



Challenges and Interventions of Physical Education Teachers in Assessing Students' Learning in the Online Modality

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Abstract: Despite the emergence of several studies on online learning in Physical Education (PE) research, little has been mentioned about the assessment of learning outcomes in PE. This qualitative research aimed to understand the challenges and intervention strategies of PE teachers in assessing learning outcomes in the online modality. Nine elementary PE teachers from the laboratory elementary schools in Baguio City, Philippines participated in a semi-structured interview. The findings revealed that elementary PE teachers were faced with challenges in assessing PE learning online, but made interventions to these challenges. Three themes surfaced to describe the challenges: challenges in viewing students' output, challenges in trusting, and challenges in monitoring students. The two themes described the interventions as differentiating students' requirements and collaborating with parents. In assessing the PE learning outcomes online, the participants found it difficult; however, they realized that finding ways to overcome these difficulties is part of what teachers should do. The findings offer valuable insights that can inform and guide PE teachers in effectively assessing students' learning outcomes in the online learning modality.

Keywords: Physical Education Online Learning, Challenges, Interventions, Learning Outcomes Assessment

1. Introduction

Shifting from face-to-face pedagogy to an online modality due to the COVID-19 pandemic has presented significant challenges for schools and educators (Aguinaldo, 2021; Dayagbil et al., 2021; Silva et al., 2021). Recently, discussions have emerged regarding the impact of the online teaching platform on Physical Education (PE) pedagogies and how this shift may exacerbate or address existing issues within the discipline (Apriyanto & Adi, 2021; Centeio et al., 2021; González-Calvo, 2021; Jeong & So, 2020). In this context, researchers have begun to explore online modalities following the pandemic-induced educational system changes, revealing that both students and educators encounter similar challenges (Webster et al., 2021). Consequently, governmental intervention in physical education, such as enacting laws within the education sector, becomes imperative (Apriyanto & Adi, 2021). Teachers must adapt by implementing pedagogical techniques tailored for online classrooms to foster a conducive learning environment for students.

Physical Education is a course renowned for its significant contribution to the holistic development of students. Research has consistently demonstrated that physical activity participation, a central component of Physical Education, targets various domains among children. Apart from enhancing the psychomotor domain, it also plays a vital role in fostering the development of affective domains such as social skills (Bailey, 2006; Opstoel et al., 2019; Weiss, 2011) and cognitive domains (Luisnea, 2018; Zeng et al., 2017). Furthermore, physical activity participation uniquely contributes to the development of children's fundamental movement skills and physical competencies, which serve as essential precursors for engagement in later lifestyle and sporting activities (Baharom et al., 2014; Bailey, 2006).

The COVID-19 pandemic has brought about adjustments to the type of PE instruction delivery. These adjustments have been a challenge among educators. Some research has identified challenges or struggles in teaching online Physical Education and one of these struggles is related to the use of technology (Centeio et al., 2021; Goad & Jones, 2017; Kirbaş,

2020; Klapproth et al., 2020), teachers and student interactions, and students' learning motivation (Centeio et al., 2021; Chan et al., 2021; Pankaja & Sharma, 2020; Yu & Jee, 2020) lack of practical training (Chan et al. 2021; Yu & Jee, 2020) lack of knowledge in operating online physical education classes, the monotony of the lessons within their constrained environmental circumstances and limited instructional material (Jeong & So, 2020). The study of Yu and Jee (2020) on the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model implied the need to improve quality feedback which is an important part of assessing students' output. Feedback is a critical part of the assessment process that helps students understand their strengths and weaknesses and points out the things that they need to do to improve their learning (Hattie & Timperley 2007). The above studies identified challenges in online learning but have not discussed struggles with assessment. Hence a need for further studies on the challenges encountered in assessment.

There have been studies that explored the challenges experienced by PE teachers such as the works of Adedoyin and Soykan (2020), Aguinaldo (2021), Jeong and So (2020), Kwon (2020), Mishra et al. (2020), and Tegero (2021); however, they have not explored the intervention for these challenges. Intervention is a strategy employed by PE teachers with the challenges faced in assessing students' learning outcomes online to enhance academic success (Lodge et al. 2018). Hence, there is a need for further research on the interventions that PE teachers may have resorted to in dealing with the challenges of assessing their students' learning outcomes online.

The above studies were conducted in the context of both middle school and primary school experiences (Centeio et al., 2021; Chan et al., 2021; Klapproth et al., 2020) and higher education (Goad & Jones, 2017; Kırbaş, 2020; Yu & Jee, 2020) which further indicates the need to study at the elementary level.

Assessment is an essential part of the schooling and learning sequence in physical education contexts (Frapwell, 2010). Ní Chróinín and Cosgrave (2012) showed that assessment systems improved the nature of instructing and learning in actual training as it makes instructors and students see the importance of schooling. To ensure learning is taking place, be it online or face-to-face, assessment should be utilized to augment the worth of instruction and learning in physical education (Ní Chróinín & Cosgrave, 2012).

Several studies by Jeong and So (2020), López-Pastor et al. (2012), Ní Chróinín and Cosgrave (2012), and Pankaja & Sharma (2020) supported assessment in physical education can be utilized as a degree of responsibility. The evaluation and examination of the rate and level of kids' learning in actual training can assist with illuminating and making future shows more powerful. The study of López-Pastor et al (2012) emphasized the importance of placing the learner at the center of the assessment process and the assessment providing a view of the whole child; they also highlighted the importance of including the children in decision-making or making the assessment process to ensure that it is a positive and worthwhile experience for both teacher and students. Quality assessment, which enables teachers to make appropriate instructional decisions by continuously measuring student performance in the psychomotor, cognitive, and affective domains is an important component of a good physical education program (SHAPE America – Society of Health and Physical Educators, 2014). Veloo and Ali (2016) described two important forms of assessment utilized in PE; summative assessment and formative assessment. Formative assessment in PE is regarded as "ongoing" and occurs during teaching-learning scenarios. Summative assessment, on the other hand, is a comprehensive evaluation that occurs after a unit or year. The scoping review conducted by Killian et al. (2019) pointed to the lack of evidence regarding students' physical activity and skill development in the online learning mode. This warrants further study in the area of assessment which this paper wants to study.

Studies have been conducted to assess PE in the face-to-face mode (Pankaja et al., 2020; Ní Chróinín & Cosgrave, 2013). Since shifting to the online way is an option, conducting studies in this area is warranted. However, current literature reveals the scarcity of studies in this area. Bores-Garcia's (2020) systematic review on the use of peer assessment in PE implied further study on this area of assessment in Physical Education. Ní Chróinín and Cosgrave, (2013) mentioned challenges for teachers concerning time allotted for planning and difficulty accessing sample assessments and differentiating assessments for different class levels and abilities. Jeong and So (2020) reveal that minimal evaluation guidelines in schools made systematic evaluation with online methods impossible. Yu and Jee (2020) emphasized the significance of timely and high-quality feedback. Educators should plan ahead of time, minimize technical faults, and continually motivate students. This dearth of literature on assessment in online PE drives the conduct of a current study that will

start with understanding the difficulty or challenges and intervention strategies of PE teachers in assessing learning.

The above discussion has presented various challenges to PE teaching online but these challenges are focused only on teaching and learning processes (Centeio et al. 2021; Goad & Jones, 2017; Kirbaş, 2020; Klapproth et al., 2020; Pankaja & Sharma, 2020; Yu & Jee, 2020), few studies are done on challenges of PE teachers in assessing students learning outcomes in the online modality. The lack of studies focusing on the difficulties of PE teachers in assessing students' learning outcomes in the PE online mode is a significant gap in the literature. The need for more research on the difficulties of PE teachers will help in how PE teachers may manage these difficulties of assessing students' learning outcomes in online learning to optimize the advantages of online learning. Jeong and So (2020), Kwon (2020), and Tegero (2021) highlighted the importance of future research into the difficulties of online PE to develop interventions and modifications to the strategic learning technique that would address these issues in online learning. Literature reveals a scarcity of studies in the area of intervention strategies for teachers related to their online teaching.

With the challenges faced by educators in the COVID-19 pandemic, teachers learned to adapt themselves to these challenges. The changes required by the pandemic may present an opportunity to adapt to the educational needs of today (Jeong & So, 2020). There were studies conducted on the challenges of educators in the online modality (Centeio et al., 2021; Goad & Jones, 2017; Kirbaş, 2020; Klapproth et al., 2020; Pankaja & Sharma, 2020; Yu & Jee, 2020) but have not explicitly studied the intervention done by educators on these challenges they encountered.

This study seeks to understand PE teachers' challenges and intervention strategies in assessing students' learning in the online modality. Specifically, this study aimed to find answers to the following questions: (1) What are the challenges encountered by elementary PE teachers in assessing students' learning in the online modality? (2) What are the intervention strategies of elementary PE teachers in addressing the challenges they experience?

2. Materials and Methods

2.1. Research Design

This study used a qualitative research design using a phenomenological approach. A

phenomenological approach is a research strategy of inquiry in which the researcher identifies the common meaning of human experiences about a phenomenon as described by the participants (Creswell, 2013). This approach is appropriate for this study to gain a deeper understanding of the lived experiences of PE teachers in assessing their students' learning in the online modality. In addition, phenomenology is used to understand what is common in the lived experiences of the participants with the primary goal of describing the nature of the particular phenomenon as lived by the participants (Creswell, 2013).

2.2. Population and Locale of the Study

Nine (9) Elementary PE teachers with direct experience in assessing their student learning in the online modality during the pandemic from three reputable elementary private schools namely the University of Baguio Laboratory Elementary School, University of the Cordilleras Laboratory Elementary School, and Saint Louis University Laboratory Elementary School in Baguio City, Philippines, that offered online classes during the covid-19 pandemic, were interviewed as participants of this study. The participants have two years of online teaching experience in PE during the COVID-19 pandemic. All elementary teachers in these schools in Baguio City were recruited and participated in this study. The participants were chosen through total enumeration.

2.3. Data gathering tool

The researcher conducted a semi-structured interview using an interview guide developed based on the a priori codes. The following sample questions were asked 1. Tell me about your experiences in assessing students' learning outcomes in Physical Education in the areas of cognitive, affective, and psychomotor. 2. What actions did you take in addressing the problems you encountered in assessing students' learning outcomes? Experts in the field validated the set of questions, ensuring their reliability and appropriateness for research purposes. During the interview, the researcher recorded the answers on a notepad and a cellular phone. The recording was saved in a flash drive.

2.4. Data gathering procedure

Letters containing the researcher's contact information and an explanation of the intent of the research were given out to participating schools,

University of Baguio Elementary School, University of the Cordilleras Elementary School, and Saint Louis University Elementary School, through their respective administrative offices to ask permission and clearance to interview with their PE teachers. After clearance, the recruitment letter was distributed to the participants online. The researcher confirmed and finalized the number of participants for the interview after receiving the approval of the request letter. The researcher and the participants set when and where the face-to-face interview would be held. Next, the researcher visited the participants three times for the following: The first visit was done for the participants' signing of the informed consent form; the second visit was for the interview proper; the third visit was done for the member checking.

The interview was entirely of free will and all responses were treated with the utmost confidentiality as such, before each interview, a consent form was read and signed by the study participants, and they were asked for permission to record the discussion. All interviews were conducted at the time and location preferred by the key informants.

Open-ended questions were asked during the interview, allowing for a discussion with the interviewee. This medium which comes with a casual tone, encourages two-way communication because the interviewer and the candidate can ask questions, allowing for a comprehensive discussion of pertinent topics. Using a casual tone in an interview may make the participants feel more at ease discussing their experiences (DeJonckheere & Vaughn 2019).

Before the gathering of data was conducted, the paper was checked and reviewed by the technical team of the University Research Ethics Committee, Saint Louis University SLU-REC for any ethical issues, clarifications or queries about the research, safety of participants, contact details of the researcher, including that of SLU-REC, the committee whose task is to make sure that research participants are protected from harm.

All key informants were asked to use the language they were comfortable using. Such practice was observed to ensure a more natural and open atmosphere; thus, establishing better rapport and understanding between the participant and the researcher (Kawulich, 2005). Before the interview started, the participants were assured that no one else but the researcher could access the interview recording. Following the completion of the interview, the researcher transcribed the data, and any responses

from the interview that were delivered in a language other than English were translated into English by the researcher. The transcripts were returned to the participants for member approval before proceeding to the data analysis.

2.5 Data Management Analysis

Following the Moustakas process, the researcher listed and preliminarily grouped the statements through "horizontalization of the data." The horizons or statements from the participants that pertained to the challenges and intervention strategies of PE teachers in assessing students learning in the online modality were extracted from the transcript to be recorded separately (step 1). After horizontalizing the data, the reduction and elimination process began. First, invariant constituents (representing different themes) were grouped, forming core themes or structures of the experiences. Second, the invariant constituents were clustered and thematized (step 2). Taking the concept of textural descriptions by Moustakas, 1994, as cited in Eddles-Hirsch, 2015, using their own words the participants, were asked to describe their perspective on the understanding of challenges and intervention strategies of PE teachers in assessing students learning in the online modality (step 3). After the "textural descriptions" were done, the "composite textural descriptions" for each individual's perspective were formed. The invariant meanings and themes of each participant were put together to be shown as a whole (Moustakas, 1994). An outline of the experiences in the form of composite textural descriptions for each participant who took part in the study was produced from the individual textural descriptions (step 4). The final step united the composite textural and structural descriptions and constructed a mixed report encompassing the participants' experiences. This step represented the essences or invariant structures of PE teachers' challenges and intervention strategies in assessing students' learning in the online modality. Here, the purpose was to glimpse a previously unavailable world to the researcher by encouraging the use of epoche or bracketing, whereby the researcher could purposefully set aside outside prejudices and beliefs to grasp the picture of what was going on.

The themes emerging from this study were submitted to a member-checking method using the correspondence technique (Candela, 2019), in which each study participant was addressed personally to evaluate the consistency of the transcription and

interpretation to assure the data's rigor, validity, honesty, and trustworthiness (step 5).

3. Findings and Discussion

Analysis of students' learning outcomes surfaced the challenges and intervention strategies of PE teachers in assessing PE learning outcomes in the online modality.

3.1 Challenges of PE Teachers in Assessing Online Modality

Education has been faced with challenges because of the sudden shift in learning modality. Participants in this study described challenging experiences in assessing student learning that required interventions during their PE online classes. Challenges are grouped into three themes, namely: "challenges in viewing students' output," "challenges in trusting," and "challenges in monitoring students."

3.1.1 Challenges in Viewing Student Output

This refers to the difficulties faced by participants in viewing PE outputs online. This refers to their struggles with low quality of digital outputs submitted and incompatibility of videos submitted, issues as a result of sluggish internet connection, and brownout. Submitted digital output like pictures and videos are pixelated, blurred, and do not render, files are corrupted, and some files cannot be opened because of the kind of computers teachers are using and that of the students. Because of these, teachers cannot see and assess the actual demonstration of psychomotor skills by the students. Teachers may need to download the files using a different application to be able to watch the submitted files in their LMS.

Participants also mentioned that students are shy when it comes to showing their faces online, so they ask if they can turn off their cameras during online classes, which makes it hard to watch and assess formative assessments. Physical education is a subject that needs movements, and without participants being able to see the students during the formative assessment is a challenge.

An additional struggle emerged for participants in using the current technology, specifically using LMS. This is true for traditional teachers who are not adept at navigating computer software applications like LMS and the use of cameras. Some participants mentioned

asking for help from their child in navigating the cameras used in online classes.

The findings regarding the difficulty in viewing students' outputs are similar to those of [Aguinaldo, \(2021\)](#) who discussed the importance of being able to view student outputs in the online modality which enables teachers to effectively assess, support, and guide student learning. It promotes individualized instruction, informed decision-making, and the development of a collaborative and reflective learning environment. However, participants were challenged in evaluating individual activities through videos that have problems with incompatibility, low-quality outputs, and limitations of technology that constantly impede the participant's assessment of students' psychomotor skills. The learning mode heavily relies on videos, online assignments, and multimedia resources. However, without reliable technological equipment, students face difficulties in submitting high-quality work ([Bariu, 2020](#); [Daw-as & Magat, 2022](#)). Pixelated and low-quality videos fail to accurately convey understanding or showcase their efforts, posing challenges for PE teachers to assess performance accurately. The fluidity of the situation in online physical education poses challenges for teachers, particularly in assessing students' performance and progress. One significant difficulty is the limited ability to view students' output during online classes. Unlike traditional face-to-face sessions, online platforms cannot often capture and assess students' physical movements accurately. This limitation hinders teachers' ability to provide immediate feedback, track skill development, and tailor instruction effectively. The absence of direct observation impedes the holistic evaluation of students' motor skills, coordination, and technique. Addressing this challenge requires innovative solutions, such as leveraging video submissions, utilizing wearable technology to support video outputs, or exploring alternative assessment methods.

3.1.2 Challenges in trusting

This refers to the participants' feelings of doubt about the authenticity of student outputs during online PE classes. Doubt is the combination of the participants' suspicion, uncertainty, and reluctance to the authenticity of assessment results of students' outputs. The hesitations are due to the participants' reservations about the authenticity of the one who did the activities in online learning. Participants stated that they could not trust the result of written tasks done online due to the suspicious handwriting of students and avenues of

cheating and coaching, which are easily accessible to learners online. Participants also mentioned adult coaching during demonstrations of skill on the video output. They believe that the majority of the student's work had adult interventions.

Because of these challenges faced by participants, they are not confident that learning outcomes have been achieved. The struggle occurs for the teacher participants since they cannot make valid conclusions about whether students have learned and cannot identify the specific areas where a student struggles in the lesson because of these dubious outcomes.

With these experiences, there is no doubt that teachers are second-guessing the assessment findings; Participants admitted to feeling guilty for awarding high scores because they are the product of the parents' labor and that parents were learning online rather than the student.

The study's findings corroborate the study of Grijalva et al. (2006), which indicates that the challenge of assessing properly the students' online learning outcomes is because of major issues with plagiarism, impersonation/dishonesty, cheating, and academics. The validity, reliability, and fairness of assessments, which are fundamental assessment concepts, are immediately threatened by these concerns of such gravity (Menéndez-Varela & Gregori-Giralt, 2018; Munoz & Mackay, 2019; Tuah & Naing, 2021). Therefore, it is suggested that attention was needed to the requirement for trustworthy methods of administering assessment tools to students. This finding highlights the necessity of a more creative way of using authentic assessment in PE. Authentic assessment demonstrates an understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities. It requires to be conducted in real-life situations, and it gives students opportunities to demonstrate skills, knowledge, and competencies (Mintah, 2003), but because these are being conducted online, teachers should make sure that student output reflects their demonstration of learning outcomes. Instructions and guidelines should be creatively and carefully drafted to avoid cheating among students. Leveraging technology tools and learning management systems that allow for secure and monitored online assessments. These tools can include features like time limits, randomization of questions, or remote proctoring to ensure the integrity of the assessment process.

3.1.3 Challenges in Monitoring Students

This refers to the challenges in observing and checking the progress of learners because of passive learners during synchronous and asynchronous classes, this also includes unaccompanied students at home and unobserved value integration among students during online classes. Teacher participants in online classes typically give formative assessments. However, students are not participative during online classes as mentioned by the participants, and because of this, they cannot monitor students in person. Participants acknowledged that students in the online learning modality are passive no matter how the teachers encourage them to respond during online classes to be able to monitor their performance online.

Participants struggle when students cannot submit because there is no adult to assist with submissions of students' outputs. They acknowledged that parents influenced assisting students to work with their outputs. Also, participants acknowledged that it is a challenge when students are not motivated to submit and finish outputs on time due to parents being unable to help them because they are also working during the pandemic. With the struggle of participants to maintain students' attention and presence of mind, they communicate with the parents so they can help their children maintain alertness in online classes. Participants channel their encouragement among learners to their parents as they are a great help in monitoring the students at home. They expressed that it is crucial to have an accessible communication mode with parents since it enables open communication between them. The teacher will benefit from knowing what is happening with the class on and off camera. However, participants mentioned that they are also struggling to communicate with parents who are unreachable.

Monitoring values integration is difficult online due to limited physical interaction between the students and the participants. Participants could not claim that value integration is evident among the students since they did not play practical games. Participants stated that adherence to safety and motivation are specific values they could monitor and assess. However, some participants expressed that values integration of values like sportsmanship, camaraderie, and teamwork, claimed to be developed in PE activities, cannot be observed because of limited interaction. Furthermore, participants mentioned that students' attitudes during online classes are not a guarantee of their behavior offline.

By employing monitoring strategies in the online modality, teachers can maintain academic integrity, provide personalized support, promote engagement, facilitate timely intervention, and ensure the quality of online education. This study's finding corroborates with the study of [Beulah \(2020\)](#), which states the importance of teachers in monitoring learners' progress in the online learning modality, especially in accomplishing authentic assessments and learning competencies. Monitoring enables instructors to provide timely support and guidance to students. By tracking their progress and identifying areas of difficulty, instructors can offer personalized assistance, clarify concepts, and address any misconceptions, fostering a supportive learning environment. Regular monitoring allows for early intervention when students are struggling. By identifying signs of academic or emotional distress, instructors can intervene promptly, provide necessary resources, and offer remedial support to help students overcome challenges and succeed academically ([Sáiz-Manzanares et al., 2021](#)). To improve monitoring strategies of teachers in online learning it is important to implement regular check-ins or progress reports to monitor individual student progress. This can be done through brief surveys, one-on-one meetings, or progress-tracking tools, allowing teachers to identify struggling students early on and provide the necessary support.

3.2 Intervention Strategies in Addressing the Challenges Faced

Difficulties during the conduct of online learning during the pandemic have to be addressed to make sure learning outcomes are demonstrated by learners. Participants in this study described their intervention strategies for challenges in assessing learning outcomes in the online modality. This study surfaced two (2) themes namely: collaborating with parents and differentiating student requirements.

3.2.1 Collaborating with parents

This refers to establishing a partnership between teachers and parents or guardians to support and enhance a student's educational experience. It involves regular communication, sharing information, and working together to promote the academic, physical, and emotional development of the child. The collaboration can take various forms, such as parent-teacher conferences, email correspondence, phone calls, or parent involvement in school activities.

Participants had discussions with parents to deliberate situations involving their children. Participants mentioned TPCs (Teacher-Parent Conference) as their way of consulting parents about problems encountered by their children. Most participants also mentioned that general meetings and orientations are their avenues for communicating with parents indirectly about what to avoid in online classes, such as doing students' outputs and coaching answers. This serves as an intervention to the challenges in monitoring students online and challenges in trusting. Here participants always reiterate that parents should let their children be the ones doing the activities so they may learn on their own and just guide them if necessary. Surprisingly it was effective in lessening doubtful assessment results. It means that parents are important active agents in online learning.

Participants also voice out challenges they faced online with their administrators through conferences or meetings. These were conducted to clarify issues like doubts about the assessment result of the learners to come up with a collective decision. Participants consult their coordinators when facing a problem and identify solutions to the problem before implementing it. Similarly, they talk about how teachers should discuss things with the parents before actually talking with them.

This study corroborates the findings of the study conducted by [Alshalawi in 2019](#), which discussed that collaboration and consultation are important, especially in education. It is where clarifications, advice, and approval are discussed among colleagues. This shall ensure better implementation and outcome of things to be implemented. Effective consultation among teachers, parents, and school heads is critical in ensuring the success of online classes. In the remote learning environment, it is essential to have open communication channels to address the unique challenges that students may face. Collaboration among these stakeholders can help ensure that students receive the support they need to succeed academically, emotionally, and socially. They can also collaborate to create personalized learning plans that meet the specific needs of individual students. Simultaneous to the saying "No man is an island," it is especially true in this study, as open communication channels can facilitate the sharing of best practices, allowing PE teachers to learn from each other and improve their teaching methods. Ultimately, consultation among PE teachers, parents, and school heads can help to create a collaborative and supportive

learning environment that enables students to achieve their full potential in online classes.

3.2.2 Differentiating students' requirements

This is defined as modifying or changing something so that it fits, corresponds, conforms, adapts, and accommodates certain situations. This includes changing or modifying instructions for students to meet the standards or criteria indicated in the rubric to accommodate differentiated learners. To ease the concerns of both parents and students, instructions were adjusted to fit the online learning problems of students with medical conditions and limited materials to be used by both participants and students. Participants mentioned modifying or changing the instructions to address challenges in preparing assessment tools for differentiated learners. Participants also considered probable challenges that may arise in the online class, prompting them to make adjust their implementation of the rubrics. Giving considerations had always been for humanitarian reasons because of the situation caused by the pandemic. Therefore, the learning plan must be carefully planned to cater to the various situations and needs of students so that the learning outcomes are manifested by the students.

To accommodate students' submissions who lack editing abilities and technology that enables them to produce quality videos, participants mentioned accommodating them by accepting whatever they can turn in and making use of other applications to accept outputs that are not compatible with their LMS. This causes participants to adjust activities required to make it easier for the student and avoid giving students low scores because not all have the same quality equipment for online classes. Participants mentioned using other devices and applications when it comes to addressing challenges with incompatible videos. It can be realized that teacher participants are capable of addressing challenges that may come their way.

The sharing implied adjustments to accommodate students in the online modality and remove learning barriers in the classroom, providing every child with equal access to learning. These adjustments helped students be more at ease with online learning. In the same manner, participants were asked to broaden their understanding in assessing students learning outcomes in the online modality. Participants have no choice but to adjust to accommodate learners, even those with doubtful assessment results. Participants acknowledged that

teachers had become lenient in online classes. They put students' wellness before anything else to accommodate all without bias. Participants mentioned being understanding in dealing with assessment result issues as administrations advise them to understand the situation. This makes participants make adjustments on their own to at least lessen these situations and still accommodate all students.

This corroborates with the study of Tomlinson et al., (2003), which discussed that differentiating student activities in online learning is crucial to meet the diverse needs, abilities, and learning styles of students. Online classes require a different approach to instruction, communication, and engagement. Teachers must be adaptable to new technologies, digital tools, and online platforms to deliver engaging and interactive lessons. They must be flexible in modifying their teaching strategies to suit the online context, accommodating diverse learning styles, and addressing individual student needs. Differentiating activities also involves creating a supportive and inclusive virtual classroom environment that fosters active participation and collaboration. Table 1 presents the study's findings, which highlight three main themes of challenges identified by participants. Additionally, two overarching themes of strategies employed by participants to address these challenges are outlined.

Table 1. Challenges experienced and Strategies employed by the participants

Challenges	Intervention
1. Challenges in viewing student output	1. Collaborating with parents
2. Challenges in trusting	2. Differentiating students' requirements
3. Challenges in monitoring students	

4. Conclusion

Implementing online classes is a new experience for all participants, leading to challenges that must be overcome to conduct online classes and eventually assess students' learning outcomes effectively. From the semi-structured individual interviews conducted with the participants, some challenges emerged in assessing students' learning outcomes in the online modality. One significant finding is the lack of trust of the participants in the assessment

results submitted by the students. Hence, there is a need for clear expectations and guidelines on activities given. Communicating the expectations, requirements, and guidelines for each assignment or task, is a way to provide them with detailed instructions regarding the desired outcomes of the tasks including formatting guidelines, and deadlines. This clarity helps students understand what is expected of them and reduces the likelihood of misunderstandings or submitting incomplete work.

With the challenges faced, participants have overcome them through the intervention strategies that emerged. The themes in intervention revealed that PE teachers are resilient and prepared to solve any challenges encountered in the online learning modality because they want to ensure that their students can still learn. This underscores the remarkable role of PE teachers even in the online modality. The ability to accept change emerged as a pivotal factor in navigating the challenges of the ever-changing educational landscape. Participants embraced the changes in the online modality; although, it was a new experience for all of them. They modified their instructional practices based on evolving circumstances which effectively engaged students and facilitated meaningful learning experiences. Participants have developed further their ability to embrace new challenges in assessing students' learning, adjust pedagogical approaches, and cater to diverse student needs. Hence, the importance of providing teachers with support, resources, and professional development opportunities to enhance their knowledge in navigating through online classes, especially in the area of assessment is imperative. By prioritizing the support given, PE teachers can create flexible learning environments that empower students to thrive and succeed in an ever-evolving educational landscape.

The findings of the study described the experiences of PE teachers in assessing students learning outcomes in the online mode. These findings offered a knowledge-based background for planning and implementing assessment practices in PE in the online learning modality. The findings in the intervention strategies provided PE teachers with ideas that can help them in a more successful implementation of assessment practices online.

5. Recommendation

The study revealed that PE teachers were faced with challenges in assessing learning outcomes in PE

and to overcome it, intervention strategies were implemented. This study recommends that educational institutions prioritize a systematized approach to the challenges or intervention strategies of the PE teachers and at the same time strengthen the students' learning and support the intervention implemented by PE teachers.

The fluidity of situations such as but not limited to the pandemic emphasized the need for continuing professional development among PE teachers. The situation also highlighted the need to encourage teachers to explore innovative assessment practices in online learning in PE.

This study focuses on laboratory schools that provided online physical education (PE) during the pandemic, utilizing qualitative methodologies. As a result, the findings are limited to this specific context. Future research could enhance the study by including a larger number of participants and expanding the geographical scope. The limitations identified in this study highlight the need for further investigation into the effectiveness of intervention strategies employed by PE teachers and a deeper understanding of how these interventions operate.

Limitations of this study include the small sample size, which may restrict the generalizability of findings to broader populations. With few participants, there's a risk of limited diversity in perspectives and experiences, potentially skewing results. Further research with larger and more diverse samples is warranted to corroborate and extend these findings reliably.

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No additional materials were added to this study.

Author's contribution & Statement

All authors contributed to the study, although the authors were arranged based on their contributions.

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The authors declare that there was no conflict of interest.

Does this article pass screening for similarity?

Yes

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