



# Navigating Covid-19 Challenges – How Physical Education Teachers Skillfully Applied Their Expertise

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**Abstract:** Physical education (PE) is challenging to teach in a face-to-face setup due to its rigorous physical activities (PA). This challenge intensified with the onset of the COVID-19 pandemic, prompting a shift toward exclusively adopting distance learning education (DLE) or online education (OE). Since there is a lack of elaboration on the challenges encountered by PE teachers in teaching the subject in such a setup and understanding the solutions they have implemented for its successful delivery, this study reviews available studies to understand this case. Using a systematic literature review (SLR) bounded by inclusion-exclusion criteria, 39 Philippine studies were screened and considered for review. Despite PE teachers confronting a series of challenges and these hurdles demanding a paradigm shift in teaching strategies, particularly in maintaining physical engagement and connection in a virtual setting, these challenges spurred resilience and innovation. In particular, interprofessional collaboration for pedagogical resilience, adaptation of innovative pedagogies, improving technological proficiency, and dealing with remote environments are commendable actions that PE teachers demonstrated in times of DLE/OE. The study concludes that PE teachers demonstrated a commitment to collective success, similar to other subjects, by providing students with a diverse educational journey despite the nature of the subject.

**Keywords:** Distance learning education, Online education, Systematic literature review, Philippines

## 1. Introduction

The Philippines has always struggled with a shortage of resources, particularly in modifying educational methods to meet the demands of the digital era as skill expectations and needs shift (Pelila *et al.*, 2022). Nonetheless, it is admirable that the nation continues to assist academic institutions in providing alternatives such as online learning (OL) or distance learning education (DLE) (Baldwin & Ching, 2019; Toquero, 2020). This commitment persists despite concerns about policies, curriculum development, and funding for teaching and learning materials and technologies for effective technology integration (Pelila *et al.*, 2022).

In this context, teachers created strategies and concepts as they adjusted to using electronic resources in DLE, irrespective of the subjects they teach (Rebecca Abel, 2020). However, educators in various fields inevitably encounter challenges, and it has been noted that physical education (PE) is one of the subjects most negatively impacted.

Physical Education (PE) plays a vital role in promoting general health, well-being, and a love for physical exercise among all children, irrespective of their athletic abilities. It is not simply about games or just for athletes, but PE is crucial for improving school physical activities (PA) because the discipline involves highly disciplined instructions, routine, and rudimentary application of practical skills, and the main goal is physical fitness (Apriyanto & Adi, 2021), and is linked to reduced stress, anxiety, and depression (Hills *et al.*, 2015). Thus, in developing a curriculum, including the provision of appropriate materials and pedagogical approaches, especially in online teaching (OT), a tedious process is underway (Kim *et al.*, 2020). This involves checking all PE learning domains, authentic evaluation, and varied lessons (SHAPE America, 2014).

When COVID-19 struck unprecedentedly, various health protocols were implemented (Aguinaldo, 2021) and led to the implementation of thousands of school closures (Toquero, 2020). However, the Philippines adhered to its law and principle of not to stop



providing education to all; so, the government's solution was to switch from traditional to full distance learning. This shift prompted different educational stakeholders to modify their curriculum to cater to the education of students all over the country. Although it was not new after all to implement DLE/OE due to the previous concern before the pandemic, it was really hard for PE to be taught during that time since because of the public health response, young students have fewer opportunities for PA and the development of social-emotional skills while dealing with higher levels of stress and mental health issues (Jiao *et al.*, 2020). This led for teachers to employ a trial-and-error method that involved the haphazard application of several ideas (Do, 2020) where they were challenges to create effective teaching tactics for their PE lessons.

However, it was revealed that some teachers were unprepared for the shift in learning methods, especially given the short period. This confusion arose because they were primarily exposed to onsite activities. According to Silva *et al.* (2019), many sought help in understanding the best ways to implement optimal strategies for facilitating remote training online. Alongside being unprepared and lacking training or support, this instructional model encounters resistance since education professionals are unaware of the methods and opportunities that DLE/OE promotes.

In the latest study by Daw-as and Magat (2022), it was attested that Physical Education (PE) is challenging to teach face-to-face. It poses even more significant challenges due to the pandemic, resulting in the shift to DLE/OE (Hunt Institute, 2021), where all activities are conducted at home but executed via an online platform. This shift made teaching and learning difficult for both teachers and learners (Yu & Jee, 2020). Regardless, with the unique nature of the subject, PE teachers must always observe the relevance of physical movements in enough space, time, training, and other factors (Villalba *et al.*, 2017).

Building upon insights from earlier studies, it was noticed that there is indeed a challenge in teaching PE in DLE/OE (Do, 2020; Daw-as & Magat, 2022; Jiao *et al.*, 2020; Yu & Jee, 2020). However, there is a lack of elaboration on the challenges encountered by PE teachers in teaching the subject in such set-up and understanding the solutions they have implemented for its successful delivery. With the years passing and education returning to the new normal after that COVID-19 pandemic, it was observed that there are already studies conducted under this scope. Therefore, this study aims to review these available studies to gain

a full understanding of the challenges and solutions employed by PE teachers in the implementation of DLE/OE.

## 2. Materials and Methods

### 2.1. Research Design

The researchers utilized a systematic literature review (SLR) to comprehensively review and assess all available studies concerning the challenges encountered by PE teachers during the COVID-19 pandemic. A systematic literature review is a rigorous research methodology that systematically identifies, evaluates, and synthesizes relevant studies on a specific topic or question. This approach is endorsed by Mallett *et al.*, (2012), who assert that this method is characterized by its transparency and thoroughness, with the goal of providing a comprehensive and objective assessment of the available evidence.

### 2.2. Search Strategy

The search primarily focused on the phrase 'Challenges of PE Teachers During the COVID-19'. Moreover, consideration was given to utilizing databases such as Google Scholar, renowned for its extensive coverage of academic literature and open accessibility (Haddaway *et al.*, 2015), and ERIC, another valuable resource recognized for its significance in the education research field (Wang, 2020). Both Google Scholar and ERIC are robust platforms for uncovering literature reviews, offering a wealth of scholarly information. Thus, these sources are widely trusted by researchers and librarians globally, highlighting their reliability and broad usage in academic circles.

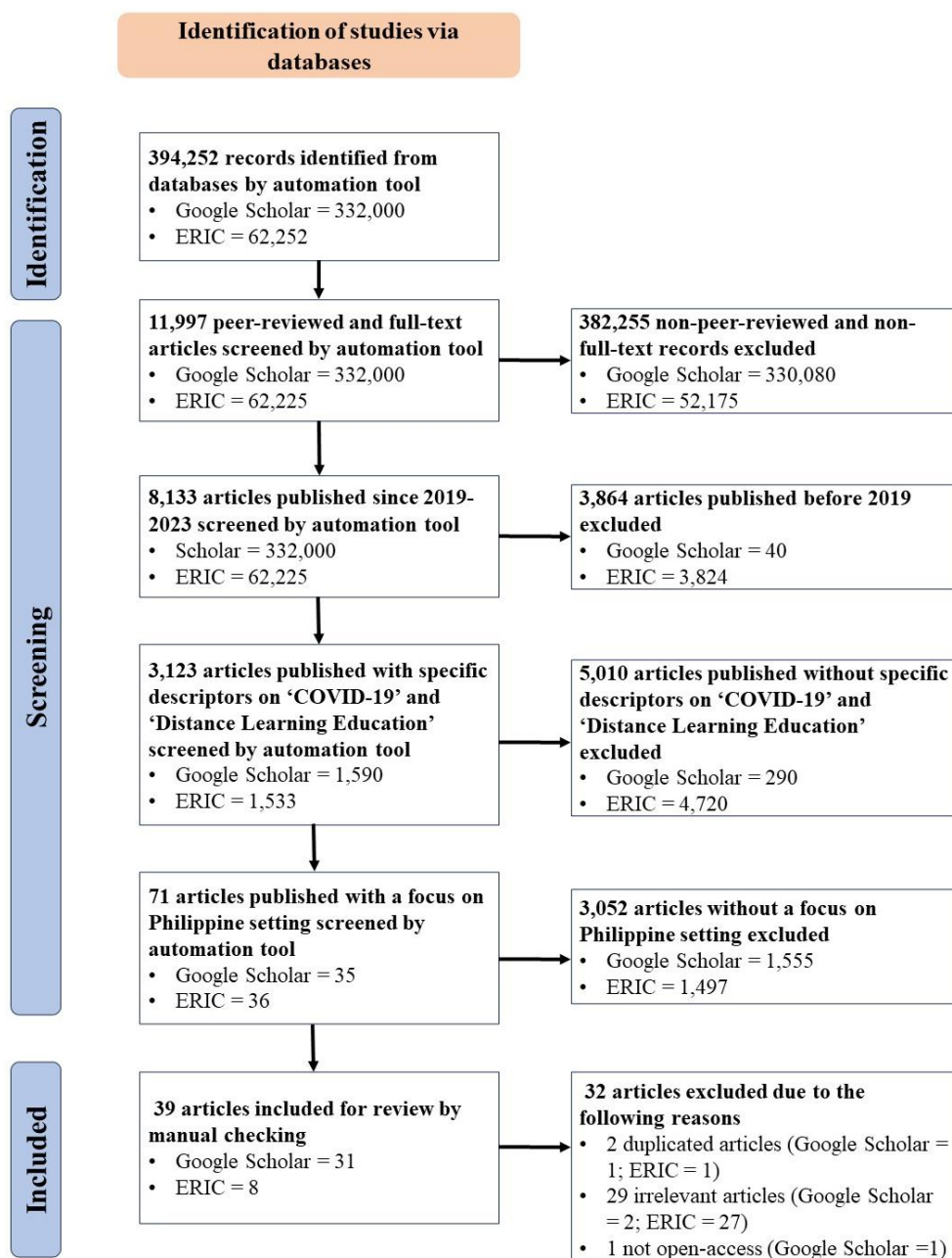
Furthermore, the researchers applied inclusion-exclusion criteria (see Table 1) in selecting literature from the mentioned databases. Specific parameters, including journal type, publication year, descriptors, and demographic considerations, were taken into account in this process.

Specifically, the analysis included only peer-reviewed articles with full-text or open-access availability in ERIC and Google Scholar. This criterion implies that publications not present in both databases were not considered. Concerning the publication year, articles published since 2019 were included, aligning with the common 5-year recommendation for article reviews (Santini, 2018). To refine the focus, two specific descriptors, namely "COVID-19" and "Distance Learning Education (DLE)," were used to further screen the generated studies. Finally, only articles based in the

Philippines were chosen to ensure specificity and focus on the content to be reviewed in this study.

**Table 1.** Inclusion-Exclusion Criteria Used in the Present Study

Parameters	Inclusion Criteria	Exclusion Criteria
Journal Type	Peer-reviewed with full text available in ERIC and Google Scholar	Articles not published in peer-reviewed journals or those without full-text availability in ERIC and Google Scholar will be excluded.
Year of Publication	2019 to present (5 years)	Articles published before 2019
Descriptors	COVID-19 and DLE	Articles that do not have relevant descriptors related to COVID-19 and DLE
Demographic	Philippines	Studies conducted outside the Philippines or not specifically focused on the challenges and solutions of PE teachers in the Philippines during the COVID-19 pandemic



**Figure 1** PRISMA Flowchart Used in the Present Study.

## 2.3 Screening and Coding

As illustrated in Figure 1, 39 articles were considered for review in the present study. Initially, 394,252 records were screened from Google Scholar ( $f=332,000$ ) and ERIC ( $f=62,252$ ). These records underwent screening based on specific criteria, resulting in the identification of 11,997 peer-reviewed and full-text articles through automation tools. Subsequently, 382,255 articles were excluded from the two databases. Among the remaining articles, 8,133 were published from 2019 to 2023. However, 3,864 articles were removed as they fell outside the specified 5-year timeframe. Additionally, 3,123 articles focused on COVID-19 and Distance Learning Education (DLE) were screened using automation tools, leading to the exclusion of 5,010 articles. Furthermore, 3,052 articles were excluded by automation tools due to their lack of relevance to the Philippine setting. Consequently, 71 articles remained after this screening process.

Nevertheless, manual checking by the researchers revealed that two (2) articles were duplicates, 29 were irrelevant to the study, and one (1) was not available in open access. Consequently, only 39 articles were deemed suitable for inclusion in the review.

Moreover, the researchers employed thematic analysis following the guidelines of [Clarke and Braun \(2013\)](#) to determine the challenges and solutions implemented by PE teachers in the implementation of DLE during the COVID-19 pandemic. After becoming familiar with the data regarding both challenges and solutions, the researchers identified codes and subsequently aggregated them to form themes. Finally, an analysis was conducted based on the identified themes. The thematized challenges found formed an acronym C.I.S.E.T., and these are: Connectivity (C), Interaction Gap (I), Space Constraints (S), Engagement Struggles (E), and a Training Void (T). For the solutions, these are Interprofessional Collaboration for Pedagogical Resilience (I), Innovative Pedagogical Adaptations (I), Technological Proficiency and Pedagogical Competence (T), Adaptive Pedagogy in Remote Environments (A), forming the acronym I.I.T.A.

## 3. Findings and Discussions

### 3.1 Challenges of PE teachers in Distance Learning Education

**Connectivity Issues.** The abrupt shift to DLE during the COVID-19 pandemic threw the pervasive internet connectivity issue into stark relief. These

findings are substantiated by extensive literature, including studies conducted by [Aguinaldo \(2021\)](#), [Belleza et al., \(2021\)](#), [Blegur et al., \(2022\)](#), [Tegero \(2021\)](#), and others. This challenge posed a significant hurdle for PE teachers in effectively delivering their lessons and engaging students in PA. Unstable internet connections can significantly hinder the delivery of practical online physical education (OPE) classes; buffering videos, and frequent intermittent and slow internet connections disrupt the flow of instruction and hinder the teachers from delivering the lesson effectively ([Daw-as & Magat, 2022](#)), affecting students' ability to participate fully. This technical barrier not only hampered the delivery of PE content but also exacerbated the digital divide between PE teachers and students with reliable internet access and those without.

Intermittent internet connection is beyond the control of teachers; however, the unstable internet affects how PE teachers deliver the lessons. If teachers do not know how to immediately think of a solution, such as upgrading their internet network and availing of other network providers that can be used as alternatives in case an internet signal fails in their primary internet provider, it is definitely a problem that can consequently affect the learning of students. In the course of dealing with the pandemic that propelled the educational system to turn to DLE, teachers were left to use their own devices. Despite technological advancements in the field of DLE, issues such as slow internet and technological problems remain significant barriers to success.

**Interaction Gap.** PE courses can be greatly influenced by space, both online and face-to-face learning. In PE, learning spaces focus on how PE teachers and students demonstrate different skills in their class. The transformation from the traditional role of PE teachers to purely OT is significantly huge, mainly due to the distinctive characteristics of online settings. One of these characteristics is the physical separation or physical distance between the teachers and their students. PE teachers clearly identified the activities in PE that need to be checked at once, whether they are being done or executed appropriately. However, they cannot possibly do the instant checking or correcting because of physical distance. This is a struggle for both teachers and students - for the students when they are struggling to execute different PA or exercise appropriately, but there are no teachers physically available to assist them; for the teachers when they struggle in their urge to assist the students but cannot possibly do it since the class is virtual. The effect of physical distance posing a struggle in an online class

when it comes to the immediacy of corrective measures is the teacher's giving an immediate response and feedback to students' performances. These findings are substantiated by the extensive body of literature, exemplified by the researchers who conducted the studies (Angkay and Tagare, 2022; Bautista *et al.*, 2021; Caratiquit and Caratiquit, 2022; Castañeros, 2022; Delas Peñas, 2022; Dimarucot, 2022; Ibañez, 2022; Millan, 2022; Mojica, 2021; Nepangue and Ibanez, 2022; Postrado and Olipas, 2022; Tanucan, 2023).

One barrier to engagement is the absence of the physical teacher; PE is a skill-based course (Daw-as & Magat, 2022; Tanucan, 2023). The skills need to be physically modeled or demonstrated by the teacher for the students to feel and understand the message, meaning, and impact of every exercise and PAs students need to execute appropriately. Watching the demonstrations on videos is helpful, but it is not as effective when a physical teacher demonstrates the skills in actuality. Thus, this deemed need for physical presence is one thing that is making student engagement genuinely challenging. Undeniably, instructor presence is an essential aspect of OT and learning, and shared a variety of communication strategies to promote this presence, indicating that learning more about this construct is worthwhile (Richardson *et al.*, 2016). The immediacy of correcting and monitoring students' activities or performances by PE instructors is undeniably crucial in the learning and improvement or assistance in the progress of students; however, the teachers realized that instant monitoring of student's performance is a struggle due to the absence of physical presence or physical distance. This agrees with the study by Ekblaw (2016) that communication is better if teachers and students talk or discuss in person. Learning space is significant as it builds a good relationship between the student and teacher, and considering the nature of the course, which involves a great deal of psychomotor movements and requires an environment where the teacher is a physical presence, it is a struggle for both teachers and students to potentially accomplish the tasks due to the physical absence of teachers or physical distance in PE; this could be compromised due to these limitations and impediments that lead to a possible roadblock to the successful implementation of the course. In this kind of situation, the teacher should be more creative or resourceful in providing an alternative activity without compromising the needed competencies of PE courses. There could always be alternatives to accommodate the needs of the learners. The teachers have to be constantly flexible. As Rands and Gansemer-Topf

(2017) said, the flexible classroom space facilitated the use of various student engagement techniques while also inspiring instructors and students with an array of pedagogical choices.

PE, at its very core, is a social and interactive subject. The physical classroom facilitates peer-to-peer interaction, fostering teamwork, sportsmanship, and a sense of community. The transition to OL presented a formidable challenge in replicating this dynamic in a virtual setting. The lack of face-to-face interaction made it difficult for PE teachers to assess students' progress, provide individualized feedback, and foster a sense of community among their learners.

**Space Constraints.** One of the fundamental challenges faced by PE teachers during the pandemic was the limited space in OT for students and teachers to engage in PAs, and the research conducted underscores this predicament as exemplified by the studies of Amoloza *et al.*, (2022), Angkay and Tagare (2022), Blegur *et al.*, (2022), Camacho and Butac (2022), Daw-as and Magat (2022), Ignacio (2023), Reyes *et al.*, (2023), Tanucan (2023). PE teachers are tasked with the intricate responsibility of not only acknowledging but actively addressing the spatial constraints that students grapple with in their small living environments. Confined to their homes, students often need help finding adequate space to perform exercises, dance moves, or even simple stretches. This restriction significantly hampered the ability of PE teachers to deliver their lessons effectively and posed a safety risk for students attempting to perform PAs in cramped or unsuitable environments.

Limited physical space in students' homes can restrict the range of PAs that can be incorporated into OPE classes. Traditional PE classes often utilize extensive gymnasiums or outdoor spaces to facilitate various exercises and sports. In contrast, OPE classes must adapt to the confines of students' homes, potentially limiting the scope of PAs and hindering the achievement of PE objectives. This challenge demands more than a mere adjustment of lesson plans; it calls for a fundamental reimagining of how PE is delivered. PE teachers find themselves at the intersection of creativity and practicality.

**Engagement Struggles.** Getting students engaged in any class activity has emerged as a central pedagogical challenge for teachers navigating this remote learning. This challenge is discernible in the diverse array of studies conducted by Angkay and Tagare (2022); Aguinaldo (2021), Bautista *et al.*, (2021), Blegur *et al.*, (2022), Camacho and Butac

(2022), Castaños (2022), Cathy and Toquero (2020), Daw-as and Magat (2022), Delas Peñas (2022), Ibañez (2022), Ignacio (2023), Lapuz (2022), No (2022), Ronamo (2021), Rosell (2022), Zarla (2021). Within the OPE setting, the traditional dynamics of student engagement undergo a profound transformation, presenting PE teachers with unique challenges (Daw-as & Magat 2022). The shift from an active, hands-on learning environment to an online one often begets passive learning tendencies among students. This phenomenon is exacerbated by the unfamiliarity of a digital learning setting.

Acknowledging the uncommon nature of DLE/OE for students, it becomes apparent that adverse reactions are a natural response to this novel educational landscape. While some students seamlessly adapt to remote learning, a considerable cohort encounters difficulties adjusting, posing a significant challenge for PE teachers in facilitating meaningful class engagement. The struggle intensifies as teachers endeavor to fully engage students in required tasks, with a noteworthy portion performing these activities perfunctorily, merely meeting the minimum requirements for course passage.

A comprehensive exploration of existing literature underscores the recurring theme: PE teachers frequently encounter a lack of student interest and value in their courses within the online framework. This challenge is particularly palpable during synchronous meetings, where discussions and the execution of PAs often fall short of desired levels of active participation.

The central focus shifts to the pedagogical predicament faced by PE teachers in facilitating effective DLE. The struggle lies not in the inherent disinterest of students but in the complexity of fostering engagement within the constraints of a virtual environment (Aguinaldo, 2021; Blegur *et al.*, 2022; Castaños, 2022; Camacho & Butac, 2022; Daw-as & Magat, 2022; Rosell, 2022). Teachers grapple with the task of devising innovative strategies to capture students' attention, motivate active participation, and inspire genuine interest in OPE sessions.

Moreover, inspiring students to participate in PAs through a screen actively demands a deep understanding of online pedagogy and a creative approach to leveraging online platforms. This scholarly exploration illuminates the multifaceted challenge faced by PE teachers in sustaining student engagement, emphasizing the need for inventive teaching methods that transcend the limitations imposed by online instruction. In essence, the literature review

underscores the pivotal role of teachers in navigating the pedagogical intricacies of DLE, highlighting the ongoing quest for strategies that effectively bridge the engagement gap in the OPE classroom.

**Training Void.** The shift to DLE/OE caught many PE instructors off guard, revealing a deficiency in their training and professional development (PD). This gap is evident in the studies conducted by Cathy *et al.*, (2021), Caratiquit and Caratiquit (2022), Corcuera and Alvarez (2021), Delas Peñas (2022), Espiña-Verano (2019), Gutierrez *et al.*, (2023), Mojica (2021), Nadiahan and Cabauatan (2021), Nepangue and Ibanez (2022), Paderanga *et al.*, (2023), Rosell (2022), Sinag (2023), Tanucan *et al.*, (2021), Toquero (2020), Torrado *et al.*, (2021), Torres *et al.*, (2022), Tria (2020), and Valdez *et al.*, (2023). While they possessed expertise in delivering PE lessons in a conventional classroom setting, the demands of OT required a new set of skills and pedagogies. The intricacies of adapting PE to an online format extend beyond mere content transfer; it demands a fundamental rethinking of instructional methods, assessment strategies, and even the very nature of teacher-student interaction. It was found out that many PE teachers expressed a need for more training and support in utilizing OT platforms, developing engaging online content, and effectively assessing student progress in a virtual environment.

The absence of comprehensive guidance on effective OPE educators exacerbates the difficulties faced by PE teachers. Unlike courses with well-established OT practices, the realm of PE involves hands-on activities, real-time feedback, and a level of physicality that traditional teaching models may not easily accommodate. As such, PE teachers are confronted not only with the task of mastering new technological tools but also with the challenge of preserving the interactive and dynamic nature of their discipline in a virtual space.

PD opportunities explicitly tailored to the online landscape are not just desirable; they are imperative. These opportunities need to extend beyond basic technology training, delving into the nuanced pedagogical approaches unique to the virtual realm of PE. Moreover, the lack of training is not just a technical hurdle; it's a pedagogical gap that influences the quality of education students receive. Effective OPE instruction involves not only the mastery of digital tools but also the ability to design engaging and interactive virtual experiences that facilitate skill development and foster a passion for PA.

Institutions and educational authorities play a pivotal role in addressing this training void. Recognizing the unique challenges faced by PE teachers in the online space, there is a need for targeted support and resources. This includes the development of comprehensive training modules, access to expert mentors, and the integration of technology seamlessly into the PE curriculum.

In essence, the lack of training for PE teachers in implementing OPE is not just a logistical hurdle; it's a transformative moment that demands reevaluating how we approach PE in the digital age (Daw-as & Magat, 2022). It is an opportunity for collaborative efforts, where educators, administrators, and policymakers come together to bridge the training gap, ensuring that PE teachers are not only proficient in the technical aspects of online instruction but also equipped with the pedagogical finesse to deliver a rich and meaningful virtual PE experience. PD opportunities and training programs can help bridge this gap and equip PE teachers with the tools they need to excel in the online arena.

In summary, the landscape of DLE-PE teaching during the COVID-19 pandemic is marked by the challenges encapsulated in Connectivity (C), Interaction Gap (I), Space Constraints (S), Engagement Struggles (E), and a Training Void (T), forming the acronym C.I.S.E.T. Beyond the acronym, this amalgamation can be reframed as "Cognizant Instructors Strive Effortlessly Together." This conceptualization encapsulates the collaborative spirit exhibited by PE teachers, demonstrating a collective and conscious effort to adapt seamlessly to the challenges inherent in OT PE. This collaborative ethos empowers PE instructors to navigate the complexities of virtual instruction, ensuring the delivery of effective and engaging OPE sessions. Through this concerted endeavor, PE teachers uphold the commitment to providing students with the enduring physical, social, and emotional benefits of PE, transcending the constraints imposed by the virtual setting. Top of Form

### 3.2 Solutions Made by PE Teachers to Address Such Challenges in Teaching Online

The DLE during the COVID-19 pandemic has brought forth unique changes for PE teachers. In the face of these obstacles, educators have demonstrated remarkable resilience and ingenuity, employing various solution mechanisms to not only overcome hurdles but also to thrive in the DLE/OE teaching landscape.

Interprofessional Collaboration for Pedagogical Resilience. PE teachers have showcased resilience in the dynamic realm of online teaching and DLE/OE. This theme underscores the educators' commitment to fostering collaborative connections, which, in turn, inspires a collective sense of achievement within the teaching community.

In building a robust pedagogical community, PE teachers intentionally cultivate collaborative networks beyond individual classrooms. This collaborative ethos becomes a foundation for collective resilience, addressing the challenges posed by OT. The essence of this theme lies in the inspiration drawn from collaborative efforts, providing solutions, and fostering a shared commitment to excellence in OT.

The reciprocal nature of collaboration is a cornerstone where knowledge-sharing becomes a catalyst for continuous professional growth. PE teachers engage in a shared learning process through regular communication, virtual meetings, and collaborative platforms. This collective knowledge-sharing addresses immediate challenges and contributes to the ongoing development of effective OT strategies.

The collaborative approach creates a robust support system for educators, countering the isolation inherent in remote teaching, supported by the studies of Cathy and Toquero (2020), Daw-as and Magat (2022), Valdez *et al.*, (2023), Zarla (2021). This sense of community becomes crucial in sustaining teachers' morale and motivation. Notably, the collaborative efforts among PE teachers directly impact student learning experiences, enriching the online curriculum and providing students with a more diverse and engaging educational journey.

In summary, this theme reflects a profound commitment among PE teachers to collectively navigate the challenges of DLE. Illuminating connections and inspiring team achievement, teachers have laid the groundwork for a collaborative, resilient, and continuously evolving approach to online pedagogy. This theme serves as a testament to the strength derived from unity and the transformative impact of collective dedication within the realm of OPE.

Innovative Pedagogical Adaptations. Amid the challenges presented by the COVID-19 pandemic, PE teachers exhibited a commendable spirit of adaptability. This theme underscores the teachers' creative endeavors in crafting alternative assessments and activities to ensure the continued success of PE in the OL environment.

Teachers have exhibited an inventive spirit in crafting alternative exercises, activities, and assessments suitable for the online realm, and these are manifest in the studies of [Angkay and Tagare \(2022\)](#), [Delas Peñas \(2022\)](#), [Lapuz \(2022\)](#), [Paderanga et al., \(2023\)](#), [Postrado and Olipas \(2022\)](#), [Ronamo \(2021\)](#), and [Torres et al., \(2022\)](#). Faced with limitations on traditional PAs, teachers have reimagined the curriculum, aiming to maintain engagement, meaning, and alignment with educational objectives within the constraints of digital platforms.

This strategic effort to preserve student engagement is a pivotal aspect. Crafting creative curricula goes beyond mere pedagogical adjustment; it is a calculated initiative to maintain student enthusiasm for PE. Teachers have sought to ensure that the virtual learning experience remains dynamic and compelling by introducing novel activities seamlessly translated into the online space.

Adapting assessments for virtual platforms is another crucial component; PE teachers have explored innovative assessment strategies that effectively gauge students' understanding and progress in an online setting. These strategies not only measure academic achievements but also consider the unique challenges of assessing PA remotely, emphasizing a holistic approach to student evaluation.

Also, this encompasses the integration of technology to enhance the learning experience. Teachers have leveraged digital tools and platforms to supplement PAs, providing students with additional resources, instructional videos, and interactive elements. This integration aims to bridge the gap between traditional and OL, ensuring a seamless and enriched educational experience.

Recognizing the ever-evolving nature of DLE/OE, the theme emphasizes the importance of flexibility in implementation. PE teachers remain open to refining and adjusting their innovative adaptations based on ongoing feedback, ensuring that pedagogical approaches remain responsive to the dynamic needs of students and the educational landscape.

To encapsulate this theme, it reflects the ingenuity and resourcefulness of PE teachers in navigating the challenges of OT. Through creative curriculum design, thoughtful assessment strategies, and the seamless integration of technology, educators demonstrate a commitment to ensuring the success of PE in a virtual environment, illustrating the resilience and adaptability inherent in effective pedagogy.

Technological Proficiency and Pedagogical Competence. This overarching theme underscores teachers' dedicated efforts to integrate technological innovations into their teaching practices seamlessly.

The deliberate integration of technology goes beyond adopting digital tools—it represents a strategic decision to leverage technology for pedagogical advancement. PE teachers consciously integrated technology into their instructional methodologies, recognizing its potential to enhance the overall teaching and learning experience, especially in the context of the shift to DLE/OE.

In the pursuit of pedagogical competence within the technological landscape, teachers committed to continuous skill development. Understanding the dynamic nature of educational technology, teachers engaged in ongoing PD to stay updated on the latest advancements. This commitment ensured their proficiency in utilizing a diverse range of digital tools to optimize instructional methods.

Technology integration wasn't just about proficiency; it aimed to create interactive and engaging learning environments. PE teachers explored virtual platforms, multimedia resources, and interactive applications to deliver content that resonated with students in the online setting. This approach bridged the physical and digital realms, offering a holistic and immersive learning experience.

Recognizing the diversity of learning styles among students, "Technological Proficiency and Pedagogical Competence" emphasizes using technology to customize instruction. Teachers leveraged technology to cater to individual needs and preferences through virtual simulations, interactive modules, or multimedia presentations. This integration facilitated a more personalized and inclusive approach to teaching, as supported by an array of scholarly works, including studies by [Belleza et al. \(2021\)](#), [Castaños \(2022\)](#), [Daw-as and Magat \(2022\)](#), [Ignacio \(2023\)](#), [No \(2022\)](#), [Reyes et al., \(2023\)](#), and [Ronamo \(2021\)](#).

The theme also highlighted the use of technology for data-informed instruction. PE teachers leveraged analytics and digital assessment tools to gather student performance and engagement insights. This data-driven approach empowered teachers to adapt their instructional strategies in real time, ensuring a more responsive and effective teaching process.

In conclusion, the theme reflects a strategic and comprehensive approach adopted by PE teachers in navigating the challenges of OT. Teachers



demonstrated a profound understanding of technology's transformative potential by seamlessly integrating technological innovations, committing to continuous skill development, and embracing data-informed instruction. This approach enhances the quality and effectiveness of PE in the digital era, showcasing educators as proactive navigators of the evolving educational landscape.

Adaptive Pedagogy in Remote Environments. This overarching theme encapsulates educators' proactive approach to mastering the intricacies of DLE and maintaining a positive outlook toward remote teaching.

This proactive mindset among PE teachers became a cornerstone for transformative teaching in a digital landscape. Faced with the necessity of remote teaching, educators didn't merely react to challenges but actively sought to learn and develop the skills required for effective online instruction.

Central to this theme is the educators' willingness to embrace change. Recognizing the evolving educational landscape, PE teachers displayed a positive outlook, viewing the challenges of remote teaching as opportunities for growth (Amoloza *et al.*, 2022; Gutierrez *et al.*, 2023; Millan, 2022; Mojica, 2021; Sinag, 2023; Tegero, 2021). This willingness to adapt fostered a culture of continuous improvement and innovation in pedagogical approaches.

Maintaining a positive outlook had a direct impact on student engagement. Teachers infused optimism into their virtual classrooms, creating an atmosphere conducive to learning. This positive approach motivated students and facilitated a smooth transition to remote education by fostering a sense of continuity and normalcy within the educational experience.

"Adaptive Pedagogy" required a reevaluation of instructional strategies. Teachers embraced flexibility in their approach, recognizing the diverse needs of students in remote environments. This flexibility extended beyond curriculum adjustments to include considerations for individual circumstances, accommodating students who faced challenges such as limited space or resources at home.

A key component of adaptive pedagogy was the incorporation of feedback loops. Educators actively sought feedback from students and colleagues, using this input to improve their instructional methods iteratively. This commitment to continuous improvement ensured that remote teaching strategies

evolved in response to the dynamic needs of both educators and students.

In order to encapsulate, the theme signifies a transformative and forward-thinking approach adopted by PE teachers. Through proactive learning, a willingness to embrace change, and a positive outlook, educators navigated the challenges of remote teaching and paved the way for innovative and adaptive pedagogical practices. This theme highlights the resilience and adaptability inherent in effective teaching, demonstrating that even in remote environments, transformative education is achievable through a proactive and positive mindset.

In summary, with the solutions made by PE teachers to address such challenges in teaching online amidst the exigencies of OT, PE teachers draw strength from a multifaceted solution: Interprofessional Collaboration for Pedagogical Resilience (I), Innovative Pedagogical Adaptations (I), Technological Proficiency and Pedagogical Competence (T), Adaptive Pedagogy in Remote Environments (A), forming the acronym I.I.T.A. It symbolizes their commitment to integrating inventive practices for effective OE seamlessly. Re-conceptualized as "Innovative Integration in Teaching Approaches" (I.I.T.A.), this framework underscores educators' dedication to merging innovation and collaboration. The narrative unfolds as a testament to resilience and scholarly commitment, portraying PE teachers not only as guides but as architects of transformative educational experiences within the /DLEDOE landscape.

As we delve into the challenges and solutions in OPE teaching, the narrative resonates with resilience and innovation. PE teachers transcend their roles, emerging as architects dedicated to upholding core principles in PE amid unprecedented challenges. The lessons learned are poised to shape the trajectory of DLE/OE, with collaborative support, reflective practices, and a holistic approach to educator well-being standing out as pivotal elements.

Looking ahead, PE teachers' commitment to transformative education sets a precedent for the broader educational landscape. The I.I.T.A. framework symbolizes their immediate response to challenges. It serves as a beacon for future endeavors, emphasizing the enduring impact of collaborative support and innovative practices in the evolving realm of DLE/OE.

## 4. Conclusion

In navigating the uncharted territory of DLE during the COVID-19 pandemic, PE teachers confronted

a series of challenges, and these hurdles demanded a paradigm shift in teaching strategies, particularly in maintaining physical engagement and connection in a virtual setting. Within these challenges emerged a narrative of resilience and innovation.

PE teachers showcased a commitment to collective success by providing students with a diverse educational journey. They reimagined the curriculum to maintain engagement, meaning, and alignment with educational objectives within the constraints of digital platforms. Recognizing technology's potential to enhance the overall teaching and learning experience, they embraced change, maintained a positive outlook, and actively sought to learn and develop the skills required for effective online instruction. This proactive mindset not only facilitated a smooth transition to remote education but also fostered a culture of continuous improvement.

With this, it implies how innovative and resilient PE teachers are, positioning them not just as guides but as architects of transformative educational experiences within the OT landscape. These lessons learned serve as a beacon for the broader educational landscape, emphasizing the enduring impact of collaborative support and innovative practices in the evolving realm of DLE/OE.

## 5. Recommendations

Drawing insights from the comprehensive exploration of challenges and solutions faced by PE teachers during the COVID-19 pandemic, several recommendations emerge to fortify the resilience and effectiveness of OPE teaching.

Firstly, there is an urgent need for educational institutions and policymakers to invest in robust technological infrastructure, ensuring reliable internet connectivity for both teachers and students. Tailored professional development (PD) programs are imperative, extending beyond basic technology training to encompass nuanced pedagogical approaches essential for virtual learning environments.

In line with this, there is a need to recognize the emotional toll of OT; institutions should implement support mechanisms, providing avenues for candid conversations and mental health resources. Encouraging flexible pedagogical approaches and intentionally modeling physical activity underscore the importance of an active lifestyle.

Furthermore, promoting mindfulness and positive thinking practices contributes to the well-being of PE teachers and the overall teaching atmosphere. A culture of continuous research and adaptation, along with advocacy for holistic education, ensures PE teachers remain at the forefront of pedagogical innovation in the ever-evolving landscape of DLE/OE.

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Yes

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