

**Original Article****Studying Demographic Variables of Clubs Virtual Sports  
in Social Networks****Nosratollah Abedini**

Assistant Professor, Faculty of Educational Sciences, Payame Noor University, Tehran, Iran

**Received:** 2024/07/22**Accepted:** 2024/10/22**Abstract**

Since the corona epidemic, the topic of virtual education has been widely discussed and entered in all fields, including physical education. In the post-corona period, this type of education has maintained and even expanded its special audience, so that we are currently witnessing the growth of virtual sports clubs in social networks. Therefore, in order to know the target market of this profession, sociological information about this group seems necessary. Therefore, the aim of this research is to study the demographic variables of virtual sports clubs in social networks.

The statistical population of this research was the participants of a women's virtual club in one of the social networks in the number of 800 people, of which 233 people were selected by simple random sampling method and their demographic information was obtained through an online form and received data. Were investigated by descriptive-analytical method. This study showed that exercising in the virtual club was satisfactory from the participants' point of view, considering that the vast majority of them achieved their goals.

Among the people who participated in the virtual club, the percentage of married people was much higher than single people, and young people in the age group of 20 to 40 years had the largest number of participants. The percentage of unemployed people was significantly higher than that of employed people.

There was no significant difference in the type of online or offline use of the meetings, but in the two-dimensional analysis of these variables with the variable of online or offline use of virtual sports, it was found that single people compared to married people, people with postgraduate degrees compared to other degrees. Education and age groups of 40 to 60 years were more interested in the offline method and flexible use of class time than other age groups.

**Keywords**

sports, physical education, demographics, social networks, offline or online.

**Introduction**

Scientific journals in the age of communication and information technology, social networks play a major role in shaping our behaviors and choices, so that even sports and physical education are not exempt from this rule. Virtual sports activities have been increasingly influenced by the strong presence of social networks.

In addition to the role these platforms play in motivating, providing access, and shaping people's sports experiences, individual circumstances will also be important. The Covid-19 pandemic, caused by the acute respiratory syndrome of the corona virus, had a profound effect on global education (Imamzadeh, 1400). According to reports, in 2020 and 2021, approximately 147 million children missed more than half of their face-to-face education days.

In Iran, schools and universities continued to teach by accepting the replacement of online classes and webinars with face-to-face lectures in traditional education. These preventive measures have led to a paradigm shift in providing education (Site and Forum, 1402). Rotten (2020) believes that it is necessary to conduct more studies on topics related to education innovations and learning innovations during the Corona pandemic. One of the opportunities

created during the Covid-19 pandemic is e-learning. With the spread of Corona and the various restrictions that were created for holding educational events, many educational centers related to the field of sports turned to virtual education with an emphasis on electronic education. Before the emergence of Corona, electronic education was considered as an educational option in the world, but the fact is that sports institutions never paid attention to this capacity as a priority.

With the spread of the corona virus, educational centers related to sports were forced to use this method of education as the best and most available method of education. Promotion of electronic education is important from two aspects: one is related to the development of new educational methods and the other is to strengthen the software and hardware infrastructure for electronic education. The use of online training along with offline training methods in order to continue the training process in different sports sectors has expanded rapidly. For this reason, many researches have been conducted in the field of sports and physical education in virtual space. In the internal research, in a research titled "identification of factors affecting the development of physical education and student sports" in a research titled "identification of factors affecting the development of physical education and student sports", Kwannet et al. Media, technology and information technology identified. Abdulahi and Partners (2018) in a research titled "Developing a model of effective factors in the effectiveness of virtual education in general physical education in the conditions of the Corona epidemic, paying attention to the way of presenting materials and electronic materials, expressing side points in the online teaching method as effective factors" Physical education virtual training course was introduced. Melanurozi and Partners (2023) in a research entitled the effect of exercise in virtual space on participation motivation and body image of female high school students in Tehran under the conditions of the Corona epidemic showed that exercise in virtual space on participation motivation and body image of female students Secondary education in Tehran has a significant effect. In external research, Hugh and Partners <sup>2</sup>(2022) proposed an approach to evaluate physical education classes in colleges and universities using machine learning that outperforms current models in terms of accuracy, weight, and computation time

D'Agostina and Partners <sup>3</sup>(2021) found differences in teachers' ratings of online physical education tools based on teacher gender, school level, and geographic location.

In this regard, Yuji and Partners <sup>4</sup> (2021) also concluded by conducting a research that for the successful implementation of effective online practical classes of physical education, timely feedback should be used, technical errors should be reduced, and learners should be continuously motivated. The findings of the research of Belvet and Partners (2020) showed that virtual sports programs have the same mental and physical benefits as traditional sports; therefore, engaging in virtual sports in the current situation can be a good alternative option, because before the spread of the corona virus Sports events and competitions were mainly followed in person. With the limitation of in-person sports and the increase of problems caused by holding sports events in person and of course the increase of hours that individuals and families spend at home, the trend towards virtual sports has increased (Jabri and Partners, 2020). O'Brien<sup>5</sup> and Partners. (2020) in a research titled Implicit Concepts for Virtual Education of Physical Education during the Covid-19 Pandemic period, reported that in order to better learn physical education, students should use educational aids along with physical contact to get feedback and guidance from the content production instructor. According to the facilities of the universities and the use of new and attractive methods for students.

In a research, Ning <sup>6</sup> (2021) presented a tool and an idea to improve the quality of teaching physical education courses in China and improve the overall quality assessment of students. Zeng<sup>7</sup> (2020) presented a model to improve the accuracy of physical education teaching quality assessment in colleges. Yu<sup>8</sup> (2020) in an article titled Analysis of Online Classes in

Physical Education during the Covid-19 Pandemic concluded that timely and quality feedback is required for the successful implementation of communication with open platforms in Physical education should be presented. In the conducted surveys, no research was found regarding virtual clubs in virtual networks, and this research gap motivated this research.

This research tries to use the data obtained from a virtual club to examine demographic variables such as age, employment status, education and the degree of achievement of people's goals and the type of use (online or offline) of the exercise class in order to help the coaches and The officials of this area should provide a real insight of the audience to create virtual sports clubs in social networks so that they can make decisions about how to form sports classes according to the conditions of their audience.

Therefore, the effort of this research is to provide a real view of social network users and optimal use of these platforms to form virtual classes in the field of physical education; Because in this technological era, understanding how our choices are influenced by virtual space is an inevitable necessity to take a step towards a healthier and more active life.

Therefore, the main goal of this research will be to study the demographic variables of virtual clubs in social networks and their effect on the choice of the type of education (online or offline), which will be done in the form of two sub-goals as follows:

1-Studying the demographic variables of virtual clubs in social networks

2-The relationship between the demographic variables of virtual clubs in social networks and the choice of the type of education (online or offline)

## **Method**

To achieve the goal of this research, which is to study the demographic variables of virtual clubs in social networks, a women's virtual club in one of the social networks was selected as an available sample. After the monthly registration, this club gathered all the registrants in a private channel on one of the social networks and held its classes live three days a week at specific times (10 am).. In addition to holding online and live, he recorded the meetings and made them available on his channel for up to 24 hours so that those who could not use the live and online meetings at a certain time, could use the offline meetings at a time that suits their opportunity. The target class had 800 participants.

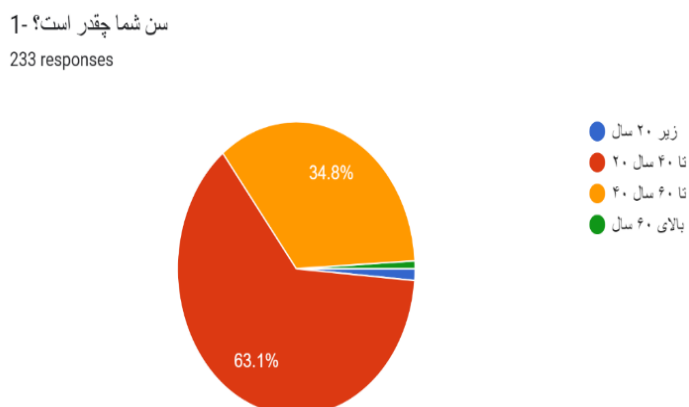
In order to extract data, an online questionnaire was designed in Google Form, and its link was placed on the club channel at the end of the course with the cooperation of the coach, and everyone was asked to answer it. Until the closing of the monthly class channel, 233 answer sheets were received and data collection was done. To analyze the data, descriptive statistics of the demographic variables of the participants were first presented to determine which groups are interested in virtual sports and use it.

In this research, demographic variables such as age, marital status, education, being employed, and the degree of achievement of goals and online or offline usage and the frequency of each of these variables were investigated in the studied virtual sports club class. Then, the relationship between the variables of age, marital status, education, being employed, and the degree of achievement of goals on the variable of offline or online use of sports was investigated and their two-dimensional tables were determined, and the results were presented in the form of graphs for better observation and comparison.

## **Findings**

A-Studying the demographic variables of virtual clubs in social networks

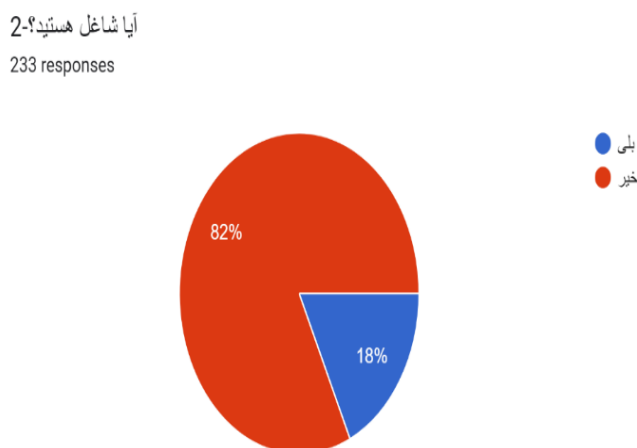
### **1- Check the age of the participants**



**Figure 1.** Age of participants

As you can see in Figure 1, the largest number of participants are 20 to 40 years old with 63% followed by 40 to 60 years old with 34%. The lowest number of people in the virtual club were people under 20 years old and over 60 years old, and the reason for this could be the lack of participation of this age group in the virtual space.

## 2- Examining the employment status of the participants

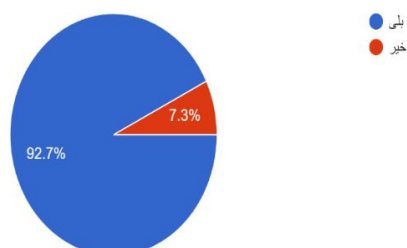


**Figure 2.** The employment status of the participants

In this question, we check whether the participants are employed. As you can see in Figure No. 2, the number of people who are not employed by registering the answer No is 82% and those who are employed by answering Yes are 17% of the participating people. Therefore, those who are not employed had the most participation in virtual sports than those who are employed or employed.

### 3-Check the marital status of the participants

آیا متأهل هستید؟ - 3  
233 responses

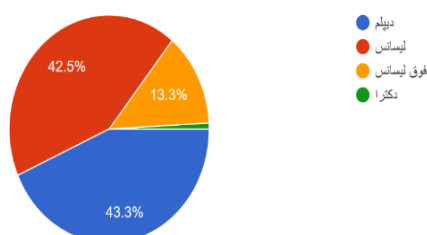


**Figure 3.** Status of the participants

As can be seen in Figure 3, most of the participants, 92%, were married, and in response to this question, they chose the yes option, and there were only 7%. Therefore, married people have welcomed the virtual club much more than single people.

### 4-Examining the level of education of the participants

میزان تحصیلات - 4  
233 responses

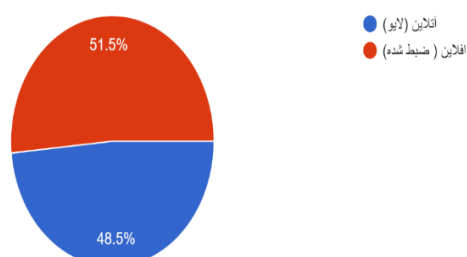


**Figure 4.** Level of education of the participants

In the diagram of Figure 4, virtual sports are examined in terms of the level of education of the participants. According to the level of education of the participants, 43% had a diploma, 42% had a bachelor's degree, 12% had a master's degree, and a small number of doctorates. As can be seen, the amount of use of virtual sports in diploma and bachelor's degrees is almost equal, and in the postgraduate level, the amount of use of virtual sports is far less than in diploma and bachelor's degrees.

### 5-Checking the choice of usage type (offline or online)

در این دوره بیشتر با کدام روش ورزش کردید؟ - 5  
233 responses



**Figure 5.** Choice of offline or online sports by participants

According to the graph shown in Figure 5, 48% of the participants in the virtual club chose the online (live) method and 51% chose the offline (recorded) method, which indicates that offline sports are more used than online sports. . Perhaps because the participants of the online method have to use it at a certain time, but in the offline method, due to the live recording, they can exercise at any hour according to their interest and busyness.

### 6-Checking the choice of exercise time

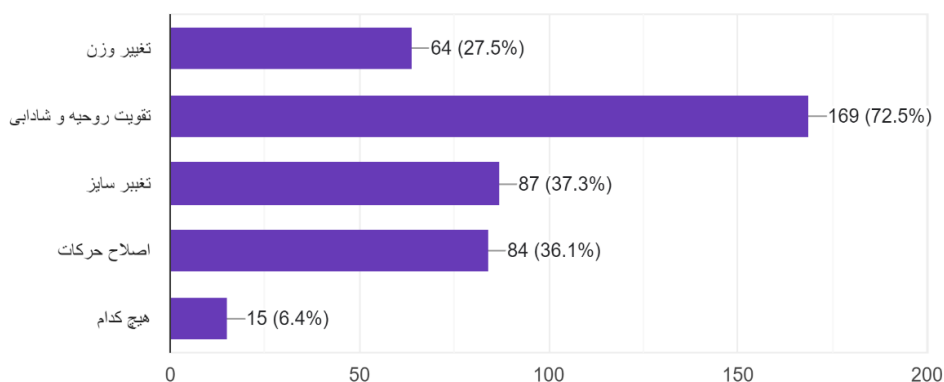


**Figure 6.** Choice of exercise time by the participants

According to the diagram in Figure 6, we can see that 64% of the participants devoted the morning and 35% of them in the afternoon to exercise, and this shows that in the morning, a higher percentage of people exercise than in the afternoon. They do exercise, of course, one of the reasons may be holding a live meeting (online) in the morning.

### 7-Checking the number of people who have reached the set goals.

در مدت این یکماه ورزش مجازی، به کدامیک از اهداف خود رسیدید؟-۷  
233 responses



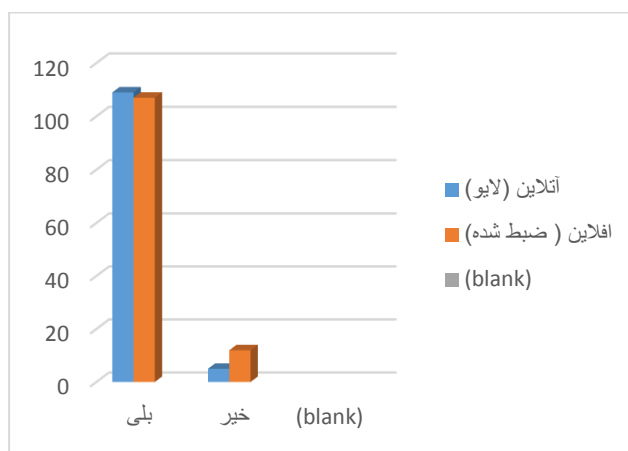
**Figure 7.** The number of people who have reached different goals at the end of the course

According to the obtained values, 27% of people, i.e. 64 people, chose the option of weight change (obese or thin), and this means that they have experienced a suitable exercise program with the aim of fitness and strengthening physical strength and endurance. The option to boost morale and vitality, with 72 percent, i.e. 168 people, has the highest percentage. Since exercise relieves tension and stress and strengthens physical and mental energy, and by releasing endorphin hormones, it promotes well-being and good feeling, this statistic means that virtual exercise has been effective in this field. Size change has also been seen in 37% i.e. 87 people, which usually happens with the loss of fat mass and increase of muscle mass

in the body, and this case also shows the usefulness of virtual exercise for people. 35% means 83 people have chosen the option of correcting movements. This means that these people had movement problems due to muscle weakness. And they were able to be treated by performing correcting movements and proper exercise, and this again shows the usefulness of virtual exercise for this group of people. Only 6%, i.e. 15 out of 233 people did not reach their goals and this shows a good success for a virtual club.

**B-The relationship between the demographic variables of virtual clubs in social networks on the choice of the type of education (online or offline)**

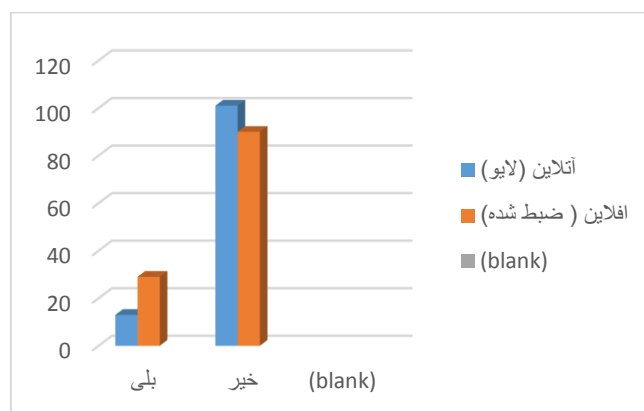
**1-Examining the effect of marriage in choosing online or offline sports**



**Figure 8.** Marriage and online and offline use

As can be seen in Figure No. 8, married people did not have much difference in choosing to be online or offline and chose live sports with a slight difference, but single people, unlike married people, showed more interest in offline sports.

**2-Examining the effect of being employed in choosing online or offline sports**

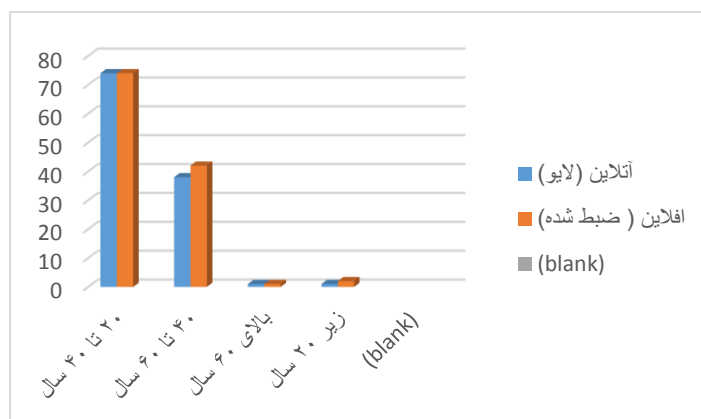


**Figure 9.** Effect of employment status on offline or online use

As you can see in the diagram of Figure No.9, the number of people who are employed or employed is a small percentage, of which 30 people chose online sports and 10 people chose offline sports, so more working people turned to online sports. People who were not employed

formed a higher percentage of virtual sports, among them 100 people participated online and 90 of them offline. Therefore, people who are not working showed more interest in online or live method.

### 3-Examining the effect of age in choosing online or offline sports

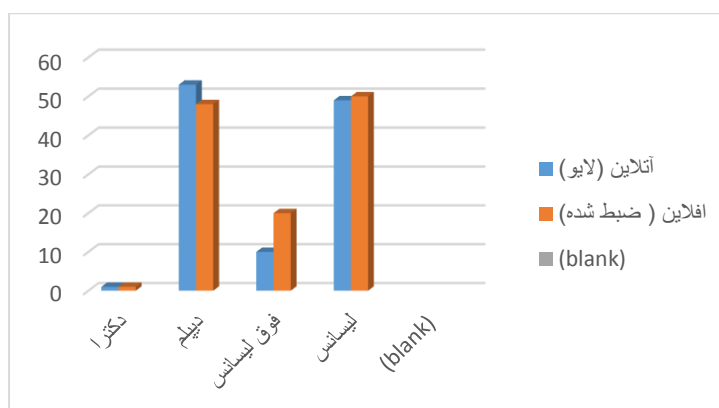


**Figure 10.** The effect of age on the choice of online or offline sports

In the diagram of figure No. 10 online and offline sports in different age groups, it can be seen that 70 people from the age group between 20 and 40 were the most welcome in virtual sports. By comparing the online and offline groups in this age group, we find that the number of those who exercise online is equal to those who exercise offline in this age group. In the age group between 40 and 60, which has a smaller number, those who exercise online are less compared to people who have exercised offline in this age group. There were fewer people under 20 years old in this virtual sport. This may be due to the time limit and dealing with academic matters at this age.

The lack of participants over the age of 60 can also be due to the loss of maintaining balance and posture (dynamic and static) in the body and the decrease in flexibility and range of motion in the joints.

### 4-Examining the effect of education in choosing online or offline sports



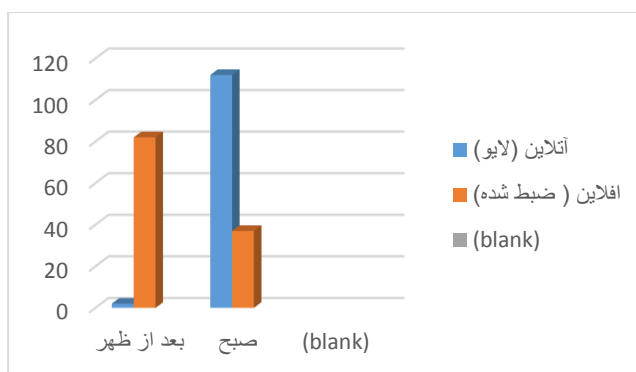
**Figure 11.** The effect of educational status on the choice of online or offline sports

As you can see in Figure No. 11, the number of people who participated in live sports was more in the diploma level, which had the most participants, but this difference was not much, but among the participants in the postgraduate level, the number of those who The sessions



were recorded and used offline. Almost equal numbers of people used both methods in bachelor's and doctoral degrees

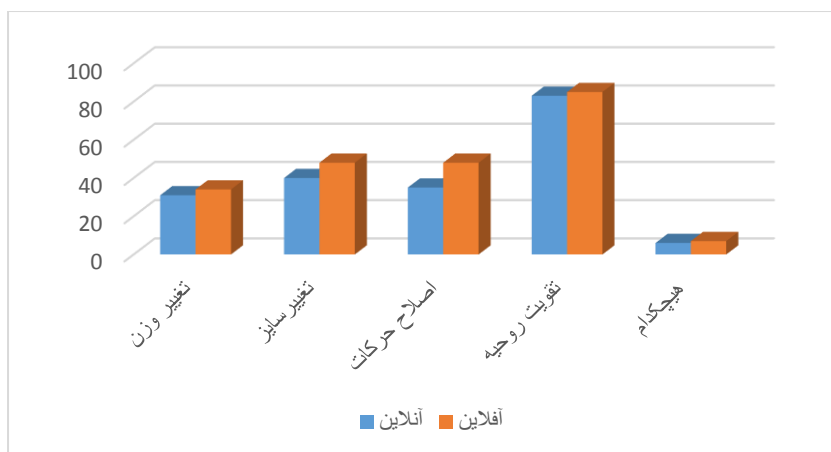
**5-Examining the effect of time in choosing online or offline sports**



**Figure 12.** The effect of time in choosing online sports or Afla

As it is clear in Figure 12, the people who exercised in the morning were mostly live and online, which is normal because of the live class held in the morning, and for this reason, the number of people who exercise online in the afternoon is zero. Been. But in addition to the people who exercised in the afternoon, even though the class was held in the morning, still a significant number of people preferred to watch and use the recorded class in the morning, which could be due to the flexibility of the class time The offline method can be the one that gives the participants more freedom of action.

**6-Examining the effect of achieving goals in choosing online or offline sports**



**Figure 13.** Examining the effect of achieving the choice of online or offline sports

By asking this question, as it is clear in the diagram of Figure No. 13, only a very small number of 6% of the participants could not achieve their goals, and in this group, there is no difference in how they use the class. Among the rest of the goals that were obtained for the participants, strengthening the spirit and achieving freshness had the highest achievement rate, in which online or offline use did not differ much, and offline users were marginally more. But in the goal of "improving movements", the number of those who were able to improve their movements through offline exercise was more than those who achieved this goal online and live.

## Conclusion

In this research, the data was obtained from the completion of 233 questionnaires by people participating in a virtual club. Examining the demographic data in this club in the first stage shows that more than 93% of the people participating in the class have reached their desired goals and had positive feedback. Therefore, it can be said that virtual sports are useful for the vast majority of participants and the social network has been able to play a suitable role as a suitable platform for this. However, comparing different sociological groups, it was found that married people participated more than single people and unemployed people participated more than working people in the virtual sports class. Also, people in the age group of 20 to 40 years and people with diploma and bachelor's education had the largest number of participants. Most people preferred the morning time for exercise and there was no significant difference in the type of use in the total number of people who exercised online or offline. Among the various goals that the participants had achieved; The option of change of mood and freshness had the highest number. All in all, these results indicate that virtual sports classes can maintain a level of participation compared to face-to-face sports classes, and in the second part of the research, considering that in the general review, the type of use (online/offline) no usable information was obtained, we examined this variable in more detail and along with each of the other demographic variables. In the results obtained, it was found that single people in comparison with married people and postgraduate group people in comparison with other levels and people in the age group of 40 to 60 years compared with other age groups are more into the type of offline use and flexibility of time. They showed interest in their own sports. These results can provide a basis for educators, policymakers and researchers to make appropriate decisions in choosing the type of virtual classes for different audiences and to increase the quality and accessibility of physical education programs and a positive learning experience. and cultivate influence for the general public.

Overall, this research adds valuable insights to the ongoing discourse surrounding skill training in physical education. These findings highlight the potential of digital platforms and social networks to enhance the educational experience in physical education courses, but further studies and ongoing evaluation are needed to refine instructional strategies and ensure continuous improvement of physical education courses in online environments. Social is necessary.

## References

- [1] Imamzadeh, Rahman. (2020). Examining the transferability and transmission methods of Covid-19 as a respiratory virus, National Conference on Natural Products Effective on Respiratory Infections.
- [2] Melanoruzi, Kivan; Syfi, Azadeh. (2023). The effect of exercise in virtual space on the participation motivation and body image of middle school female students in Tehran under the conditions of the Corona epidemic. *Communication management in sports media*. doi: 10.30473/jsm.2023.65692.1678
- [3] Abdullahi. Mohammad Hassan. Gholami Trekslovy. Sajad . The Abbasids Mehdi. (1400) Compilation of the model of effective factors in the effectiveness of virtual education of general physical education course in the conditions of the corona epidemic. *Research in educational sports*. 25 (9).
- [4] Contentment. Morteza. Talebpour Mehdi. Heidary. Reza . Flowery. Mahnaz (1401) Identification of factors affecting the development of physical education and student sports (case study: Razavi Khorasan province). *Research in educational sports*. 29(10).
- [5] Jabri, Akbar; and Mazloumi Suini, Farzaneh (1400). Identifying the opportunities caused by the Covid-19 pandemic in the field of sports. A thematic analysis. *Sports Management Studies*, 13(68), 171-196. 10.22089/smrj.2021.9570.3227: digital ID

- [6] Ratten, V. (2020). Coronavirus (Covid-19) and the entrepreneurship education community. *Journal of Enterprising Communities: People and Places in the Global Economy*, 14(5), 753-764.
- [7] Blauwet, C. A., Robinson, D., Riley, A., MacEwan, K., Patstone, M., & Dubon, M.
- [8] E. (2020). Developing a virtual adaptive sports program in response to the COVID19 pandemic. *PM & R: The Journal of Injury, Function, and Rehabilitation*, 13(2), 211-216.
- [9] Benfer, E. A., Vlahov, D., Long, M. Y., Walker-Wells, E., Pottenger, J. L. Jr., Gonsalves, G., et al. (2021). Eviction, health inequity, and the spread of COVID-19: housing policy as a primary pandemic mitigation strategy. *J. Urban Health* 98, 1–12. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7790520/>
- [10] 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, 716566. <https://www.frontiersin.org/articles/10.3389/fspor.2021.716566/full#:~:text=Conclusion%20Future%20research%20to%20promote,education%20among%20diverse%20student%20groups.>
- [11] Dunton, G. F., Do, B., & Wang, S. D. (2020). Early effects of the COVID-19 pandemic on physical activity and sedentary behavior in children living in the US *BMC Public Health* 20: 1351. <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-020-09429-3>
- [12] Hu, C. (2022). Evaluation of physical education classes in colleges and universities using machine learning. *Soft Computing*, 26(20), 10765-.37701
- [13] Ning, G. (2021). Evaluation Criteria for Quality Education of Physical Education Lessons Based on Logical Analysis. *International Journal of Emerging Technologies in Learning (iJET)*, 16(21), 87-99 <https://link.springer.com/article/10.1007/s00500-022-06983-3>
- [14] Schulz, Amy., Mehdipanah, R., Chatters, L. M., Reyes, A. G., Neblett, E. W. Jr., and Israel, B. A. (2020). Moving health education and behavior upstream: lessons from COVID-19 for addressing structural drivers of health inequities. *Health Educ. Behav.* 47, 519–524. <https://pubmed.ncbi.nlm.nih.gov/32408770/>
- [15] Zeng, Y. (2020). Evaluation of physical education teaching quality in colleges based on the hybrid technology of data mining and hidden markov model. *International Journal of Emerging Technologies in Learning (iJET)*, 15(1), 4-15. <https://online-journals.org/index.php/i-jet/article/view/12533>
- [16] Yu, J., & Jee, Y. (2020). Analysis of online classes in physical education during the COVID19 pandemic. *Education Sciences*, 11(1), 3. <https://www.mdpi.com/2227-7102/11/1/3>.

**COPYRIGHTS**

© 2024 by the authors. Licensee PNU, Tehran, Iran. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International (CC BY4.0) (<http://creativecommons.org/licenses/by/4.0>)