Phys. Educ. Sport Stud. Res. 3(2); 96-115 (2024)
DOI: 10.56003/pessr.v3i2.364

Physical Education and
Sport: Studies and Research

REVIEW ARTICLE Open Access

The Efficacy of Virtual Physical Education and Its Contribution to Raising Learners' Interest and Engagement Levels

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Submitted : May 25, 2024
Accepted : September 21, 2024
Published : October 25, 2024

Abstract

Background: Schools are reluctant to adapt physical education to virtual as it would be challenging to do physical education via virtual learning.

Objectives: This study aimed to assess the contemporary efficacy of virtual physical education and its contribution to raising learners' interest and engagement levels.

Methods: This study employed an exploratory research design. The content was compiled using various printed and electronic textbooks, encyclopedias, reference materials, scholarly publications, and dissertations. Subsequently, the author assessed the multiple sources to ascertain the data's caliber.

Results: Conventional education is obsolete; thus, schools should adopt virtual physical education due to its positive outcomes in education regarding learners' performance by increasing learners' interest and engagement.

Conclusion: A properly planned and well-implemented virtual physical education, well-trained and experienced educators, well-guided learners, proper infrastructure, and supporting resources result in learners being interested and engaged, thus leading virtual physical education to success. This study bridges the gap between virtual physical education and learners' interest and engagement, adding to the existing corpus of information concerning virtual physical education.

Keywords: Learner engagement, learner interest, physical education, virtual physical education, technology.

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INTRODUCTION

The world of the twenty-first century (21st century) is getting more digitalized, which is yet another explanation for why academics need to pay more attention to the details of their learners and cohorts and figure out how to interact with and encourage solitary learners. For many academic staff members, the virtual environment poses obstacles since, in addition to their usual workload, they are expected to possess more excellent technological skills and expertise (Gillett-Swan, 2017). The field of education is experiencing a thorough transformation in the information era. The overall state of physical education instruction in schools is still characterized by traditional and antiquated teaching strategies and resources, as well as a lackluster curriculum that cannot cater to the specifications of today's learners. It is even more challenging to adjust to the changing demands of the educational landscape (Zhang, 2022). Physical education is a crucial component of the curriculum in schools. Its goals are to promote the growth of fundamental motor capabilities, fitness associated with health, and understanding and mindsets regarding physical activity. These goals include motor abilities like jumping and sprinting, health-related physical activity, non-motor abilities like muscle stretching and balancing, playing abilities like throwing, kicking, and ball skills, timing, and equilibrium (Wiguno et al., 2022).

The advancement of information and communication technologies (ICT) has made virtual education increasingly practical in terms of technology, cost, and administration. Schools are urged to provide distance learning courses due to several factors, including budgetary limitations and benefits (such as the elimination of the need for physical classrooms, educational spaces, restaurants, dormitories, and library systems), the rise in full-time employment of unconventional learners, and the advancement of technology that makes it simple to put into effect (Palvia et al., 2018). Learning has moved from being done in person to virtually and in modules, emphasizing the latter (Argarin & Argarin, 2022). Over the past years, virtual physical education classes have become increasingly popular. The Corona Virus Disease-19 (COVID-19) epidemic is mostly to blame for the newfound opportunity that virtual education has presented for traditional classroom instruction. Most of the studies on virtual physical education were carried out because the COVID-19 pandemic resulted in too many problems, like poor planning and not implementing virtual physical education properly. COVID-19 presented many challenges to learners, educators,

schools, and the government, resulting in negative results in virtual physical education. Educators needed to learn to teach virtual physical education and navigate the system, leading to poor instruction and learners losing interest and disengaging. Most public schools needed more preparation for virtual physical education and more infrastructure to facilitate virtual physical education. Putra et al. (2023) believe that modifications to the teaching strategies used in the classroom may impact learners' instructional practices and routines for activity.

During COVID-19 challenges on virtual physical education have attracted scholars like (Backman & Barker, 2020; Chan et al., 2021; Daum & Buschner, 2014; Elliott et al., 2022; Jaberi & Barkhordar, 2023; Webster et al., 2021). Even though most studies on virtual physical education were done during and after COVID-19, studies have yet to assess the efficacy of virtual physical education and its contribution to raising learners' interest and engagement levels. This work will eventually present potential avenues for further study on virtual physical education and its contribution to raising learners' interest and engagement levels and offering pertinent information in virtual physical education. The individualized aspects of the learning process are ignored by the conventional classroom method of instruction; hence, it is essential to change this approach. Although the conventional classroom teaching approach is still commonly employed in collegiate physical education today, more is needed to satisfy the demands of the evolving educational landscape. Physical education methods and instruction techniques are still rooted in conventional language and practices, which makes it clear that they cannot satisfy the demands of the growth of the discipline in the face of the informatization of education (Zhang & Min, 2020).

The challenges associated with implementing virtual physical education classes for learners in middle and high schools consisted of the restricted surrounding environment of the classes, constrained educational material that failed to effectively communicate the benefits of physical education, the use of experimental techniques due to a dearth of experience in running virtual physical education, and the highly confined examination standards that were suggested, making organized evaluation via internet approaches unfeasible (Jeong & So, 2020). The problem identified in this study is that schools are reluctant to adapt physical education to virtual as it would be challenging to do physical education via virtual learning. Also, the problem with virtual physical education is that it

is not feasible to implement, leading to learners losing interest and disengaging during virtual classes. However, learners in physical education classes have a positive outlook on virtual learning and believe that, despite its limitations, it is a handy tool for studying both practical and academic topics in the COVID-19 age (Jumareng et al., 2021).

Liu (2019) explains that the discipline of virtual reality technology is a recent development in computer-based actual-life recreation. In contrast to earlier interactions between humans and computers, it offers both human-computer interaction and a powerful visual or audio sensation. Software and hardware are integrated throughout the computer's interfaces and terminal devices to mimic human perceptions, giving users an enhanced contextual perspective and a feeling of immersion from every angle. Chen (2023) emphasizes that the actual demands of classroom instruction cannot be satisfied through conventional physical education techniques in the digital age. As a result, cutting-edge virtual reality technologies, including augmented reality (AR), must be used to increase overall instructional effectiveness. This is confirmed by Norman, II (2020) study that found that learners engaged in the conventional in-person classroom instruction method program as opposed to the virtual curriculum had higher outcomes as participation. Concurrently, González-Calvo et al. (2021) give a clear and convincing argument by stating that, among other things, aspiring educators recognize that physical education must be taught in person to retain its significance, which the virtual classroom models have flaws and that adopting a virtual teaching approach increases the likelihood of educators experiencing stress and losing interest in their work. The distinctions between teaching physical education in schools are becoming hazier because of modifications in in-house connections. Figure 1 illustrates how the primary concerns of physical education restructuring may be broken down into four categories (Shi, 2023).

Physical education was either marginalized to a mobility interlude across topics seen as having a more significant status and importance, or physical exercise was provided instead of physical education. Educators expressed worries about the inconsistencies around the usage of educational technologies and the significance of the relationship between educators and learners. Shifting physical education instruction to a virtual format harms educational goals (Cruickshank et al., 2021). They were incorporating ICT to spur modernising teaching strategies and bringing them into compliance with 21st-century skills requirements (Culajara et al., 2023). With the growing popularity of virtual and hybrid

education, many educational organisations are implementing this approach because of its versatility, peer-to-peer interaction, and learner-educator engagement; thus, educators are faced with modern challenges in keeping their learners motivated and engaged (Almusaed et al., 2023). A suitable degree of virtual classroom classes' efficacy revealed a substantial difference between educators and learners (Yu & Jee, 2020).

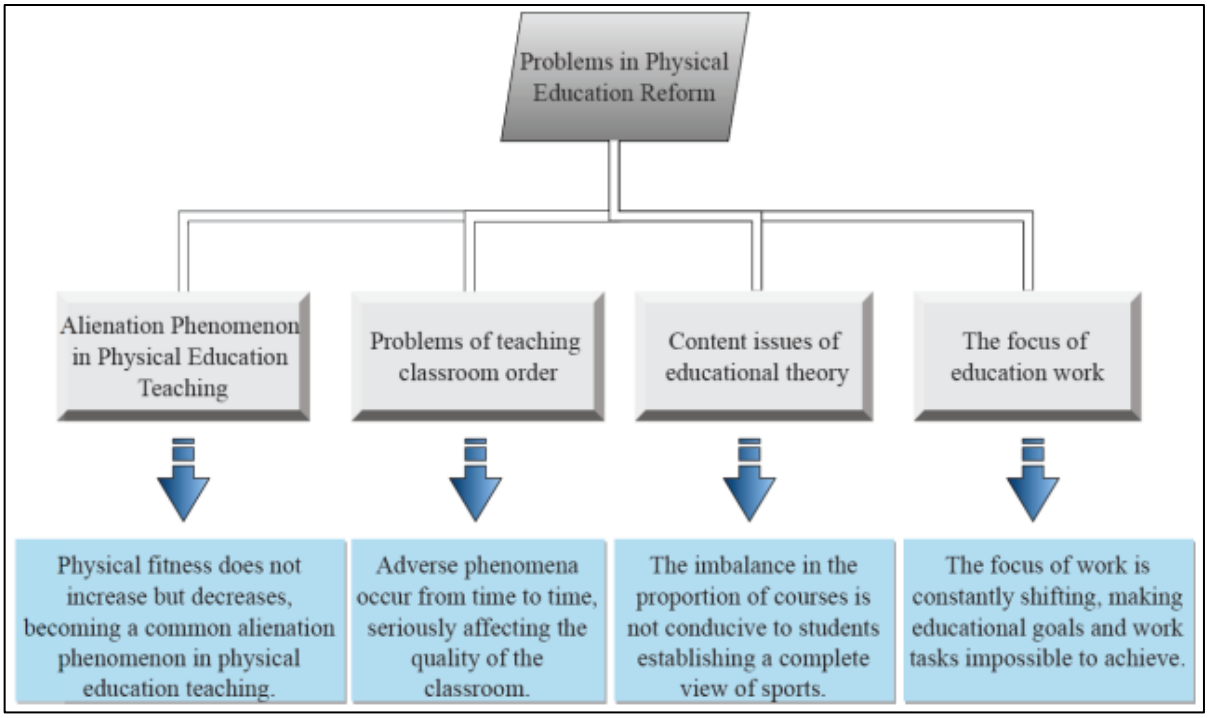

Figure 1. Main problems of physical education reform
Source: Shi (2023)

Among the many advantages of implementing virtual physical education in schools is the ability to collect and analyze pictures (Zhang, 2018). Virtual reality technology may also interpret visuals and access and analyze force fields, magnetic fields, and other natural situations. The ability to see is a crucial tool for gathering outside information. "Virtual reality" technology uses cutting-edge holographic screen technology to offer users an auditory sensation. Simultaneously, "virtual reality" technology offers 3-dimension (3D) virtual speech realism in the sound's construction and dissemination, giving users a genuine stereo experience that improves interaction. Owing to the fully engaged nature of virtual reality technology, computer-generated virtual reality technology not only replicates the situation but also allows individuals to communicate alongside it, creating a sense of immersion that mimics the effects of the actual environment. Virtual reality technology is adaptable to individual needs, meeting people's desire for communication

while creating a realistic environment that enhances learning and piques learners' interest. The benefit of computers is that they enhance science and convenience in traditional classroom instruction. There are both real and virtual classrooms in the virtual classroom. As seen in Figure 2, educators and learners are dispersed throughout numerous schools in classrooms, with the virtual classroom serving as a conduit between the actual class attendees (Wang et al., 2022).

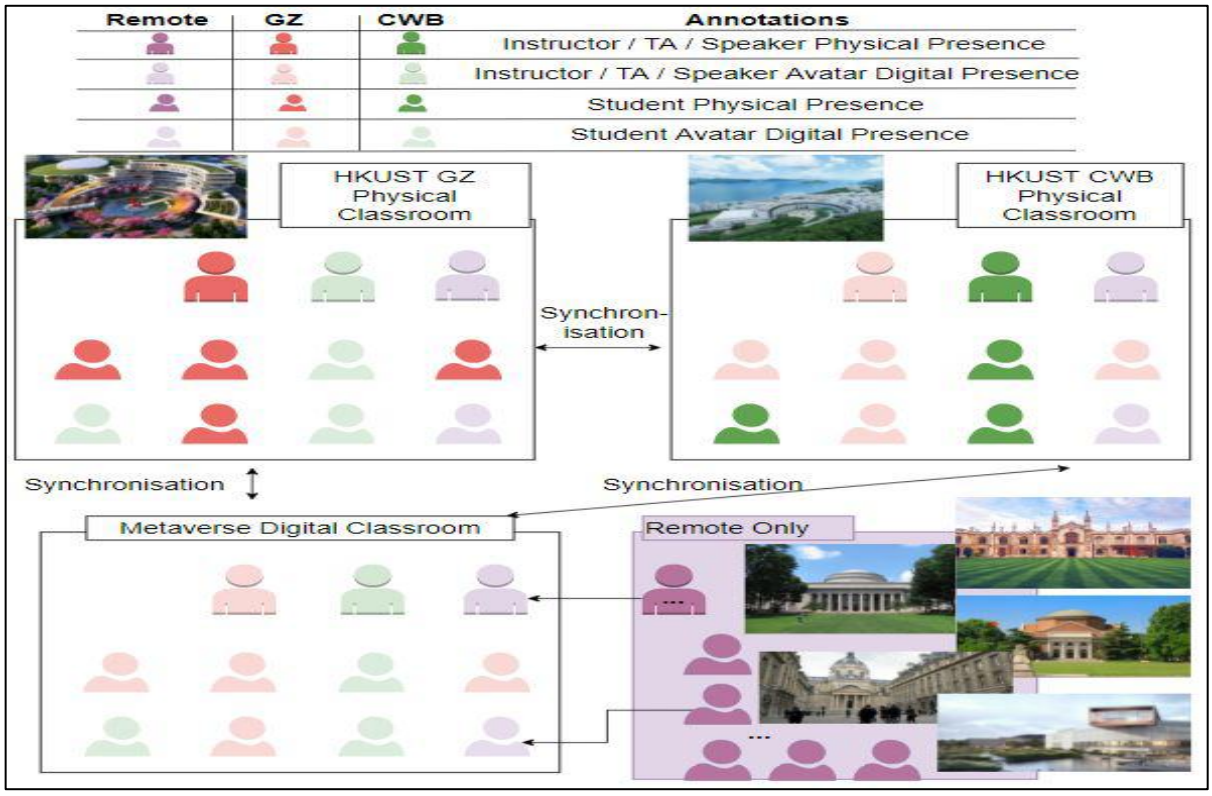

Figure 2. Metaverse classroom
Source: Wang et al. (2022)

The physical participants in one place can meet virtual and physical participants in other areas. Wang et al. (2022) employed an isolated example to illustrate the idea. Learners are dispersed across two different locations (Hong Kong Clearwater Bay (CWB) and Guangzhou (GZ)) in two physical classes and one virtual classroom. Each of these groups is synced up such that participants in any of the three may see their respective avatar representations during their interventions in the remaining two classrooms. This study aimed to assess the contemporary efficacy of virtual physical education and its contribution to raising learners' interest and engagement levels. As internet and multimedia computing technologies have advanced, so have the virtual desktop applications that have become so

prevalent in educational settings. As for such, the question being asked in this study is: What is the contemporary efficacy of virtual physical education, and what is its contribution to raising learners' interest and engagement levels?

Learners' Interest in Virtual Learning

Learning interests are necessary in physical education to ensure educational objectives are met (Kurniawan et al., 2021). The domain of psychomotor function is dominant among physical education disciplines. The primary purpose is physical fitness; movement abilities are associated with the psychomotor domain. Learners found the WhatsApp group's content to be the most useful. They selected it as it facilitated their ability to attend online courses and gather assignments through videos. Throughout learning virtually, most learners are more engaged in the lecture style. Learners preferred the learning approach of combining digital and traditional studies (Apriyanto & Adis, 2021).

Educators who employ various teaching techniques, including animations, graphics, and videos, ignite learners' interest in virtual learning and elicit favorable responses. The broad scope of virtual education media, which includes elements like group discussions, messaging, and participation menus, constitutes one of its most alluring advantages (Uliyandari et al., 2021). However, Septian and Sukarmin (2021) suggest that it is difficult for educators to determine the extent to which learners are genuinely interested in learning through the Internet. Still, it is pretty challenging to manage virtual learning activities. Still, most learners responded well to the virtual education procedure. Learners consider it easier to get topics covered digitally and consider it challenging to complete the numerous assignments assigned by the instructors.

Macasling et al. (2023) state that virtually studying their primary courses is discussed by learners based on their experiences. Poor Internet, which has occasionally been spotty or ineffective, has been the leading cause of their problems, worrying them and decreasing their motivation to learn. While a few respondents expressed interest in virtual learning due to factors like the ability to multitask and learn new things via technology, nearly all the learners identified challenges that negatively impact their interest in studying. These challenges included issues with internet connectivity, virtual performance, poor time management, needing more resources, and being expensive. Chen (2016) found that a poorly constructed virtual course causes learners to get disoriented,

lose interest, and become upset. Presenting physical education via the Internet was challenging since learners were not happy with their virtual education. Except for skill training via video graphic techniques, live instruction cannot substitute for virtual instruction since it cannot meet the needs of instructors and learners (Akila et al., 2021). For group tasks, learning physical activities proved impractical. Learners thought that mistakes continued during the implementation stage. Educators noted that learners' participation in the assessment stage was lacking and that they only turned in assignments.

Technology was also cited as an element of glory, as it allowed educators to engage with learners successfully and offer valuable lessons in physical education and exercise after surmounting certain obstacles. While educators could not enforce participation requirements, they did note that learners who took part in their courses seemed very involved and excited regarding the learning exercises. Absence of engagement and absence of policy mandating learner engagement. Educators thought they had overcome technological obstacles but were still concerned about standards compliance and evaluation. It was difficult for educators to monitor and assess learner involvement in a virtual setting. Though it was merely engaging the learners virtually or by a paper packet or offering virtual adjustments and changes, it was challenging to satisfy the needs of every learner (Centeio et al., 2021).

Learners' Engagement Levels in Virtual Learning

Casey and Jones (2011) state the value of video technology in raising learner engagement and, in turn, propose that this level of dedication assisted learners in developing comprehension that went beneath technical imitation and through logic and logical learner explorations within their studies. It also made learners feel less excluded and encouraged them to engage more in their education. However, Eswaramoorthi et al. (2022) argue that learners' engagement level is a significant determinant of studying, efficiency, successful completion of courses, and contentment. Face-to-face instruction is more effective because it allows the educator to watch and read the learners' physique and facial movements. However, in a virtual classroom where learners are seated in front of surveillance footage, it is hard to determine whether they are paying attention.

A study conducted by Petrušič and Štemberger (2021) shows that the flipped learning approach, in which learners were provided with an overview of the various educator video recordings beforehand, proved to be the most successful. Subsequently,

learners contributed their opinions and actively participated in the virtual lesson. Interactive assignments and activities were developed using a statistically less effective version of the flipped learning teaching approach. A combination of virtual frontal education with station works and in-person frontal instruction came next. The learners did the least successful work independently, following the educator's instructions. The two flipped learning teaching approaches were the most successful regarding workout severity, but since they take too much instructor time, they are challenging to implement.

Christopoulos et al. (2018) study discovered that well-structured relationships might be crucial for raising student engagement. A seamless introduction to a virtual environment's resources, practices, protocols, and advantages may help learners engage in meaningful and productive conversations. Concurrent physical and virtual colocation of learners can eliminate physical and virtual environments' shortcomings while enhancing their best qualities. Learners who complete a training session acquire the abilities required to utilise a virtual environment's opportunities fully. Thus, ample time ought to be provided for learners to settle in, become acquainted with the resources available, and discover their full capabilities. Educators must encourage their learners to engage with the in-world material for learning by giving them straightforward directions and details about its presence and function.

In a study by Ganguly et al. (2023) using mobile application intervention, women's participation in fitness activities might be improved by taking virtual fitness classes. Adding mobile learning enabled adult females to participate in virtual yoga and fitness sessions at a higher rate. Three weeks, involvement in a fitness class, and fifteen grownup female participants were the necessary resources for this endeavour. In another study, Marcaida et al. (2022) found that senior high school learners' involvement in physical education classes was significantly increased by gamification, which captured elements of learner interest, incentive from rivalry, and more complex thinking abilities. However, learners thought gamified lessons were a little challenging because they needed gadgets available, and the games were short. This made it harder for them to participate during lessons to comprehend the physical education material related to their financial circumstances, technology, connections, environments, and educational styles.

METHOD

Study Design and Participants

This study employed an exploratory research design since the main objective of using this approach is to create and investigate a problem that calls for a more in-depth or focused investigation (Mexon & Kumar, 2020). This study employed exploratory research because there is a desire to learn further about a subject, issue, or incident that is widely unknown (Saunders et al., 2019). The nature of exploratory inquiry is fluid and changeable. When performing exploratory research, one must be open to modifying his plan in response to new information and ideas that dawn on you (Saunders et al., 2019). By gaining a basic grasp of the topic, the research aimed at helping people understand the problem being investigated (Cooper & Schindler, 2008). Identifying and evaluating secondary sources is frequently a component of an initial search strategy (Cooper & Schindler, 2014). It is crucial to be willing to try new things and to change course as needed while doing exploratory research (Saunders et al., 2019).

This study used secondary sources. Bookstaver (2021) states that secondary analysis is the process by which a researcher conducts a study for an alternative reason than the initial study using data generated by another scientist or collector. The content was compiled using various printed and electronic textbooks, encyclopedias, reference materials, scholarly publications, and dissertations. The DOAJ (Directory of Open Access Journals), EBSCO, ELSEVIER, Google Scholar, and ResearchGate databases all have the references traceable (see links & articles DOI (Digital Object Identifier) of the papers mentioned in this study under the references). The author used secondary data since it can result in fresh insights and guidance, and because it takes less time to collect and examine, it produces a more objective evaluation (Saunders et al., 2019).

RESULTS AND DISCUSSION

In physical education at schools and other organisations, computerised "virtual reality" technology is utilised to achieve objectives that traditional physical education approaches are not very good at. Since virtual education helps learners feel less alone and inspires them to be more interested in their studies, video technology significantly impacts student engagement. This is supported by Wang and Wei (2020), who argued that relying primarily on academics for instruction, the conventional physical education teaching paradigm is generally straightforward, with somewhat repetitive material and dull

instructional methods. Prescribed material is also used in the teaching process. Learners' motivation to study will unavoidably decrease when they are taught the same material again. Learners today have more access to fresh information and are increasingly interested in electronics and developing technology. This function may be used flexibly during the physical education process. Learners' interest in sports classes can be piqued, and their enthusiasm for learning is sparked when virtual technology is used.

Advantages of Virtual Physical Education

In the digital age, virtual physical education is distinct as, when appropriately delivered, the material should prompt the learners to exert themselves. As a result, irrespective of widely accessible technology, it becomes very challenging to satisfy several of the aims of virtual physical education (Daum & Buschner, 2014). Thus, this study claims that learners become disinterested and disengaged because of virtual physical education's challenges, like poor planning, improperly trained and inexperienced educators, poor learner guidance by the educator, and lack of supporting infrastructure and supporting resources. This makes it difficult for them to understand the physical education curriculum, which is connected to their financial situation, technology, connections, settings, and learning styles.

Virtual physical education is an exciting field with many benefits. Learners with hectic or unpredictable schedules may find it particularly useful as virtual physical education enables them to engage in physical exercises at their speed and timing. It allows learners to participate in physical education even if they are physically unable, reside in a distant location, or lack access to typical gymnasium infrastructure. Virtual physical education offers personalised training plans and progress monitoring based on each learner's fitness objectives and ability. Learners can access many digital materials that enhance their learning experience, such as educational films, interactive applications, and online fitness competitions. Virtual reality, health monitors, and wearable technology can improve education and offer instantaneous performance assessment.

Challenges of Virtual Physical Education

The most significant drawbacks of online physical education are limited room for practising practical skills and low information transfer (Aguinaldo, 2021). The number of physical education courses that might have been delivered inevitably decreased since the participants in virtual physical education utilised materials that were easily found at home

(Jeong & So, 2020). Teachers in physical education, particularly those in underdeveloped and less developed nations, may not be accustomed to Internet content and cannot integrate it. Lack of the required tools (recording devices, microphones, computers), and lack of access to the software needed to edit photos and code videos, or no prior experience with it (Lm & Kim, 2007). Physical education teachers have issues with vacant cameras and delayed responses in online learning, which impact the effectiveness and tempo of instruction (Yarmand, Solyst, Klemmer & Weibel, 2021). It might be difficult to apply evaluations to online courses for physical education. After a long time of online lessons, it appeared unrealistic to grade learners solely based on the material they had learned in school, given the nature of the topic of physical education (Rathee, 2023).

Virtual physical education presents various exciting and complex issues for sustaining learners' interests and levels of engagement. Virtual physical education poses several difficulties that are worth investigating. When they are not physically there, how can educators make sure their learners are still participating and engaged? What cutting-edge tools or techniques are being employed to monitor student engagement and output? Think about the social and emotional components as well. How can kids develop their sportsmanship and teamwork in a virtual setting? How can educators foster community and peer connection when not physically present? How can technology be used to provide exciting activities that are available to all learners? Furthermore, how do educators modify exercises to accommodate learners and their unique fitness goals and tastes while maintaining a positive learning environment for the whole class? These inquiries shed light on the intricacy and inventiveness of converting traditional physical education into a virtual design, resulting in an intriguing field to investigate in contemporary education.

The restricted classroom environment limited instructional materials that did not adequately convey the advantages of physical education and the need to use experimental techniques because there was a lack of experience in implementing virtual physical education. The suggested minimal examination standards made organised evaluation through online methods impractical, which were the obstacles to implementing virtual physical education classes for learners in schools. As such Wang and Wei (2020) emphasise that while virtual reality technology is still in its early stages of advancement and is only being used in an experimental capacity in physical education, with continued scientific and technological advancements, innovative virtual reality technology, and cost

reductions, this use of virtual reality technology in physical education will eventually mature and reach a state of perfection.

Effectiveness of Virtual Physical Education Implementation

Even if managing the virtual learning environment might be difficult, gauging how enthusiastic learners are in virtual education can be challenging. Nonetheless, most learners had positive reactions to the online learning process. Learners find it difficult to finish the homework the professors give, but they find it simpler to study things online. This finding is supported by Utamayasa and Mardhika's (2024) study. In contrast to the control group that received conventional instruction, these results demonstrated a considerable favourable influence of virtual reality technology on learners' motor development and confidence in completing motions. The Metaverse system has the potential to enhance learners' grasp of sports science while simultaneously igniting their passion for studying. Learners with limited motor skills can have various compelling experiences with virtual reality sports due to the ability to choose the degree of challenge. Hence, Ramirez et al. (2012) believe that contextual obstructions, whether individual, communal, or psychological, are a valuable tool for measuring the influence of various obstacles on participating in the desired conduct. The more obstacles or hurdles for altering there are, the less probable people will engage in the behaviour. Behaviour change-facilitation is greatly aided by each component (self-efficacy, result expectancies, knowledge, objectives, social support, and obstacles).

A dependable internet connection, devices, and required software must be available to educators and learners to implement virtual personal education successfully. Learners' interest in virtual physical education may be increased by creating or selecting compelling digital content, including engaging exercises, videos with instruction, and virtual physical competitions. Sustaining strong educational standards requires teaching educators in virtual physical education how to use digital resources and platforms for virtual physical education in an efficient manner. Fitbits and other wearable technology may be used to measure learner development and participation, which helps monitor and promote regular involvement. It is ensured that everyone may participate and gain from virtual physical education programmes by designing them to be accessible to all learners, including learners with physical limits or impairments.

Tasks of Physical Education Educators in Preparing Virtual Learning

When getting ready for virtual learning, educators in physical education have a lot on their plate to ensure the lessons are useful, efficient, exciting and engaging for learners. Educators should construct exercises that may be completed at home with little equipment and modify the standard physical education curriculum to be compatible with a virtual setting. Become acquainted with online resources and technologies for teaching and monitoring the growth of learners. Make and distribute interactive materials, live-streamed seminars, and educational films. Creating plans that keep learners interested and engaged, including online group projects or augmented physical challenges. To encourage learners to participate, encourage them and provide feedback frequently. Creating tests that are capable of measuring levels of learners' sports participation, their progress in developing new skills, and their general level of physical fitness in a virtual setting. Utilise internet resources to gather and examine learner performance information.

Interactions between learners and their parents. Educators should keep in consistent, clear contact with parents and kids regarding timetables, goals, and achievements. To assist learners in overcoming any obstacles to engaging and being interested in virtual physical education programmes, provide them with resources and assistance. To keep current on emerging technologies and optimal procedures for virtual physical education, engage in ongoing professional learning. Work together to exchange knowledge and concepts with colleagues. Make sure that children can complete every activity safely in their homes and that it can be modified to accommodate learners of various skill levels. Ensure that every learner can access the classes, even those with restricted internet connection or equipment.

Outdoor areas might be developed for activities that require them in a variety of public facilities, including local and communal spaces, athletic organizations, and schools. The successful use of virtual teaching, particularly for physical education, involves the use of live-streaming software, video creation, online teaching tactics, and instructional methodologies. Thus, the government should enhance mobile network providers' capabilities and nationwide connectivity. Since not everyone can afford technological gadgets like laptops, smartphones, and desktops, the government, with the help of private organizations (sponsorships), must assist disadvantaged public schools and learners with the necessary equipment. Educators must possess substantial knowledge in creating online

courses and facilitating subject-specific online courses. McMullen, Kulinna & Cothran (2014) suggest that educators, educational instructors, and administrators from schools and districts, along with advocates of physical exercise can enhance their abilities and self-assurance using specialized training programmes. Aguinaldo (2021) states that currently, educators must also possess the skills necessary to set up a virtual classroom in which they may present courses utilizing a variety of instructional design strategies that boost engagement and motivation in online learning environments. It is essential to coordinate with online professionals and utilize the joint efforts of educators (Mottet, 2023; Siedentop, Dwyer, Mottet & Hastie, 2023). To determine the instructional value of online physical education courses, inspection-style assessments are required (Jeong & So, 2020).

CONCLUSION

This study found that with proper resources and well-prepared preparations, virtual physical education does contribute positively to raising learners' interest and engagement levels. This study was confined to the virtual physical education parameters. Based on the findings of this study, it is recommended that schools start their transition from conventional education to virtual education now, as this will allow them to grow in the field of virtual physical education as technology advances. Educators should be properly trained on how to navigate virtual technology and on how to engage and increase learner's interest. Schools should seek aid for proper infrastructure and resources around their environments to create a conducive environment for virtual physical technology to take place. Telecommunications organizations should increase network coverage to allow virtual physical technology to take place.

Further studies can be taken on the effects of virtual physical education on primary school versus high school. Differences in effects of virtual physical education between developed and developing countries. Modern physical education versus the traditional physical education. Virtual physical education is unlikely to occur completely virtually, in contrast to non-virtual education; instead, a hybrid approach combining virtual and non-virtual physical education might be preferred. Therefore, further research may be done on the effectiveness and implementation of hybrid physical education. Innovation in the teaching and learning of physical activities has been spurred by the move to virtual physical education. It can be enlightening to see the innovative ways in which physical education instructors address these issues and the tools they employ.

CONFLICT OF INTEREST

The author declares no conflict of interest.

AUTHOR'S CONTRIBUTION

Conceptualization, Methodology, Data Collection, Formal Analysis, Writing—Original Draft Preparation, Writing—Review and Editing by author. The author read and agreed to the published final version of the manuscript.

FUNDING/SPONSORSHIP

This study did not receive funding or any support from any institution.

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