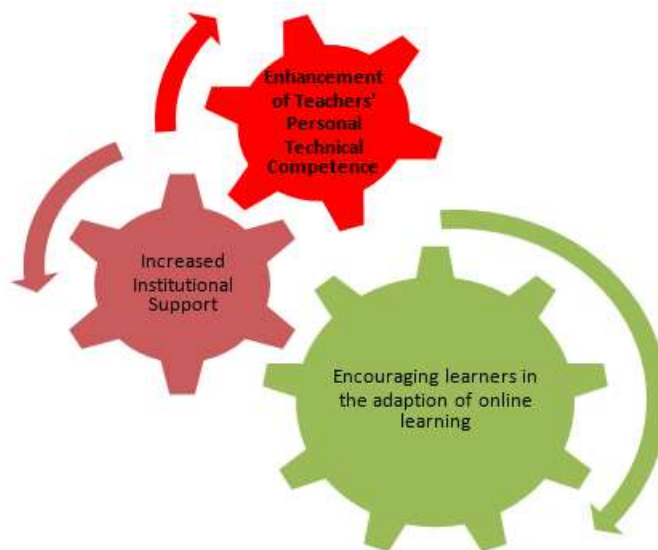


Figure 1. Proposed digital pedagogical model for PE teachers

As mentioned in the previous section, the proactive strategies shall be implemented either sequentially or concurrently. In this way, the teachers could become equipped with the essential knowledge to manage their online classrooms. However, several factors could be hindered, but since most of the significant problems shall be addressed in this digital pedagogical model, they pose little problems on the implementation of innovative learning online.

To make this work, institutions must invest in online platforms and provide connectivity and financial support to teachers. Optimally, the additional support from the institution could help teachers create better content for their students.

The most significant gear of the three is the encouragement of learners. Since most cannot afford to buy equipment, the school can raise profit by letting their teachers create monetizable content online. In that way, not only they are going to help the students that are under their institution, but contributing source material to the world-web could do the following: (1) encourage learners because of the free online discussions available to all, (2) help teachers monetize content in order to raise funds for the less fortunate, and (3) indirectly contribute to the learning of other students outside the institution through the publicly available lessons. The proposed action plan contains an explanation of the model in detail.

Proposed Action Plan

Since the perceived problems have already been magnified in the results, the following section contains the action plan for the institution to address the teachers' need to become digitally and pedagogically ready for the upcoming opening of the classes with the challenge of the new normal.

This plan is loosely based on the proposed digital pedagogical model provided for the PE Teachers.

Proposed Action Plan

Objective	Steps Needed	Timeline
First Gear: Enhancing Teachers' Personal Technical Competence	<ol style="list-style-type: none"> 1. Setup webinars that would help the PE teachers learn more about digital pedagogy 2. Discuss different modes of delivery that are tailor-fitted to the schools' topology 3. Host online training on specific software to use in online classes 4. Require equipment for hosting online classes (co-requisite for second gear: Increasing Institutional Support) 5. Plan a calendar of activities in the allotted school days for the school year 	1-2 months
Second Gear: Increasing Institutional Support	<ol style="list-style-type: none"> 1. Prepare necessary papers for solicitation, possible partnerships with private sectors and companies 2. Create a page for the school that will help establish the online presence of the institution 3. After securing funds, provide the following for teachers: <ol style="list-style-type: none"> a. Mobile/pocket Wi-Fi connection (recommended) b. Data subscription allowance c. Application subscriptions (Canva for Education, Microsoft Office 365, Microsoft Teams/Zoom, etc.) d. Workstations (PCs) 	

Proposed Action Plan (*continued*)

Third Gear: Encouraging Learners in the Adaption of Online Learning	<ol style="list-style-type: none"> 1. Mobilize a social media team and a technical team that will handle the questions, complaints, and feedback of the stakeholders 2. Set-up crash courses in the selected online platform for students, containing different non-academic subjects 3. Extend social media presence by posting testimonies about the benefits of online learning 4. Distribute paraphernalia containing the steps in adapting online learning 	2 months
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Noting the results of the proactive survey, the PE teachers are not yet ready to implement digital pedagogy. However, this may change after the implementation of the proposed digital pedagogical model, while following the mandates of the Department of Education (DepEd).

Discussions, Conclusion, Future Research

From the results of the study, conclusions drawn were as follows: (1) The PE teachers clearly show that they have digital pedagogical readiness amidst the challenges brought by the new normal; (2) Unavoidable hindrances in doing the digital pedagogical process are the lack of network coverage, connectivity, and inability to purchase equipment for online classes; (3) There are ways to address the problems brought by the new normal through the formulation of proactive strategies that will help the teachers implement the digital pedagogical process, and (4) Teachers in Cluster VI encounter similar problems regardless of the school, as generalized from the results of the descriptive analysis that is why a digital pedagogical model is created to guide the teachers in facilitating learning in the new normal setup.

Consequently, the following recommendations are presented: (1) Trainings should be done through institutions by hosting free web-based seminars (webinars) on common platforms like Facebook Live and Zoom Meetings that cover different theoretical foundations and practical applications of learning management systems (LMS). The teachers must also self-learn about different essential skills, like designing, lay-outing, and editing videos to be well-equipped with practical knowledge; (2) Knowing that not all teachers are technology-driven, the institution can help buy software or subscriptions to help teachers. Concurrent with the seminars, the institution gives support to the teachers will result in a flourishing classroom; (3) Encourage the students on the correct usage of the available platforms at hand. This notion is the first step towards developing future policies that will benefit the students, teachers, and institutions; (4) The proactive strategies shall be implemented either sequentially or concurrently. In this way, the teachers could become equipped with the essential knowledge to manage their online classrooms. However, several factors could be hindered, but since most of the significant problems shall be addressed in this digital pedagogical model, they pose little problems on the implementation of innovative learning online, and (5) This study can be useful for future researchers in conducting the same study to another agency and this can provide necessary data needed on the digital pedagogical readiness in the new normal.

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