



# European Journal of Educational Research

Volume 13, Issue 1, 297 - 309.

ISSN: 2165-8714

<https://www.eu-jer.com/>

## Qualitative Case Study of a Virtual Education Program: Challenges and Future Directions

Marshal C. Defensor\* 

Prince Sultan University, SAUDI ARABIA

Ruby I. Defensor 

Prince Sultan University, SAUDI ARABIA

Christopher Yap Wright 

University of the Philippines,  
PHILIPPINES

Received: May 17, 2023 ▪ Revised: July 6, 2023 ▪ Accepted: August 4, 2023

**Abstract:** Existing studies have explored the repercussions of school closures. The researchers were interested in exploring the virtual health and physical education program (VHPEP) by identifying existing practices, drawing a more profound understanding of teachers' experiences, identifying parents' roles played in support of their children and teachers, and finally recommending inputs for a better VHPEP. Using a criterion-based selection, twenty participants, encompassing ten teachers and ten parents, were recruited for this study. The study employed a qualitative case study design. The results found that implementing VHPEP involved various issues and challenges in class management, including limited student interaction, difficulty sustaining interest, ineffective assessment methods, and instances of student cheating. These challenges prompted teachers to shift their pedagogical practices, focusing on making adjustments and developing new strategies to ensure student participation. Additionally, the study found that teachers experienced anxieties and realized the importance of self-reflection, including the importance of implementing measures to mitigate anxieties, gaining new perspectives on teaching, and grappling with the unique difficulties and opportunities of the virtual teaching modality. This study also shed light on the diverse roles that parents played in supporting their children and collaborating with teachers. Lastly, the study identified crucial aspects for improving VHPEP. While this study gives much attention to valuable insights provided by teachers and parents as collaborative partners for a quality VHPEP, caution should be exercised because the research is based on specific contexts and individual experiences.

**Keywords:** Parent support, pedagogical practice, teacher experience, virtual health and physical education program.

**To cite this article:** Defensor, M. C., Defensor, R. I., & Wright, C. Y. (2024). Qualitative case study of a virtual education program: Challenges and future directions. *European Journal of Educational Research*, 13(1), 297-309. <https://doi.org/10.12973/eu-jer.13.1.297>

### Introduction

Educational institutions have recognized the health and physical education program (HPEP) as one of the most highly valuable academic disciplines (Defensor, 2022). HPEP plays a significant role in promoting physical fitness, fostering healthy lifestyles, and enhancing the overall well-being of students. It involves students in a wide range of dynamic activities, such as sports, physical exercises, and human movement or dances. These activities are often designed to encourage group participation, promote cooperation, and enhance prosocial behavior (Di Bartolomeo & Papa, 2019). Through a well-planned curriculum, HPEP provides students with vital opportunities to remain active, stay in shape, and establish healthy routines while attending to their academic responsibilities at school. In 2019, the outbreak of COVID-19 led to school closures. As a result, the implementation of in-person HPEP was suspended, prompting a shift from traditional in-person teaching and learning modalities to a virtual setup (Blain et al., 2022; Mishra et al., 2021; Webster et al., 2021). This response seems necessary for all educational institutions during these pressing times.

Existing studies have explored the implications of virtual HPEP (VHPEP). It has been found that members of the academic community, such as students, are significantly less physically active (Pavlovic et al., 2021). Additionally, Chu and Li (2022) showed that male students experienced a greater decrease in vigorous physical activity compared to female students. The HPEP teachers were also found to be less effective in improving the motor skill acquisition and physical activity levels of their students (Chan et al., 2021). These teachers also experienced anxieties when the shift to virtual modality occurred (Alshammari, 2022). While studies on students' experiences in VHPEP are well documented, much remains unknown about the experiences of teachers in VHPEP.

---

#### \* Corresponding author:

Marshal C. Defensor, Prince Sultan University, Riyadh 12435, Saudi Arabia. ✉ [mdefensor@psu.edu.sa](mailto:mdefensor@psu.edu.sa)



Given the drawbacks associated with the conduct of the VHPEP, there are growing demands to study how it is held and whether it effectively conveys the values of the program (Jeong & So, 2020). It is also important to explore teachers' experiences during their transition to online teaching (González et al., 2023) and parents' roles in supporting their children's teachers during the transition (Coulter et al., 2023). Although an experience may be unique to each situation, documenting it remains crucial as it can potentially inform the future of VHPEP (Centeio et al., 2021).

It must be mentioned that there is also a methodological gap in this area, where oftentimes studies are conducted using a quantitative research design. Existing research on HPEP has primarily used such a design, leaning on numerical data to study HPEP teachers' experiences, successes, and struggles while teaching online (Centeio et al., 2021), their perceived significance of design features for virtual teaching (D'Agostino et al., 2021), and their experiences in remote instruction during the pandemic (Mercier et al., 2021). The said studies limitedly delved into the experiences and perspectives of the participants in greater depth. The present paper argues that a context-experience-based study can be better explored through qualitative research design as it offers researchers the opportunity to explore and acquire deeper insights into real-world problems (Moser & Korstjens, 2017) and ask open-ended questions whose answers cannot be easily quantified (Cleland, 2017). A study on teaching practices and parents' roles in supporting the implementation of the VHPEP has not given much attention to research using qualitative inquiry. This type of study is important as it can explain practices and processes (Foley & Timonen, 2015).

Consequently, the researchers aimed to fill in existing gaps and provide input for an improved VHPEP by providing answers to the following questions:

1. What are the teaching practices implemented during the virtual HPEP?
2. What are the experiences of teachers in implementing such a program?
3. What roles do parents play to support their children's teachers in implementing the virtual program?

## Literature Review

### *Health and Physical Education Program*

Various studies conducted over the years have consistently highlighted the significance of the HPEP for students. One such study by Lynch and Soukup (2016) argued that HPEP is an academic discipline that encompasses all dimensions of health. In a recent work by Defensor (2022), it was demonstrated how HPEP could play a crucial role in defining a higher education institution. The study, which surveyed 250 university alumni and 10 faculty members, revealed that most respondents had positively evaluated the HPEP at Prince Sultan University before the pandemic struck. This valuable data holds immense importance for the present study because Defensor's research sheds light on the qualifications and effectiveness of HPEP in the traditional classroom setting within the same university. According to the study results, alumni expressed a high level of satisfaction with the educational services of HPEP (mean = 4.12,  $SD = 0.96$ ), the learning environment (mean = 4.26,  $SD = 0.88$ ), and the facilities (mean = 4.19,  $SD = 0.92$ ). Similarly, students reported a high level of satisfaction regarding their skill acquisition (mean = 3.80,  $SD = 1.16$ ), the adequacy of the HPEP program (mean = 4.08,  $SD = 0.08$ ), and its relevance (mean = 4.11,  $SD = 0.07$ ). However, while the numerical data painted a favorable picture of the program, the qualitative data provided valuable insights. It highlighted certain concerns that need attention, including the need for consistent educational services, an enhanced research culture, teaching that goes beyond the contents of textbooks, a stronger focus on health and fitness, and the maintenance of facilities. These findings indicate that although HPEP is a good program, continuous development is necessary. It is worth noting that this study has propelled the current research team to delve into the quality of HPEP when delivered in a virtual modality. The present study sought to explore teaching practices, teachers' experiences, parent roles, and potential directions for the VHPEP. By exploring this aspect, this study also aims to contribute to the ongoing development of VHPEP and enhance its impact on teachers' and students' experiences. A study conducted by Jeong and So (2020) examined the difficulties encountered by physical education teachers when implementing virtual classes. Their research employed a qualitative case study design with phenomenological procedures to gather insights from participants. The study identified several difficulties: first, the monotony of classes due to limited environmental conditions and the restricted educational content for PE; second, the nationwide reliance on trial-and-error methods due to a lack of expertise in virtual PE instruction; and third, the scarcity of evaluation guidelines provided by the Korea Ministry of Education. Based on these concerns, the study proposed changes in learning strategies to better understand the unique characteristics of online physical education and effectively convey the value of PE. The significance of teacher collaboration in addressing the challenges of teaching HPEP virtually was highlighted. However, it is essential to acknowledge that the current emphasis on collaboration among teachers may lack scope, as it primarily focuses on teachers alone and does not take into account the vital partnership between teachers and parents, particularly during these difficult times. Such a partnership could play a crucial role in enhancing virtual education for students. In addition, the study recommended adopting less formal evaluation processes to encourage active student participation. The implications of the said study for the present study are twofold: firstly, it encourages present researchers to give careful consideration to qualitative research in exploring teachers' experiences and parents' roles, and secondly, it propels them to explore successful existing practices for VHPEP instruction.

*Teachers and Students' Experiences in Virtual Teaching Modality*

Alshammari conducted a study in 2022 on the effectiveness of online teaching in physical education during COVID-19 school closures. The study revealed four major findings. Firstly, the teachers reported that online PE lessons were not effective in improving students' motor skill acquisition and physical education activity levels. It was due to students' lack of motivation or interest and limited interpersonal interactions. Secondly, many teachers have experienced difficulties in virtual teaching, especially in ensuring interpersonal interactions and retaining learning motivation or interest. Thirdly, most teachers considered teaching PE online stressful due to the additional workload. And finally, many teachers suggested that schools or the government should provide online teaching kits, including online lesson plans or activity recommendations. This study is relevant to the present study, as the latter would attempt to explore whether teachers' experiences in VHPEP have changed, considering the different contexts and places of the participants. Mercier et al. (2021) conducted an essential study on the physical education teachers' experiences with remote instruction during the initial phase of the pandemic. Using a quantitative approach and surveying 4,362 PE teachers from 50 American states, the data culled from the field revealed that teachers indicated that 51% of students submitted their learning tasks, 37% utilized video instruction, and 20% found teaching remotely less effective. Additionally, 32% of teachers emphasized health-related fitness and physical activity value/enjoyment in student goals (43% agreed). Teachers from the South had the lowest percentages agreeing that students should have access to technology (43%) and be assigned homework (43%). The least effective teachers were those in rural areas, with 37% reporting limited access to technology (24% agreed). Secondary school teachers reported the highest proportion of required assignments (84% agreed). Based on teachers' responses, remote PE teaching faces specific challenges in terms of fairness and success. This study confirmed the importance of online setup during the first few weeks of the pandemic. Researchers in the present study considered this the point of inquiry for exploring teachers' experiences of the online setup. Not only the teachers' experiences matter in the implementation of a VHPEP, but also the students' experiences. It was the same thought that fueled the study of Pavlovic et al. (2021), which focused on examining the maintenance of physical education and physical activity during distance learning time, determining resources for delivering physical education curricula, and understanding teachers' challenges. The majority of the 2440 respondents (69.7%) came from a city, attended an elementary or middle school (72.3%), and had Title 1 status (60.4%), a sign of poor socioeconomic level. During the COVID-19 epidemic, most schools were closed (97.8 percent) and only 2.8 percent of the closed schools had no prior PE requirements. After the epidemic, that number rose to 21 percent. 7.7% of schools in those that stayed open during the pandemic had no prior PE requirements, and this number rose to 60.5 percent. Intriguingly, 79 percent of respondents said that during the shutdown, pupils either engaged in "much less" or "slightly less" physical activity. The most frequently cited challenges faced by closed schools involved students' access to online education, communication between teachers and students, and arrangements for teachers to work remotely. This study, however, limitedly investigated participants' experiences in greater depth.

**Methodology***Research Design*

The entire study was guided by the principles of the qualitative case study proposed by Schwandt (2015). Throughout the research, great importance was placed on embracing a qualitative research design, with researchers considering the following principles: Firstly, the study leaned on the interpretive nature of the qualitative study and case study methodology. By doing so, the researchers actively engaged with teachers and parents, eliciting their personal experiences through in-depth interviews. Secondly, a strong emphasis was placed on the in-depth exploration of qualitative data, where meanings were derived and interpreted based on participants' contexts. Equally significant was the researchers' recognition of the role played by reflexivity and subjectivity in shaping both the research process and its outcomes. To achieve this, the researchers conscientiously reflected upon their subjectivities, biases, and assumptions, considering measures to recognize and bracket them. Thirdly, this study underscored the importance of incorporating multiple perspectives within the framework of a single case study design. By considering the viewpoints of various participants, the researchers gained access to the core of the study, thereby cultivating a profound understanding of the phenomenon. The study utilized the principles of emergent design, which enabled the researchers to be adaptable and flexible throughout the research process. This iterative and dynamic approach was driven by emerging insights from both the researchers and the participants. It is worth noting that the researchers prioritized ethical considerations, ensuring that this study adhered to the principles of informed consent, confidentiality, and the protection of participants' rights and well-being at all stages of the research process. Figure 1 shows the intra-paradigm case study design of this research.

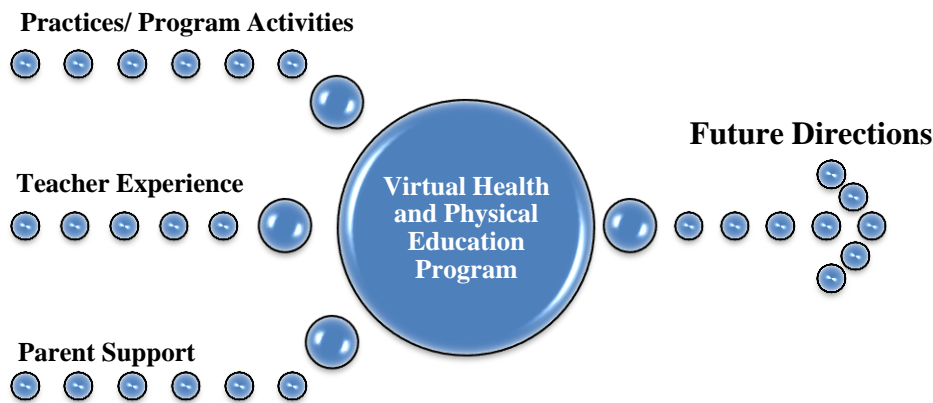


Figure 1. Intra-Paradigm Design of the Study

#### Participants and Selection Criteria

Out of thirty potential research participants, only twenty were able to commit to participating and willingly attend the interview sessions. The researchers made sure to follow strict protocols to ensure that participants were well-informed and gave their consent to take part in the study. The selection criteria for participants were carefully set. First, they had to be experienced teachers who taught the VHPEP when Prince Sultan University in the Kingdom of Saudi Arabia shifted to a virtual teaching-learning modality, specifically, from March 2020 to May 2021. This measure ensures that the chosen teachers have firsthand knowledge and experience of the program. Second, the selected teacher participants had to demonstrate an in-depth understanding of the VHPEP curriculum. This was an important aspect to consider for potential valuable inputs to this research. Finally, parent participants must have children officially enrolled at Prince Sultan University during the implementation of the VHPEP.

#### Interview Protocol

The researchers employed an expert-validated interview protocol for technology-mediated in-depth interviews. The interview guide was developed through a literature review and with the assistance of an instrumentation specialist. It was used to elicit perceptual data that would later establish the contextual details of the challenges encountered during the VHPEP implementation. In addition, a demographic profile sheet was administered. Before implementation, three experts in the fields of education research, instrumentation, and qualitative inquiry were invited to validate the instrument. The interview protocol received a mean score of 4.89 ( $SD=0.23$ ) with an interpretation of *very acceptable*. It received a Fleiss Kappa value of 0.707 with an interpretation of substantial agreement among expert validators.

#### Data Collection Procedures

The study began with a basic review of the syllabi or program outlines of the VHPEP. It encompasses two (2) major components: conceptual/theoretical foundations and training exercises/practices. The VHPEP is characterized by using modularized units that can be easily integrated into teaching, allowing greater flexibility in student activities and exercises. It aims to promote a holistic approach to physical fitness and health, focusing on developing students' physical, mental, health, and social well-being. It is divided into three primary levels: basic, intermediate, and advanced. There are two main components of HPEP. The first component, "conceptual/theoretical foundation," focuses on discussions related to the conceptual and theoretical understanding of HPEP. It includes topics such as physical activity, fitness, exercises, sports, human movements, and dance, all of which contribute to overall health. The second component, "training exercises/practices," covers a wide range of exercises and physical activities. While this component is more practical, involving various sports and exercises that students can engage in as part of their HPEP curriculum, it is delivered through online instruction. Students are required to record their activities/performances in the comfort of their homes due to school closures.

After the review, the researchers developed questions related to the pedagogical practices and learning/teaching activities covered and implemented within the VHPEP. Subsequently, they promptly created interview protocols and sought the assistance of an instrumentation specialist to ensure their quality. Experts were also invited to validate them. While the validation process was ongoing, the researchers had already identified thirty potential research participants. Since the VHPEP was already implemented, the researchers had no difficulty recruiting potential participants. From the time the participants informally agreed to participate in our study, the researchers had already formally sent them invitation letters and consent forms. The researchers then decided on a particular date and time for the interview sessions. In case one party was unavailable, they adjusted to accommodate the needs. Before the interview, the researchers re-read the consent form and reiterated their rights as research participants, including a background of the

study, potential benefits, and the right to withdraw their participation from the study. During the interview, participants were encouraged to lead the discussion by allowing them to narrate their experiences and share their challenges and practices when the VHPEP was implemented. Both the teachers and parents received questions that were contextualized in their roles. They were encouraged to take time to share substantially during the process. In cases when they misunderstood the questions, supplementary or simplified questions were given to assist them.

### Data Analysis

The researchers analyzed each recorded account and compared it through the constant comparative method. Qualitative accounts were closely examined and manually compared to reveal patterns and derive categorical concepts using open and pattern coding (Saldaña, 2013). The process broke down, sorted, and sifted qualitative accounts to show common concepts (focused codes), shared difficulties, practices, and insights on the future of VHPEP.

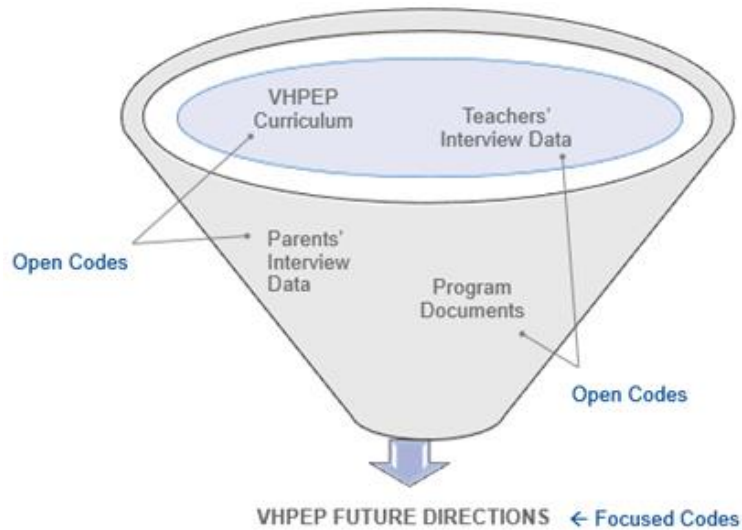


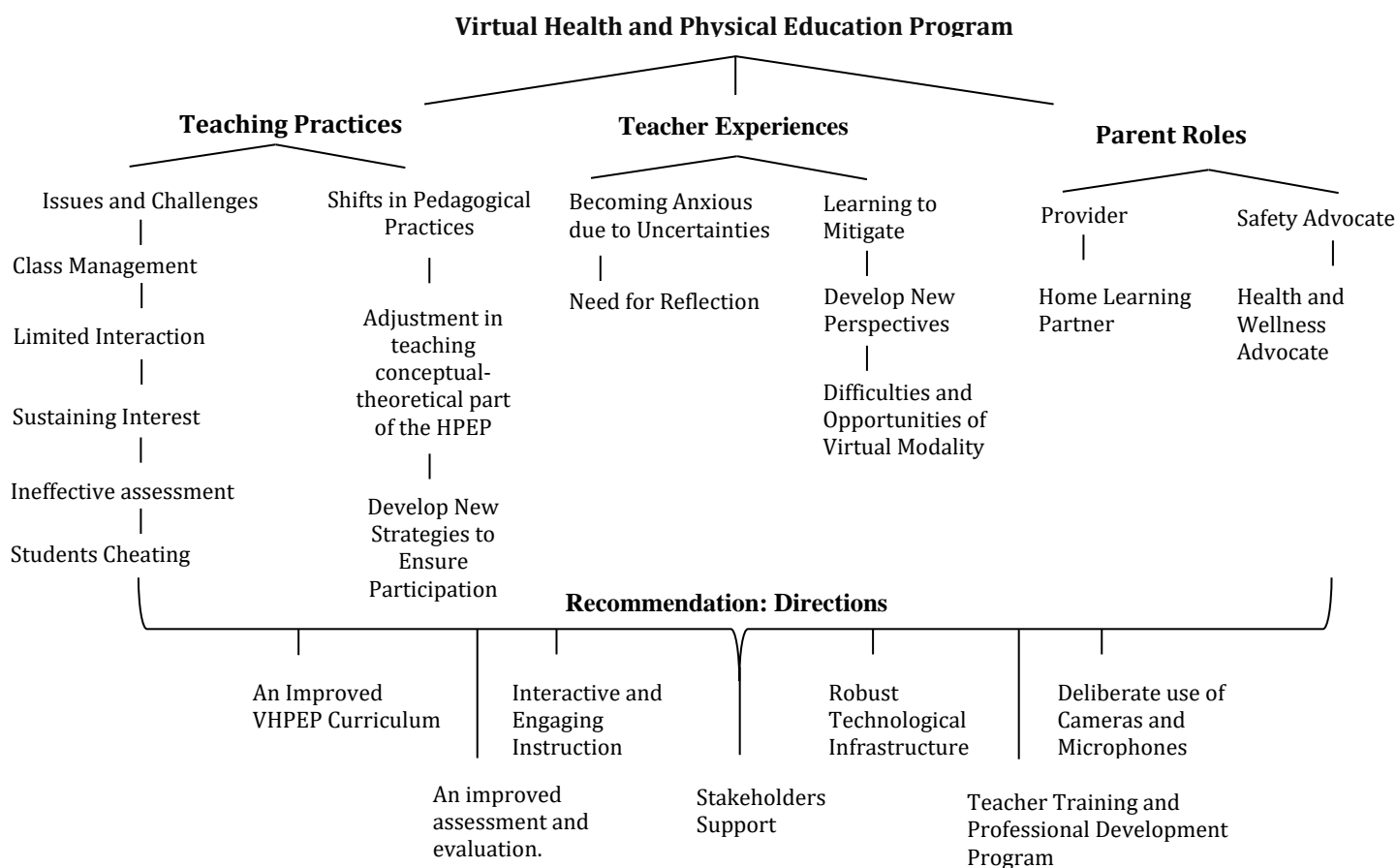
Figure 2. Data Analysis

As shown in Figure 2, the qualitative accounts (interviews and documents) culled from the participants were transcribed, coded, and examined. The process was guided by the coding procedures (Saldaña, 2013). Firstly, the researchers familiarized themselves with the accounts by re-reading them to gain a holistic understanding of the materials. Secondly, they identified and labeled concepts that were generated from the transcripts. They are descriptive to capture the meaning. After the initial coding, the researchers established connections between codes and organized them into categories. This process created a structured coding framework. Finally, they focused on the core category to generate the themes that best represented the main ideas of this study.

It must be stated that this study does not intend to generalize the results, covering all teachers' and parents' experiences of the virtual program. It, however, acknowledges the nuances of the data that thrive between them.

### Results

Data were closely examined and manually compared to reveal patterns and derive categorical concepts using open and pattern coding (Saldaña, 2013). It is from this process that the themes were generated and defined. The results from the collected experience-context-based accounts are visualized in Figure 3.



*Figure 3. Data Findings Visualization*

#### *Teaching practices implemented during the VHPEP*

The teaching practices implemented by teacher participants (TP) during the VHPEP involved two major concepts: the issues and challenges the VHPEP brought to the fore and the shifts in pedagogical practices that were made in response to such challenges.

Firstly, in terms of class management, the teachers had to be consistent in reminding the students to always be ethical. Sharing the sentiments, TP01 argued that “comparing it to the pre-pandemic, students were easy to manage and supervise.” This statement was agreed upon by another participant, who stated, “We were challenged especially on how we supervise our students, reminding them to always behave ethically online” (TP04). Another teacher seconded this answer with a statement saying, “Teaching students in HPEP was not as problematic as it was when VHPEP was implemented” (TP05). The challenges in managing a class in a virtual setup were believed to be due to the sense of being impersonal, unlike during in-person teaching, when the students physically see their teachers and are often conscious of their actions and behaviors in class. Secondly, in terms of student interaction, the teachers considered it a challenge and took steps to make the VHPEP engaging. Three teachers shared that “Our experiences were defined by the challenges we met in VHPEP, especially whenever we observed that our students became less active in an online setting than in on-campus classes. They were not interacting that much” (TPs 01, 03, 05). It is, therefore, a problem to sustain students’ interest in the class. TP01 further shared that “it was indeed a challenge to sustain the interest of students and ensure that they were learning virtually. We always asked questions to engage them, although many did not answer.” Whether the students found virtual physical education learning boring or tiring was not further elaborated by the teachers. Another practice, albeit considered ineffective, was assessing students online. For instance, TP08 argued that “many issues exist in assessing students’ knowledge through online exams.” Complementing this statement, TP02 said, “While the online tools allow us to assess student’s learning in a novel way, I believe that they remain limited in their ability to capture the essence of assessment, especially in a skill-competency-based discipline like PE.” This issue of effective assessment resulted in another issue, appearing like a domino-effect chain reaction. In fact, TP07 argued that “the online exams were not working properly as the possibilities for students to cheat are vast.” It was even vividly described, saying, “As you know, when students are at home, they have convenience and luxury within reach. Many even cheated on recording their physical fitness activities, and parents even intervened” (TP09). The inability to check how cheating

occurred was due, arguably, to a cultural practice of not enabling students' cameras. This observation was further observed by TP06, who said, "The options for cheating during the exams were higher. It happened when the cameras were off. It was very problematic to require students to enable their cameras all the time. Although we reminded them to turn on their cameras during the class, it was not possible to keep cameras on all the time." TP04 attempted to explain the situation, considering it a cultural belief that not only increases the possibility of cheating but also results in other issues: "Students, especially females, are careful and somehow restricted from showing their faces and hair online. This is concerning their cultural beliefs. In a way, it heightens the impersonality of the VHPEP. Learning without seeing the faces of your fellow students and teachers becomes impersonal. There is arguably no sense of communal understanding, and it is more difficult to gauge whether students are understanding what you are saying." Concerning whether the student did not fully enable their cameras throughout, TP03 explained that "students approximately enabled their cameras for 5 minutes only during VHPEP. Afterward, their cameras are off until the class ends." Additionally, the decline in students' interest resulted in absences. T10 observed that "As the students' interest declined, the student population declined as well. Both the practical and theoretical HPEP classes required teachers to post interactive pedagogic messages to engage students and sustain their interest in the class." TP05 added, "Some students attended the class for mere attendance and left immediately. They did not continue with you and mostly turned off their cameras after a couple of minutes. Teachers are surprised whenever they check the attendance at the end. They would find that only 50% of the original 90% of students who attended the class remained."

With these foregoing issues and challenges, VHPEP teachers shifted their pedagogical practices. These shifts primarily involved adjustment in teaching and the development of new strategies. The practice is a deliberate and focused effort among VHPEP teachers to ensure the quality implementation of the program. TP01 shared that, "we adjusted the HPEP curriculum and teaching methods, especially the theoretical part of the discipline." There was a curriculum change that happened. TP04 said that "a change involved making the HPEP curriculum more extended and lengthened to respond to the need for a transition to a virtual teaching and learning setup." TP03, in support, said "We adjusted the course syllabus and specification. So, automatically when used in a new method, you should adjust the course syllabus. We, therefore, adjusted the course syllabus." A substantial part of adjusting the course syllabus includes the adjustment of teaching and strategies. Almost all teachers agreed that they changed the way they teach HPEP subjects. TP02 shared that "At first, I was a teacher-discussion-centered type of teacher. I did basic and mere HPEP lectures. However, as we attended many webinars on educational technology, innovative teaching practices, and strategies, we all revised and adjusted the way we teach. There was a curriculum review, embedding HPEP topics in various technologies." Similarly, TP08 traced back and narrated her prior experiences by saying, "During pre-pandemic, students had fewer problems in the theoretical part of the subject. Now that we transitioned to virtual, we added some more topics to the HPEP for the students to acquire more substantial conceptual-theoretical knowledge on the vital role and importance of HPEP." In addition, the adjustment included developing new strategies to address the need to sustain students' interest in their VHPEP. A seasoned faculty member shared that providing a checkpoint for learning helped a lot to ensure students' participation: "I always check students' participation at the beginning of the class. I provided them with opportunities to actively participate in class, especially when a new topic was introduced. In this way, it informs me of the status of my class in a particular class period." Personal reflections worked well as a strategy to assist teachers in VHPEP. TP02 disclosed this practice by stating, "I always contemplate and ask myself how I could improve my teaching of VHPEP and become more effective. So, I always check the topics and the appropriate types of technology-integrated learning activities to do. For instance, in teaching sportswear, how can you teach sports on an online platform through videos or just by looking at the monitor? That is the hardest part of teaching HPEP online. How will you monitor the physical development of your students? One of our teachers did the video one-on-one. However, we were restricted from doing video presentations due to cultural differences, so we did one-on-one practice in the breakout classroom. We made adjustments while ensuring the privacy and protection of children's rights and well-being." Overall, while VHPEP posed issues and challenges in teaching practices, it also required teachers to address these challenges by shifting and adjusting their pedagogy.

#### *Experiences of Teachers in Implementing the VHPEP*

The VHPEP implementation had an impact on teachers' experiences. Few of the teacher participants shared the same anxiety about the implementation of the VHPEP. TP02 remembered that "I became anxious about implementing HPEP virtually because I did not know yet what to do. Imagine face-to-face teaching and learning shifting into a virtual setup, and no one was trained for the online platform. That worried me at first. What should I do? What was I going to teach? How could I conduct HPEP virtually? These questions worried me so much." In response to the same question, TP09 claimed "Although I had anxiety during the implementation, I think being an HPEP teacher necessitates being proactive. We don't focus too much on the stress/stressors but face the uncertainties there are while being more responsible and flexible in pressing situations. Hence, I got on track easily. I did what I needed to be done at that time." When asked to elaborate more on actions, TP09 continued, saying, "During the VHPEP implementation, while I became anxious, I did stay like that for a long time. Instead, I strived to overcome it. I tried to become a more creative teacher. I tried and checked all possible ways of assisting my students to become more engaged." All teachers stressed the importance of self-reflection and knowing and understanding their strengths and weaknesses in the VHPEP implementation. In being

reflective, teachers shared, “We were able to identify the causes of our anxiety, which were uncertainties of time and situation. We also found what we were lacking at that time” (other teachers nodding, agreeing).

During the time that teachers willingly shared their challenging experiences as they had anxieties about the implementation, they were about the actions they took. It was said that they were able to learn how to mitigate their anxieties, develop new perspectives, and realize that the virtual medium offered both difficulties and opportunities. TP09 stated, “To better respond to my situation and to respond well to the VHPEP implementation, I attended various webinars about technology integration and innovative teaching strategies for online setup.” TP02 seconded, saying, “VHPEP is very challenging. As a PE teacher, I enjoyed it, but it was time-consuming and very tiring. One concern I had then was how to teach my students well, especially when they were new to the technology that I was using. It was tiring and consumed my time because I needed to acquaint them with the technology used in class. I went beyond my limits and learned how to manage technology, so I can assist my students well.” This answer was supported and elaborated by TP01, who said, “We were educated about the new teaching and learning platforms and new online options.” The Teaching and Learning Center of Prince Sultan University provided us with very good support during the implementation of the VHPEP. With the support we have received, it allows us to become effective. We were given practical and effective training.” It was surprising to know that, among other similarities, teachers had the opportunity to develop new perspectives. TP08 said “To manage our students well, we needed to change our perspective about them. We must know them well. Check their profiles, know their academic needs, even learning styles, and most importantly, know their technological competence. Once you have gained a deeper understanding of them, redesign the curriculum according to their profiles and the kinds of teaching-learning modalities you are using. Set the activities straight according to the needs of our students, be it virtual or in-person.” Similarly, TP02 stated “To ensure students’ engagement and participation, I changed my perspective on the virtual modality. I knew it would take time and effort, but I just embraced them. I think that was the best decision. With that, I was able to introduce the jam board activity to my students. They enjoyed it, and I believed that if students participated 100%, it meant I was successful in teaching them and integrating technology.” TP06 narrates “As I changed my perspectives, I also changed the way I teach. I prepared HPEP topic slides using MS PowerPoint. I also prepared video tutorials to show them the skills, for example, volleyball or basketball skills, that they must learn. I gave them the theoretical concept of the activity, like history and other information, through visual means. To involve the students during the course, I asked them to do the same, which was to prepare some slides or some videos, for example, in table tennis. So, they were able to assimilate the skills and their details. They were even asked to share their work with their colleagues. So, when they were asked to do research, they were able to use technology. So, I presented myself and my teaching using PowerPoint slides, videos, and multimedia. In a way, I embraced the need for being interactive, which needed a change of perspective first.” Aside from these, the way teachers assessed learning was changed as well, stating, “We adjusted to improve the way we assess our students. We shifted from traditional pen and paper to online examinations. This is new to us because, during the pre-pandemic period, we did not use online tools as platforms for assessing learning outcomes. We view this as a positive effect on how we define assessment” TP01. Finally, TP01 encapsulated what other teachers had experienced: “We were able to see the value of technology. We were able to use Google Meet for online meetings. We also used the Moodle system for clear communications about learning tasks, study contents, and other pertinent information regarding a potential examination.”

In terms of defining their understanding of virtual modality, many teachers saw both the value and the difficulties of using it. TP02 and TP05 contended that “The virtual teaching and learning platforms are useful for me; however, I must say that they are also limited. For example, teachers could not identify whether the answers were raw and students made, without the intervention of any cheating mechanism or external support” (TP02). However, despite its limitations, TP05 said, “I must agree that they are useful and can provide a challenging experience to students. For example, test items can be shuffled, time-based, and personalized to a specific student or group of students. “Consequently, the virtual tools are useful even up until now, when students come back to in-person reporting” (TP05). All teachers agreed that “There are great opportunities and difficulties that HPEP can offer if implemented through virtual setup.” All agreed when TP07 shared that “A very important lesson I learned during the VHPEP implementation was the importance of learning continuously, without limits. The VHPEP proves that learning is a continuous and lifetime process. It’s difficult to gauge the extent of what you know, especially during trying times like the need for virtual teaching. So, we need to keep abreast of new trends and pedagogical innovations. We need to be informed about the new trends in teaching Health and Physical Education and research.” VHPEP was even defined as “favorable for teachers and students” (TP08) since “the platforms are easy for users. They have some tools to check for cheating during exams and provide good-quality exams. But also, when the students are at their homes, it’s limited” (TP10).

#### *Parent Roles to Support Their Children’s Teachers in Implementing the VHPEP*

In implementing the VHPEP, the teachers all agreed that parents had supported not only their children but also their teachers. Supporting their children requires parents to carry out various roles. The parents took on the role of being the providers of the e-learning needs of their children. TP01, who worked with parents to ensure their children coped with the challenges, shared that “I have to say that our student’s parents were very supportive because, during the first few days and weeks of the VHPEP, they supported their children by providing them with functional headphones, laptops, and a good internet connection.” Additionally, “Parents showed their support to their children’s teachers as they provided



technical assistance to their children during the VHPEP implementation." As you know, everything is limited online, not only the gadgets used but even the skills of the students. We are very thankful that parents are there to assist their children when technology-related concerns occur." When Parent Participants (PP) were interviewed, more roles were defined. As a provider, PPs 02, 06, 08, and 09, agreed to what PP01 shared, "When we learned that VHPEP would be implemented in March 2020, we already knew that our children need our full support. We never thought that responding to their needs, such as providing equipment and devices for our children, would, in a way, help their teachers. We just felt that the best thing to do is to provide our children with the devices they need to attend to their academic needs." It should be noted, however, that being a provider was not the only role parents played during the implementation of the VHPEP. Being a motivator was also identified and linked to them. PP03 and PP04 said "We celebrate our children's milestones in their VHPEP. For all the activities they successfully passed, tests they overcame, and satisfactory grades they received, we praised their laurels and achievements. The same thing we did whenever they failed in an activity encouraged them and reminded them how important physical fitness and education are for them." A motivator was re-defined by PP06, saying, "Intending to motivate my children, I often tutored them. In many cases, they were sharing that they were motivated to attend their classes whenever I helped them in their learning tasks." PP1 was attuned to this statement, saying, "As much as possible, as a parent, I let my child know that I am always available whenever he needs me to do his academic tasks. I always ensure that I motivate him and cheer him up whenever he is tired and does not want to attend his classes online." Surprisingly, new roles were identified as parents shared their experiences of providing support to their children and their teachers. One of them was being a safety advocate. PP07 and PP10 shared: "Whenever our children were scheduled to do their physical activities and fitness, which are often recorded, we guaranteed that our children's platforms and spaces were safe. In the same way that we checked whether they engaged in the activities safely and appropriately." In doing so, being a home learning partner was defined: "I know that my responsibility is to be a learning partner with my children's teachers. We, therefore, collaborated with them in such a way that we asked them the objectives for the activities and requirements needed. This aspect is very important because we are getting informed about what kind of support we need to provide to our children" (PP05). In addition, the parents PP02, PP03, and PP04 had similar views on the importance of "sharing sentiments and observations on our children's performance in their VHPEP." While it was fully online, parents had a lot of time to spend with them and observe how they performed their tasks. It was seen as an opportunity that "strengthened our relationship with our children. After all, they felt we were there to support them at all times, especially with their learning needs" (PP04). Finally, being a wellness advocate is another role that parents play in supporting their children, and in a way, their children's teachers. All had given importance to "ensuring children's learning in VHPEP is translated into actionable goals toward a healthy lifestyle." PP01, PP03, and PP08 echoed that, like their VHPEP teachers, as parents, they promoted the importance of regular physical activity, especially during the pandemic when everyone was restricted from going out. To respond to the need and the situation, they claimed, "We encouraged our children to maximize the open spaces in our households, turning our small sala into an exercise space where yoga mats were placed and where we could do basic exercises." PP10 shared that "I encouraged my children to develop healthy eating habits by providing them nutritious food and meeting their needs. I always make sure that my child has enough sleeping time, and while we were then on a pandemic and their PE and Health were conducted only, I made sure that they followed routines and exercises that ensured their wellness."

#### *Inputs for Directions of an Improved VHPEP*

As regards the potential of an improved VHPEP, TPs, and PPs agreed that there is a greater potential for a better VHPEP. However, it is essential to exercise caution and highlight the importance of collaboration among stakeholders. Working together and supporting each other is crucial to achieving a high-quality virtual education. The researchers highly recommended the following measures.

**1. Robust Technological Infrastructure:** Schools should have the required technological infrastructure that never falters and can accommodate traffic and large amounts of data. As experienced in the VHPEP, when students turned all their cameras on, the system lagged. It should not happen in the future VHPEP where robust technological infrastructure is in place: reliable internet connections, software and device support systems, and technical support for students and teachers.

**2. An improved VHPEP Curriculum:** The curriculum should be well-planned, and its development is the product of the collaborative effort of many stakeholders, such as representatives from parents and students, IT specialists, curriculum experts, and VHPEP teachers. The learning activities are not only designed for the virtual medium but also appropriate and target specific physical education and health learning outcomes. The conceptual-theoretical knowledge can be fully catered to virtually, but there should be an opportunity to gauge practical skills and competencies. If in-person learning remains a challenge, then there should be clear guidelines on assessing practical examinations in VHPEP. Assessment and evaluation, as important aspects of the curriculum, should also be revisited and improved. The best directions for VHPEP require the development of appropriate methods for students' assessment and evaluation of their performance. Not only do the teachers need to do online quizzes, but they also must know whether such a quiz covers an aspect that should be assessed. In simpler terms, the teachers should know what is to be assessed and how it should be assessed in the online setup.

*3. Interactive and Engaging Instruction:* The student's participation in a VHPEP setting must be improved in such a way that cheating becomes impossible. It may be done by using the specific server for the exam or some other online tools and applications that will hinder cheating. Students confessed that they cheated during VHPEP examinations, such as by using web pages or having phone calls with friends to answer the examination. Teachers shared that "A VHPEP may even work well if students and teachers regularly meet in person for examinations and practical tests. The VHPEP has the potential for long-term teaching of theories and concepts in Health and Physical Education" TP01. Moreover, it was considered important to promote the deliberate use of cameras and microphones. TP01 shared, "We should have some solution for the camera issues, and this is the major limitation of the method because some students are not following. They came to the class just because they were required to, but after that, they were not following their teachers."

*4. Consistent Stakeholders Support:* The future and success of VHPEP at any institution heavily depend on the support the program receives from its stakeholders. It is not just basic support but 100% support, from providing the materials and technology requirements to preparing and equipping teachers with the competencies and skills they need to navigate the virtual platform. In the context of Prince Sultan University, its VHPEP is successful because of the supportive academic leaders who gave 100% support to the teachers' needs. Assisting each other also contributed to the success of the program. We help each other; the teachers help each other toward the success of VHPEP. In PSU, I think we did quite well, in implementing the VHPEP. The crucial role of parents as home learning partners is very much needed in the VHPEP. When students are at home, attending their classes online, oftentimes they take learning for granted. The parents' role now as learning partners is crucial, as they can assist their children to remain on track with their learning and guide them to be responsible for their learning as well.

*5. Teacher Training and Professional Development Program:* There should be provisions for consistent and developmental teacher training and a professional development program for teachers. Such may include video demonstrations, pedagogical ways of ensuring interactive online teaching processes, gamification, and others.

## Discussion

Implementing the VHPEP required major adjustments in the teaching practices of teachers. A study on teachers' experiences truly matters as it may lead to significant realizations (Wright & Villaflor, 2019). Shifting from in-person teaching practice to HPEP resulted in many issues and challenges that teachers needed to face. The foremost is managing the class, which all teachers agreed on. Not only managing class virtually was a concern, but also the lack of interaction and sustaining students' interest. In a study by Alshammari (2022), it was found that these two factors are the major factors that hinder the effectiveness of virtual teaching in physical education. In addition, the practice and issue of ineffective assessment was also a common denominator for many teachers in VHPEP. This finding is comparable to the results from an interview conducted by Milosievski et al. (2020). It was even a surprise that these issues and challenges were likened to the reason why VHPEP students cheated in their classes, especially when performing their physical activity and fitness tasks. VHPEP teachers realized the importance of taking shifts in their teaching to manage and address the difficulties. Reinforcing students' participation and technological competence, making adjustments in teaching conceptual and theoretical parts of the health and physical education discipline, and developing new strategies to ensure students' engagement were found necessary.

The VHPEP teachers felt anxious due to the uncertainties of the time and the current demands of the situation. However, despite this challenging experience, the teachers realized the importance of self-reflection to sail through the challenges. All teachers experienced anxiety, especially when they learned of the need to shift from in-person teaching to virtual teaching and learning. In contrast to Centeio et al. (2021), who observed that teachers were struggling to figure out how to teach virtually, the current study found that VHPEP teacher participants demonstrated a clear understanding of the challenges associated with virtual teaching. Unlike Marshall et al. (2020), who reported that teachers had difficulty determining which parts of the curriculum could be adapted to the virtual environment, the VHPEP teacher participants displayed a deep understanding of their curriculum.

In making sense of the situations, the teacher participants in the present study realized the importance of reflection to be able to identify the causes of anxieties and be able to mitigate them. A substantial part of mitigating the anxieties and addressing the challenges requires the development of new perspectives toward their situation and VHPEP teaching. Consequently, teachers successfully realized that the virtual teaching of HPEP offered not only opportunities but also challenges. Therefore, the importance of parents' support truly matters at that time. The results revealed that parents essentially played various roles to support their children and, in a way, their children's teachers. Among the roles that were identified and defined were (a) being a provider; (b) serving as a home learning partner; (c) being a safety advocate; and (d) being a health and wellness advocate. It should be noted that the parents' roles were played simultaneously.

The results provided a significant step toward determining the trajectories of the program and possible recommendations/suggestions to address issues and ensure a better VHPEP. First, a robust technological infrastructure should be guaranteed before implementing the program. It involves the assurance of a reliable internet connection, a software and device support system, and technical support for students and teachers. Second, there must be an improved VHPEP curriculum that is well-planned, deliberated, and the product of the collaborative effort of many stakeholders,

such as representatives from parents and students, IT specialists, curriculum experts, and VHPEP teachers. Third, the program should offer interactive and engaging instruction to capture interest and motivate the students. Subsequently, there must be consistent stakeholder support, from providing the materials and technology requirements to preparing and equipping teachers with the competencies and skills they need. Finally, there are training and professional development programs designed for VHPEP teachers. The offering of these programs should be consistent and needs-based. All these results imply that while the VHPEP is a good program, some aspects require special attention, and there is still room for improvement.

### **Conclusion**

Exploring the VHPEP existing practices, teachers' experiences and parents' roles in support of their children and teachers has led researchers to identify potential recommendations for enhancing the VHPEP in the future. This study provides valuable insights into teachers' experiences in virtual teaching and can help stakeholders reflect on the shared practices and challenges encountered during the implementation of the online education program. While the study gives much attention to the significant perceptual data from teachers and parents as collaborative workers for ensuring quality teaching and learning, caution should be exercised since it is context- and experience-based research.

### **Recommendations**

The researchers recommend that other VHPEP program implementers highly consider this study as the starting point for revisiting their own VHPEP at their respective institutions. The study highlights trajectories or inputs for future directions of the virtual program. Implementers may consider these aspects to assess their program. For students' parents, while the parents have their fair share in the implementation of the program, it is recommended to engage actively and participate consistently in the learning of their children, explicitly and directly, since they are considered the learning partners of the university, especially in times of crisis where online modalities are needed. For future researchers, it is recommended to elicit the insights and experiences of students who had firsthand experience of the program. Teachers should maintain a consistent approach to program implementation to ensure that every student receives equal levels of attention and support. This consistency can potentially foster students' interest in the program. Moreover, the teachers should be more dedicated to continuously improving and regularly evaluating the VHPEP curriculum, teaching methodologies, and assessment techniques. These efforts can lead to an enhanced learning experience and improved outcomes for all students. While the VHPEP is a good program, some aspects require special attention, and there is still room for improvement.

### **Limitations**

There are a few limitations to this study. Firstly, it is entirely qualitative research, where statistical data are not given much importance. Secondly, it is heavily textual-context-and-experience-based research, where comparison and generalization of results are not viable. Finally, it is limited to a small number of participants. Therefore, generalizability and replicability may not be feasible. However, it should be noted that while these limitations exist, it does not mean that the research has less worth since it followed an established and rigorous methodology.

### **Ethics Statements**

This human-participated research followed the ethical standards of the [BLINDED] Institutional Research Committee and the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. All participants provided written informed consent to participate in this study.

### **Acknowledgments**

The researchers are highly indebted to all research participants who voluntarily and generously shared their experiences of the virtual program.

### **Conflict of Interest**

There is no conflict of interest in conducting this study.

### **Funding**

This study receives support from Prince Sultan University with grant number: SEED-DES-2020-08.

### **Authorship Contribution Statement**

M. C. Defensor: Concept and design, interviews, securing a grant, data analysis/interpretation, supervision. R. I. Defensor: Research matrix, data analysis/interpretation, technical support. Wright: Drafting of preliminary paper, data analysis/interpretation, editing/reviewing.

## References

- Alshammari, S. M. (2022). Efficacy of teaching physical education online: A comparative study during COVID-19 school closures. *SPORT TK-Revista EuroAmericana de Ciencias Del Deporte*, 11(2), Article 9. <https://doi.org/10.6018/sportk.512771>
- Blain, D. O., Standage, M., & Curran, T. (2022). Physical Education in a post-COVID world: A blended-gamified approach. *European Physical Education Review*, 28(3), 757–776. <https://doi.org/10.1177/1356336x221080372>
- Centeio, E., Mercier, K., Garn, A., Erwin, H., Marttinen, R., & Foley, J. (2021). The success and struggles of physical education teachers while teaching online during the COVID-19 pandemic. *Journal of Teaching in Physical Education*, 40(4), 667–673. <https://doi.org/10.1123/jtpe.2020-0295>
- Chan, W. K., Leung, K. I., Ho, C. C., Wu, C. W., Lam, K. Y., Wong, N. L., Chan, C. Y. R., Leung, K. M., & Tse, A. C. Y. (2021). Effectiveness of online teaching in physical education during COVID-19 school closures: A survey study of frontline physical education teachers in Hong Kong. *Journal of Physical Education and Sport*, 21(4), 1622–1628. <https://doi.org/10.7752/jpes.2021.04205>
- Chu, Y.-H., & Li, Y.-C. (2022). The impact of online learning on physical and mental health in university students during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(5), Article 2966. <https://doi.org/10.3390/ijerph19052966>
- Cleland, J. A. (2017). The qualitative orientation in medical education research. *Korean Journal of Medical Education*, 29(2), 61–71. <https://doi.org/10.3946/kjme.2017.53>
- Coulter, M., Britton, U., MacNamara, A., Manninen, M., McGrane, B., & Belton, S. (2023). PE at Home: Keeping the 'E' in PE while home-schooling during a pandemic. *Physical Education and Sport Pedagogy*, 28(2), 183–195. <https://doi.org/10.1080/17408989.2021.1963425>
- D'Agostino, E. M., Urtel, M., Webster, C. A., McMullen, J., & Culp, B. (2021). Virtual physical education during COVID-19: Exploring future directions for equitable online learning tools. *Frontiers in Sports and Active Living*, 3, Article 716566. <https://doi.org/10.3389/fspor.2021.716566>
- Defensor, M. C. (2022). Perceived satisfaction of Prince Sultan University graduates and faculty from Health and Physical Education Program (HPEP). *International Journal of Human Movement and Sports Sciences*, 10(2), 207–216. <https://doi.org/10.13189/saj.2022.100211>
- Di Bartolomeo, G., & Papa, S. (2019). The effects of physical activity on social interactions: The case of trust and trustworthiness. *Journal of Sports Economics*, 20(1), 50–71. <https://doi.org/10.1177/1527002517717299>
- Foley, G., & Timonen, V. (2015). Using grounded theory method to capture and analyze health care experiences. *Health Services Research*, 50(4), 1195–1210. <https://doi.org/10.1111/1475-6773.12275>
- González, C., Ponce, D., & Fernández, V. (2023). Teachers' experiences of teaching online during COVID-19: Implications for postpandemic professional development. *Educational Technology Research and Development*, 71, 55–78. <https://doi.org/10.1007/s11423-023-10200-9>
- Jeong, H.-C., & So, W.-Y. (2020). Difficulties of online physical education classes in middle and high school and an efficient operation plan to address them. *International Journal of Environmental Research and Public Health*, 17(19), Article 7279. <https://doi.org/10.3390/ijerph17197279>
- Lynch, T., & Soukup, G. J. (2016). “Physical education”, “health and physical education”, “physical literacy” and “health literacy”: Global nomenclature confusion. *Cogent Education*, 3(1), Article 1217820. <https://doi.org/10.1080/2331186x.2016.1217820>
- Marshall, D. T., Shannon, D. M., & Love, S. M. (2020). How teachers experienced the COVID-19 transition to remote instruction. *Phi Delta Kappan*, 102(3), 46–50. <https://doi.org/10.1177/0031721720970702>
- Mercier, K., Centeio, E., Garn, A., Erwin, H., Marttinen, R., & Foley, J. (2021). Physical Education Teachers' experiences with remote instruction during the initial phase of the COVID-19 pandemic. *Journal of Teaching in Physical Education*, 40(2), 337–342. <https://doi.org/10.1123/jtpe.2020-0272>
- Milosievski, M., Zemon, D., Stojkovska, J., & Popovski, K. (2020). *Learning online: Problems and solutions*. UNICEF Global. <https://uni.cf/3YYcATz>
- Mishra, S., Sahoo, S., & Pandey, S. (2021). Research trends in online distance learning during the COVID-19 pandemic. *Distance Education*, 42(4), 494–519. <https://doi.org/10.1080/01587919.2021.1986373>
- Moser, A., & Korstjens, I. (2017). Series: Practical guidance to qualitative research. part 1: Introduction. *European Journal of General Practice*, 23(1), 271–273. <https://doi.org/10.1080/13814788.2017.1375093>

- Pavlovic, A., DeFina, L. F., Natale, B. L., Thiele, S. E., Walker, T. J., Craig, D. W., Vint, G. R., Leonard, D., Haskell, W. L., & Kohl, H. W. (2021). Keeping children healthy during and after COVID-19 pandemic: Meeting youth physical activity needs. *BMC Public Health*, 21, Article 485. <https://doi.org/10.1186/s12889-021-10545-x>
- Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). SAGE Publications Inc.
- Schwandt, T. A. (2015). *The SAGE dictionary of qualitative inquiry* (4th ed.). Sage Publications. <https://doi.org/10.4135/9781483398969>
- Webster, C. A., D'Agostino, E., Urtel, M., McMullen, J., Culp, B., & Egan Loiacono, C. A. (2021). Physical education in the COVID era: considerations for online program delivery using the comprehensive school physical activity program framework. *Journal of Teaching in Physical Education*, 40(2), 327–336. <https://doi.org/10.1123/jtpe.2020-0182>
- Wright, C. Y., & Villaflor, P. C. C. (2019). Diasporic queer in classroom: The resiliency of Filipino teachers in international schools. *Journal of Sciences, Technology and Arts Research*, 4(1), 2-12. <https://bit.ly/3Eor7yq>