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# Connected Fitness: Students' Views on Online Physical Education Learning

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A R T I C L E I N F O

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A B S T R A C T

This study aims to assess students' experiences in learning Physical Education in an online environment. A descriptive research design was utilized to evaluate the experiences of 615 college students enrolled in Physical Education courses during the second semester of the 2020-2021 academic year at a higher education institution in Northern Philippines, amid the COVID-19 pandemic. Participants were selected through stratified random sampling and provided feedback via a standardized questionnaire. Data analysis employed descriptive statistics, including frequency, percentage, and weighted mean. Findings revealed that students actively engaged with online Physical Education classes, primarily using cellular phones and laptops, reflecting adaptability to this learning format. While students reported difficulties in achieving skill improvement compared to traditional in-person classes, many noted a sense of personal progress and appreciated the support and communication offered throughout the online learning experience. These insights highlight both the challenges and successes of online Physical Education during an unprecedented time.

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**INTRODUCTION**

The entire world is currently in a state of catastrophe as a result of the coronavirus disease 2019 (COVID-19) pandemic, which has impacted people's daily lives on a global scale. Since the World Health Organization declared a pandemic on 11 March 2020, avoiding face-to-face interactions and practicing social isolation have become ingrained in daily life. Due to the suspension of education, the COVID-10 outbreak has had a detrimental effect on education. Millions of students' academic lives have been disrupted as a result of the schools' long-term closure. Therefore, educational institutions have attempted to preserve education's permanence through distance education, which frequently utilized synchronous or asynchronous online learning platforms, web-based, cloud-based, or technology-based learning applications (Sahin, 2021; Hushni Rahiem, 2021). In comparison to face-to-face education, distance education has a number of advantages and disadvantages as a result of systemic differences. The majority of private schools have chosen to utilize synchronous sessions via online platforms provided by Google and Microsoft (Osman, 2020). Teachers must be confronted with this rapid digital transformation and be required to adapt their teaching methods to network-based education. During this adaptation period, it is expected that some limitations will occur, particularly given the applied and socially active nature of physical education and sports.

Physical education (PE) delivery, like many other subject areas, has shifted to an online teaching mode (Daum, et. al., 2021; Varea & Gonzales-Calvo, 2020). This abrupt change is especially significant in PE, as it is a subject that has historically included physical body movements. PE teachers were required to redesign PE classes and restructure their schools' PE curriculums during the school shutdowns. Additionally, they may have needed to devise novel ways to keep students active, especially in the absence of sports facilities (e.g., equipment, field) and when their health was paramount during the pandemic. Numerous aspects of physical education must be carried out in this manner, including cognitive, affective, and psychomotor aspects, as well as how teachers' roles must remain creative even during this current pandemic (Randall & Griggs, 2021). Teachers must adhere to all government policies and devise strategies to ensure that learning occurs even when students study at home. Online learning is a type of education that makes use of multimedia technology such as virtual classes, animated online texts, voice messages, e-mails, videos, streaming videos, and conference calls. Massive scale learning is possible, and the number of participants is not limited. It can be conducted for free or for a fee (Goad, Killian & Daum, 2021).

The University of Saint Lous (USL), a CICM Higher Education Institution in the Cagayan Valley Region responded with the call of CHED with regards to the implementation of online learning. USL introduced four online learning modalities that are responsive to the needs of its students across all levels. These include the following: full online learning, blended learning, correspondence (Print) learning, and correspondence (Electronic print) learning. Of the four learning modalities of the university, blended learning and

full online learning were considered as the most preferred learning modality for the SY 2020-2021. In addition, full online learning modality has the most enrollees of the four. Additionally, the school utilizes a Learning Management System (LMS) as the primary platform for communicating with students, assigning and submitting learning tasks, and conducting concurrent major examinations. Each student and teacher are assigned a unique username and password to access the learning management system. Additionally, students are introduced to a variety of online learning platforms, including zoom, Google Meet, Discord, and Facebook Messenger.

In online learning, teachers were instructed to supplement their courses with additional materials and maintain close contact with students, especially those who had difficulty accessing the Internet. Owing to the rapid transfer of schools to online learning as a result of the COVID-19 pandemic, local and foreign questions have been raised about the quality of education and students' preparedness to deal with the new situation such as learning courses online which includes Physical; Education (Johnson, Daum & Norris, 2021; Mercier, et. al., 2021; Lander, et. al., 2020). Hence, this study was conducted to determine the assessment of students in learning Physical Education in an online environment.

## LITERATURE REVIEW

The spread of Covid-19 has had a profound effect on the economy, which is now beginning to recover, but the impact is still being felt in education. In a number of countries, including the Philippines, the decision was made to suspend all educational activities and those initiated by related institutions. The government must propose and implement alternative education for students and students who are unable to attend educational institutions. Several studies had been conducted looking into how physical education had been taught in an online setting.

The study of Jayul and Irwanto (2020) revealed the that online learning model makes physical education learning easier to keep going physical and theoretical activities by utilizing existing platforms. Kan and Zhou (2020) stressed that exercise manuals can provide solutions and convenience in physical learning; in addition to getting theory, one can also do physical movements by following the manual. Additionally, Basilaia and Kvavadze (2020) found in their research that online streaming courses give students theoretical and practice motion training forms, allowing them to continue learning physical education. Furthermore, the research by Herlina and Maman Suherman (2020) demonstrates that physical education instruction may still be carried out using a collaborative approach model, where parents and teachers collaborate to share information on children's growth while they are learning remotely. Teachers teach both theory and practice through online learning, and parents keep an eye on whether their kids complete the teacher-given assignments.

Mercier, et al. (2021) also stressed that Physical education learning can continue even in times like this, with small groups' formation to carry out physical education activities by maintaining distance and complying with

existing health protocols. Moreover, Valeria and Gustazo Gonzalez-Calvo (2020) revealed in their study that Physical education learning is currently experiencing changes to make teachers experience more pressure and emotions, where teachers are required to continue to make physical education learning both theoretically and physically using online media. In addition, Edson Silva-Filho, et. al. (2020) claimed that physical education teachers are considered essential health professionals during this pandemic period because they can guide and stimulate individuals to undertake regular physical exercise to maintain and improve their health and provide theoretical learning. Also, Lander et. al. (2020) stated that adaptive physical education teachers in carrying out learning to children with special needs experience obstacles in the implementation of adaptive physical education program practices and inadequate infrastructure so that teachers must be able to provide a way out for physical education learning to be carried out according to the objectives of adaptive physical education teaching itself.

Setiyawan, et. al. (2020) on one hand revealed that the current form of physical education learning is carried out by providing theory and practice by utilizing the digital platform provided so that physical and theoretical activities can be carried out in biological knowledge. On the other hand, Cseplo, et al. (2021) claimed that teachers and lecturers of physical education currently use e-learning a lot as their teaching material so that the theoretical and practical learning that you want to aim at is achieved following the learning objectives itself. And finally, Aguinaldo (2021) said that WFH (Work from Home) is currently carried out in physical education learning to prevent viruses from occurring. Learning is carried out from home by utilizing the teacher's teaching, both theoretically and practically. So that even if only at home, they are still productive and active.

## METHODOLOGY

The study made use of descriptive method to determine the assessment of the respondents in learning physical education online. This study was conducted at the University of Saint Louis, a CICM Higher Education Institution in Northern Philippines which implemented online learning as one of its learning modalities during the COVID-19 pandemic.

The respondents of the study were the 615 college students of the University of Saint Louis who were enrolled in Physical Education courses last Second Semester of School Year 2020-2021. Stratified random sampling was used to determine the total number of the respondents of the study.

Students' assessment in learning physical education in an online environment was measured using a standardized questionnaire developed by Yu and Jee (2021). The tool consists of 22 items and is divided into 5 items which include the following: Teaching Methods (8 items), design (4 items), implementation (3 items), summative evaluation (3 items), and formative evaluation (3 items). Furthermore, each item of the instrument used a 5-point Likert Scale that ranged from 1 – Strongly Disagree to 4 – Strongly Agree. Prior to the data gathering, all the standardized questionnaires underwent expert

checking and reliability test. Experts on research instrumentation, management and public administration were invited to check the content of the tool. After which, reliability test was conducted in which 10 respondents from other government agency served as participants. This is to ensure that the questionnaire was reliable and suitable to the current setting.

Data were analyzed using descriptive statistics such as frequency, percentage and weighted mean with the following mean ranges and qualitative descriptions:

Tabel 1. Mean Ranges and qualitative descriptions:

| Mean Ranges | Qualitative Descriptions |
|---|---|
| 4.21 – 5.00 | Always |
| 3.41 – 4.20 | Often |
| 2.61 – 3.40 | Sometimes |
| 1.81 – 2.60 | Seldom |
| 1.00 – 1.80 | Never |

## RESULT AND DISCUSSION

Table 2. Profile of the Respondents

| Profile Variables | Frequency | Percentage |
|---|---|---|
| **Gadgets Used in Online Learning** | | |
| Cellular Phone | 122 | 19.80 |
| Laptop | 101 | 16.40 |
| Tablet | 1 | .20 |
| Desktop | 14 | 2.30 |
| Two or more | 377 | 61.30 |
| **Source of Internet Connection** | | |
| Wifi | 460 | 74.80 |
| Mobile Data | 155 | 25.20 |
| **Learning Space at Home** | | |
| With Conducive Learning Space | 103 | 16.70 |
| With Learning space with minimal distraction | 345 | 56.10 |
| With learning space with a lot of distraction | 152 | 24.70 |
| No Learning space at home | 15 | 2.40 |

Table 2 presents the profile of the respondents. . It can be seen from the table that most (377 or 61.3%) of the participants used two or more gadgets using the online learning. 122 or 19.8% used just a cellular phone, while 101 or 16.4% used laptop. There was one (1) who used tablet, and 14 or 2.3% used desktop. This implies that the usual gadgets that the usual gadgets that the participants used in their online learning, were cellular phones and laptops, though most of them used a two or more gadgets. The use of gadgets in PE classes remains relevant even when the resumption of face-to-face classes is already in full. The use of gadgets could still be continued in PE classes, as ICT tools have been found out to have the potential to positively influence teaching and learning during PE lessons (Koh, et.al., 2021). A systematic review

conducted by Chuadhry, et.al. (2022), revealed that the use of gadgets has positive effect on the learning capabilities of students and ultimately contributing to their academic performance. Thus, the learners use of gadgets can still be of academically helpful, with the proper guidance provided to them about its utilization specifically in PE classes. Though, the use of gadgets may not be limited to PE classes only for it was empirically proven that the use of gadgets for various university subjects, was effective not only in improving academic performance but also in minimizing learning time (Borisova, et.al., 2016).

Meanwhile, majority of the respondents used Wifi, while there are 25.2% of them who used mobile data. This implies that the online learning scheme necessitates the installation of Wifi connections in households. In an online learning environment, it is important to ensure a stable internet connectivity, to also empower students to engage in effective virtual learning experiences, fostering continuous learning and academic success.

And finally, 345 or 56.1% of the respondents have a learning space with minimal distraction, while there are few (103 or 16.7%) have a conducive learning space., while only 15 or 2.4% of them have no learning space at home. This implies that, majority of the learners were not able to secure a completely conducive learning space. There could be different factors affecting the designing of a completely conducive learning space, but which could not specifically be identified in this study. The quality of the learning space can affect the overall learning experience of students. It is a critical component of the learning process, and contributes to a learner's performance, engagement, and overall success. It connects both students and professors in an active learning process (Borba, et.al., 2020).

Table 3. Assessment of the Respondents in their Physical Education Classes Along Design

| **Statements** | **Mean** | **Description** |
|---|---|---|
| Online physical education classes were conducted regularly. | 3.92 | Often |
| I took classes online using the forums, archives, and bulletin board. | 3.72 | Often |
| A team project or cooperative study took place. | 3.50 | Often |
| The online class was conducted using online media such as video editing and platform (use of a blackboard to upload video in online practical class). | 4.15 | Often |
| I interacted with my teacher during the online practical class. | 3.82 | Often |
| **Categorical Mean** | **3.82** | **Often** |

Table 3 presents the assessment of the respondents in the design of their physical education classes along design. It can be seen from the table that the learners assessed the regular conduct of online physical education, with a mean

score of 3.92. It is practically easier to meet students regularly in an online setting (Brown, 2020). The regularity of meeting has an effect on the behavior of learners towards PE online classes. It can promote a self-regulated behavior in students by let them set a regular time for them to concentrate on the course (Wang, et.al., 2013). Furthermore, the regularity of meeting the learners online could help establish their academic time management, which have many positive implications on their academic performance (Khiat, 2019).

Students reported taking classes online using various online platforms such as forums, archives, and bulletin boards, with a mean score of 3.72, suggesting that this method was also often utilized. Additionally, team projects or cooperative studies were a common occurrence in these classes, with a mean score of 3.50, indicating that they were often implemented. The discussion forum is integral to online classes and is a rich source of interaction, with the ability of promote social interaction, teaching presence, and cognitive learning (Aylwin, 2019). A computer bulletin on that other hand can boost student computer literacy, increase class time available for lecture/discussion, save time and money on reproducing and distributing materials, and permit more materials to be distributed to students (Adamu, 2015).

The online classes themselves were conducted using online media tools, such as video editing and a platform that allowed the use of a blackboard to upload videos for practical classes. This aspect of the classes received a mean score of 4.15, indicating that it was often employed. Students also reported interacting with their teachers during the online practical classes, with a mean score of 3.82, suggesting that such interactions were often facilitated.

The findings show that students had frequent experiences with online physical education classes. These classes were regularly conducted, making use of various online platforms and tools, and included opportunities for collaborative work. The findings highlight the importance of utilizing online media and facilitating teacher-student interactions to enhance the design and effectiveness of physical education classes conducted in an online format.

Table 4. Assessment of the Respondents in their Physical Education Classes Along Implementation

| **Statements** | **Mean** | **Descriptive Value** |
|---|---|---|
| There was an advance notice for the online practical class in the context. | 4.10 | Often |
| Was the part needed for the online practical class supported? | 3.85 | Often |
| A technical problem, error, or correction occurred after the online practical class. | 3.51 | Often |
| **Categorical Mean** | **3.82** | **Often** |

The respondents reported that there was often an advance notice for the online practical class in the context, with a mean score of 4.10. This indicates that the students were frequently informed in advance about the online

practical class, allowing them to prepare accordingly. Communication is important in the academic success of the learners. When they are informed ahead of time of what to do and the standard on the quality of their output, they would exert an effort to attain the standard along with the intention to obtain at least a passing score.

When it came to the support provided for the part needed in the online practical class, the respondents gave a mean score of 3.85, suggesting that this support was often available. It implies that the necessary resources or materials required for the online practical class were frequently provided or made accessible to the students. It is noteworthy that the support needed by the students is often available, for the effectiveness of the delivered support depends on the time it is offered or provided (Rotar, 2021). As the marketplace for higher education changes, attracting and retaining students is of utmost importance. Providing successful course delivery methods (e.g. face-to-face, full online, hybrid) offers an opportunity for schools to differentiate from each other. The potential to increase the value of online course delivery depends on the administration of significant support services (Robinson, 2017).

However, the respondents also reported that technical problems, errors, or corrections occurred after the online practical class, with a mean score of 3.51. This suggests that such issues were often experienced by the students, indicating that there may have been challenges or glitches that needed to be addressed after the class had taken place. The conduct of face-to-face classes is already allowed in schools, but the value of online practical class cannot be underestimated. It can still be beneficial for learners as studies (Owston et.al. 2019; Nambiar, 2020; Lane, 2013; Zeng et.al., 2018), suggest that the best means of conducting a practical class online involves a combination of online lectures and in-class tutorials, quality interaction between students and professors, technical support, structured modules, and blending online self-study with traditional classroom methods.

Table 5. Assessment of the Respondents in their Physical Education Classes Along Summative Evaluation

| **Statements** | **Mean** | **Descriptive Value** |
|---|---|---|
| There is a regular practice given for every physical education activity. | 3.77 | Often |
| The online practical class has been conducted at a level suitable for the learner's individual level. | 3.96 | Often |
| The online practical class was conducted as planned. | 3.95 | Often |
| Online class was effectively conducted. | 3.78 | Often |
| **Categorical Mean** | **3.87** | **Often** |

According to the findings, the respondents reported that there was often a regular practice given for every physical education activity, with a mean score of 3.77. This suggests that students frequently received opportunities for practice and reinforcement of their skills and knowledge in various physical

education activities. The regular practice can be an opportunity for the learners to be engaged in a physical activity, which could promote physical fitness (Lemes, et.al., 2021). The online practical class was reported to be conducted at a level suitable for the learner's individual level, with a mean score of 3.96. This indicates that the online classes were often tailored to meet the specific needs and abilities of the students, ensuring that the content and activities were appropriate for their skill levels. This implies further that while summative evaluation is generally intended to measure the attainment of a learning outcome, the level of the learner is still considered. The capacity or level of the learners is brought out for the attainment of the intended learning outcomes of the PE classes. This shows a learner-centered approach in teaching PE.

Similarly, the respondents reported that the online practical class was often conducted as planned, with a mean score of 3.95. This suggests that the classes were regularly executed according to the intended schedule and structure, ensuring consistency and adherence to the planned curriculum. This further emphasizes the critical role of teachers and/or curriculum developers to consider ways in which to design the written curriculum that increase the likelihood that the intended curriculum will be adhered to (Superfine, et al., 2015).

Additionally, the online classes were reported to be effectively conducted, with a mean score of 3.78. This implies that the instructional methods and strategies employed in the online classes were often successful in facilitating learning and engagement among the students. These results highlight the importance of providing regular practice, personalized instruction, and effective implementation to ensure a meaningful and successful summative evaluation of students' progress in physical education classes conducted online.

Table 6. Assessment of the Respondents in their Physical Education Classes Along Formative Evaluation

| **Statements** | **Mean** | **Descriptive Value** |
|---|---|---|
| The class goal was achieved through an online practical class. | 3.88 | Often |
| I improved my physical skills in every activity compared to face-to-face classes. | 3.24 | Sometimes |
| Personal progress was acquired every after the online practical class. | 3.66 | Often |
| **Categorical Mean** | **3.59** | **Often** |

According to the findings, the respondents reported that the class goal was often achieved through an online practical class, with a mean score of 3.88. This suggests that students frequently perceived that the objectives or intended outcomes of the class were successfully met through the online practical activities.

However, when it came to improving physical skills compared to face-to-face classes, the respondents reported a mean score of 3.24, indicating that this improvement sometimes occurred. This suggests that while some students experienced improvement in their physical skills through online classes, it may not have been as consistent or widespread as in face-to-face classes. On the other hand, personal progress was often acquired after the online practical class, as reported by the respondents with a mean score of 3.66. This suggests that students frequently felt that they made personal progress or advancements in their physical abilities or understanding as a result of the online practical class. Face to face class may really be more effective for the development of practical skills, but the benefit of online classes that allow multiple viewings should still continue to be recognized (Sekine, et.al, 2022). Although few studies have compared online and face-to-face learning environments, research results show that students who complete an online course fare just as well as those who attend face-to-face classes (Nennig, et al., 2020). Furthermore, online formative assessments are perceived as tools that promote self-directed learning (Nagandla, et al., 2018).

These results highlight the importance of setting clear class goals, facilitating personal progress, and exploring strategies to enhance skill improvement in online physical education classes to ensure a meaningful and effective formative evaluation of students' development and learning. The study of Lee (2021), indicated that the students perceived online learning as less effective than traditional face-to-face classes but overall were satisfied with the customized online course, specifically citing the instructor's prompt feedback, interaction among students, and effective design of tasks.

## CONCLUSIONS AND RECOMMENDATIONS

The study concludes that while students engaged with online Physical Education classes using various devices and internet connections, significant implications remain for the overall effectiveness of their learning experiences. Data indicates that most participants utilized multiple devices, particularly preferring cellular phones and laptops, highlighting their adaptability in navigating online education. Despite challenges in securing optimal learning environments, a majority reported sufficient support and regular communication—factors crucial for fostering engagement and success.

Although the perceived effectiveness of skill improvement in online settings was lower compared to traditional classes, many students felt they made personal progress. These insights underscore the need for ongoing enhancement of online Physical Education courses by integrating effective instructional strategies and establishing clear objectives to optimize student learning and engagement.

To address these challenges, several recommendations emerge. First, enhancing training for instructors is vital. Providing educators with empirical training on online teaching methodologies can significantly improve course delivery. Research shows that well-trained instructors can foster a more engaging and effective online learning environment, which can mitigate the

challenges identified in this study. Additionally, the development of a structured support framework is essential. Institutions should create systems that facilitate regular communication and offer resources tailored to online learning. Theoretical frameworks, such as the Community of Inquiry model, suggest that social presence, cognitive presence, and teaching presence are critical for successful online education. Finally, future research should delve into the long-term impact of leadership training for both students and instructors in online Physical Education settings. Leadership skills can enhance motivation, self-regulation, and peer collaboration, which are vital for sustained engagement and learning outcomes. Investigating these aspects will provide a deeper understanding of how leadership development influences not only immediate learning experiences but also long-term educational trajectories.

## ADVANCED RESEARCH

In writing this article the researcher realizes that there are still many shortcomings in terms of language, writing, and form of presentation considering the limited knowledge and abilities of the researchers themselves. Therefore, for the perfection of the article, the researcher expects constructive criticism and suggestions from various parties.

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