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Evaluation of Participants' Opinions on Online Physical Fitness Training

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Abstract
The purpose of this study was to evaluate the opinions of online participants on physical fitness training during the years of 2017-2018. In this regard, opinions of 347 online participants were obtained through structured questionnaires. The responses of participants were reviewed and analyzed with the help of smart-PLS. The duration of this training was 8 weeks and participants were asked about changes that occurred in their mind and body during the entire training process and what opinion they formed about the training program. The findings reveal that the training education expectations of participants was exceedingly met in general and that it enhanced their motivation and physical strength levels to a great extent. All the participants admitted that training education was successful and that it made a positive impact on their opinions.
Keywords: Online education, Physical fitness, online physical fitness, mobile learning, training

Introduction

With the rapid development of technology (Kurniawan, Eva, & Dafip, 2020), online education has entered every domain of learning and knowledge(Yehya, 2020). Online courses and online training certificates are abundant on online platforms (Odabasi, Uzunboylu, Popova, Kosarenko, & Ishmuradova, 2019; Vezne, 2020). Today with the developing technology, physical fitness has received a great change and improvement in its form and content. Apart from very effective training being offered in fitness centers through equipment and machines, computer and mobile technology has also moved into the online platform. Fitness has been given a new meaning. It is no longer confined to fitness centers but it can be accomplished anytime , anywhere through portable communication devices (Bagriyanik & Karahoca, 2016; Dobrescu, 2018).

Internet has enabled education to reach the desired success, and by achieving this success, it provides substantial benefits for a change. It is vital to provide distance education or e-learning at the ideal rate in education institutions (Kanbul & Güldal, 2019; Ventura, 2018). Today, mobile learning is one of the learning systems commonly used in all fields of knowledge. It is defined as learning through mobile technologies. Students can build up an educational environment through the internet network and by using mobile technology devices like computers, smartphones, e-readers, tablets, and PDAs or personal digital assistants.

Use of technology, especially in learning environments is substantially beneficial (Inaltekin, 2020). Technology entering into education and in the field of training brings many benefits together (Bartek & Nocar, 2018). For instance, online or digital learning is cost effective, makes education more straightforward, reduces the learning time and gives place to personal characteristics (Abdi & Sharyati, 2019). Moreover, technology can be effectively designed with the aim of providing training for appropriate learning needs and improve the training quality. For instance, digital videos have a potential to become effective teaching and learning resources for both students and teachers. A common use of such videos in daily life, has really is a good example of the use of technologies in the field of education.

Bicen and Beheshti (2019) define physical fitness as the ability to carry out activities successfully. To improve physical fitness and meet the fitness needs, it is important to prepare an effective exercise program and create an appropriate physical fitness environment. Fitness also means "suitability for health" and being fit also means being balanced and proportional.

In a study conducted by Danusso, Testa, and Vicentini (2010), design models are used to correctly design education-training processes. One of the most common models of education design is the ADDIE model, which is the combination of: Analysis, Design, Development, Implementation and Evaluation. These terms show steps or a gradual iterative process. The study was a literature review of studies conducted between the 2009-2015, and which had used the ADDIE model. The model was used to figure out the relevance of the processes of technological aspects of distance learning through educational multimedia, tool development, educational web sites, etc.. Yaman and Ozcinar (2020) also examined a few studies and trends on 'instructional design' between 1995 and 2016. They found that instructional design is among the areas frequently researched.

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Depending on the social network synthesis, it is much easier to structure and explain the Distance Training Programs. Fedewa and Ahn (2011) Mentioned in their study that insufficient physical exercise and insufficient physical fitness in children, adolescents and adults increase the risk of obesity and many diseases. . This study is a comparative study to evaluate physical fitness, life quality and posture development of grade 4 and 5 students in public and private primary schools.

Guthold, Stevens, Riley, and Bull (2020) Conducted a descriptive research and obtained students' opinions about the arrangements of learning environments and the extent to which blended learning supported during geography lessons as compared to face to face learning. A sample of 52 Grade 9 students was divided into small subgroups to collect their opinions. Semi-structured and open-ended questionnaires were designed about blended compared to face to face to understand the extent to which virtual classroom implementation supported learning. The findings revealed that one section of students was not comfortable during the virtual classroom implementation because of the voice, image and Internet speed and other technical problems.

A similar study by Yolcu (2015) titled as "Blended Learning and Implementation Principles" suggested how to eliminate the deficiency of social interaction in distance learning and to make the opportunities of face-to-face learning more effective by using the blended learning. The study collected qualitative data with two different semi-structured interview forms developed by the researchers. The findings of the study concluded that teacher training should be carried out at schools where teachers are appointed the training should include observing multi-grade classes to understand the problems faced by students as well.

Literature Review

The creation and maintenance of physical fitness among business personnel, professionals, athletes, students, and soldiers is a hot topic for researchers, academics, and practitioners. There is a comprehensive discussion on the matter of the antecedents of physical fitness and its positive effects on the performance of people. Physical fitness is the condition of health and physical well-being, particularly the capability to perform different aspects of profession, sports, and routine activities. Fitness can also be defined as the state of being healthy and fit to assist sportsmen, learners, professional people, and general people to undertake their functions and general activities in a better way (Cattuzzo et al., 2016). As per its importance in different social, professional, and industrial departments, different education and training courses are launched, especially not only manually, but with the application of relevant technology.

A long investigation and research has proved that the emerging availability and usage of internet facilities have brought a significant improvement in both economic and social sectors. Nowadays, education for attaining physical fitness and training in this regard is being provided via the internet and related technology across the world. Both online education and online physical fitness training play a key role in attaining and maintaining physical fitness in people, which is crucial to make them work in a better way as a healthy person has more capacity to perform his duties (Owen, Smith, Lubans, Ng, & Lonsdale, 2014). Moreover, a physically fit person enjoys work with sound health and mentality. Furthermore, the use of technology and internet facilities has provided education and training in a better way than through manual methods. Online education and online physical fitness training have successfully created motivation among users to perform their fitness activities and thereby they can achieve physical fitness to improve their professional and routine activities (Torrijos-Niño et al., 2014).

Today, to compete with rivals in any field, an individual should be physically fit and enjoy well-being. If individuals are active and also aware of the importance of physical activities and physical fitness, it will enable them to be physically fit. It is therefore important that individuals should develop awareness and knowledge of physical fitness and its advantages and disadvantages since childhood or at least from teenage, though it does not require any strict age limitations.

Staiano and Calvert (2011) Observed that very few school systems teach courses on physical fitness and physical activities. These school systems are still limited to particular countries. There is also a specific time period to get this education which further limits its scope. But online education has crossed these boundaries and limitations and promoted a sense of physical fitness not only in youth but also in older adults. Online education has also reduced time limits and one can acquire knowledge about physical fitness at his or her own pace and convenience(Fedewa & Ahn, 2011). Prior to introduction of online system, different classes were being launched in addition to regular school courses to create awareness about the physical fitness and provide them complete knowledge. But these classes were costly which middle class individuals could not afford. Online education is comparatively less expensive so many people now can achieve physical fitness and acquire proper knowledge and awareness through online methods about fitness education. Several online platforms have been launched to provide education on physical fitness having different features. Each online education platform is better than the previous ones in terms of speed, accuracy of knowledge, validity, cost reduction, and convenience. Hence, online physical education facility has improved physical fitness in both adolescents and adults by creating physical fitness awareness in them (Jarani et al., 2016).

Based on these reviews and to validate the findings, the current study frames the first hypothesis:

H1: There is a positive relationship between online education and physical fitness.

Generally, physical fitness training is referred to as physical exercises for healthcare while physical exercises are a set of physical activities that are planned, adequately structured, repetitive, and are voluntarily performed to improve one or more aspects of physical fitness. In this regard, many organizations like gyms and training centers carry out physical activities that are beneficial for achieving physical fitness (Mead & Bernhardt, 2011). These physical training centers need to be visited regularly and are mostly expensive. There is an also specific timing of these physical

fitness centers. It is therefore difficult to join these training centers due to costs and timing issues, though many have the need and desire to avail these services. These issues, however, do not exist in online physical fitness training platforms. According to Stegen, Derave, Calders, Van Laethem, and Pattyn (2011), online physical fitness training are available at any time and less cost as compared with general physical fitness training centers. Also, there is no need for a specific place for such online physical fitness training, thus online physical training has removed hurdles in the path of physical fitness activities and promoted physical fitness in both adolescents and adults. This has contributed to enhancing their physical fitness efforts and encouraged them to perform their activities well.

There are at least three types of physical fitness training programs carried out online namely (1) Cardiorespiratory training (2) Resistance training and (3) Mixed training. Cardiorespiratory training improves cardiorespiratory fitness which is the ability of the body to transport and utilize oxygen. It is generally expressed as maximal oxygen uptake (VO2 max). Resistance training helps to improve muscular strength and muscle power to undertake most forceful activities. Mixed training refers to the combination of cardiorespiratory training and resistance training. All types of training programs carried out by online physical fitness training have the power to affect the body composition in a positive manner and improve the flexibility of muscles (Karstoft et al., 2013).

Hence the second hypothesis of the study is framed as under:

H2: Online physical fitness training is positively linked to physical fitness.

Education plays a crucial role in creating motivation or arousing its level to perform particular activities in a better way as it creates awareness in students and removes complexities from their mind. Now with the introduction of online education, they can focus on their education in a better manner. It is now much easier for them to acquire accurate and enough knowledge on any particular topic. The accuracy, clarity, and comprehensiveness of knowledge acquired through online methods make both adolescents and adults ready for life and enable them to pay full attention to the relevant tasks (Farholm & Sørensen, 2016). At the same time, motivation enhanced by the awareness of physical fitness through online education facility also enables adolescents as well as adults to maintain physical fitness. In online education, more than one platform can be used to acquire knowledge regarding physical fitness. It can also be shared by multiple researchers, authors, and experts, which can further be used in the practice of physical fitness. Knowledge acquired thereby creates confidence and motivation in them Online physical fitness programs train people on how to plan, structure, and repeat physical activities. It makes them ready for achieving a high level of physical fitness. Motivation is also very important to perform their cardiorespiratory fitness and muscular fitness (Ball, Bice, & Parry, 2014). Hence, the hypotheses framed are as under:

H3: Motivation plays a mediating role in online education and physical fitness.

H4: Motivation also plays a mediating role between online physical fitness training and physical fitness.

Methods

Objectives of the study

The main objective of this research is to observe the results of physical fitness training given to the participants through online education methods. The study also aims to evaluate the obtained opinions of the research participants about online physical fitness training. The study also aims to review the differences or similarities that exist between opinions of the participants.

Data Collection Tools

A structured questionnaire was used to collect the data from respondents of this study. These questionnaires were distributed to respondents, who were selected by using simple random sampling method. A total of 680 questionnaires were sent by mail but only 347 were returned and used for analysis purpose. This represented about 51.03 per cent of the total number. The data collected from the research were analyzed by using the smart-PLS because the study required hypotheses testing. In addition, the variables adopted by the study included two predictors such as online education (OEDU) which had thirteen items, while online physical fitness training (OPFT) had five items. Moreover, motivation (MV) used as the mediator had four items (Lonsdale, Sabiston, Taylor, & Ntoumanis, 2011). Finally, physical fitness (PF) taken as a dependent variable had five items (Nor Syahila, 2018). Figure 1 shows a theoretical model showing the relationship between variables.

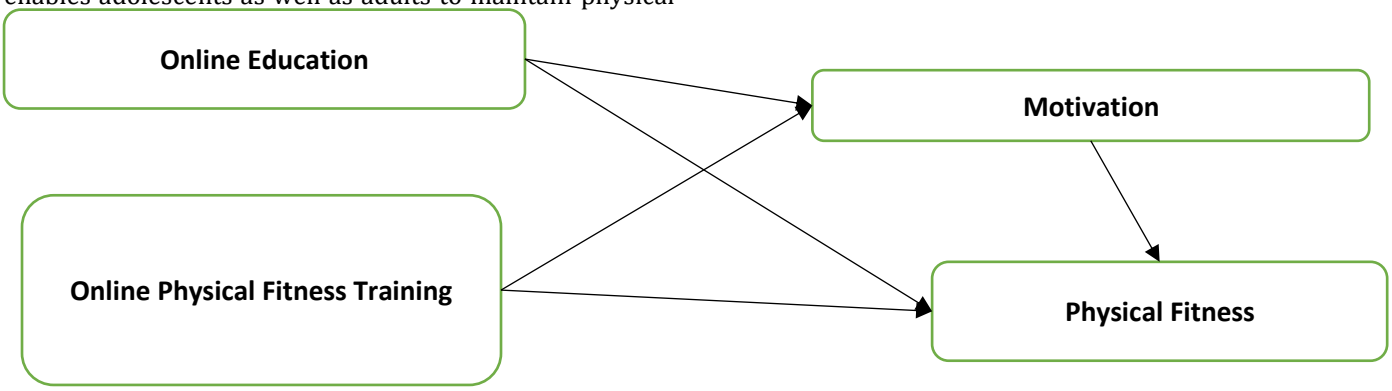

Figure 1: Theoretical model

Results

The results of the ongoing study show the assessment of measurement through a structural model. The assessment of measurement model includes the assessment of convergent along with discriminant validity. The assessment of the structural model also includes hypotheses testing with the help of path analysis. Firstly, convergent validity was checked to measure the correlation among items. The figures highlighted all the standards such as loadings and AVE higher than 0.50, while Alpha and CR larger than 0.70. These were the indications of valid convergent validity and high association among items. The convergent validity values are highlighted in Table 1.

Table 1: Convergent validity

Items	Loadings	Alpha	CR	AVE
MV1	0.868	0.905	0.933	0.778
MV2	0.875			
MV3	0.900			
MV4	0.884			
OEDU1	0.856	0.957	0.962	0.662
OEDU10	0.837			
OEDU11	0.802			
OEDU12	0.797			
OEDU13	0.708			
OEDU2	0.777			
OEDU3	0.751			
OEDU4	0.850			
OEDU5	0.812			
OEDU6	0.845			
OEDU7	0.809			
OEDU8	0.863			
OEDU9	0.850			
OPFT1	0.877	0.959	0.968	0.859
OPFT2	0.940			
OPFT3	0.941			
OPFT4	0.936			
OPFT5	0.937			
PF1	0.816	0.889	0.918	0.693
PF2	0.861			
PF3	0.829			
PF4	0.817			
PF5	0.838			

Secondly, discriminant validity was checked to measure the correlation among variables. Figure 2 highlights that all the standards were fulfilled as revealed form the values of Heterotrait Monotrait (HTMT) ratios which are lower than 0.90. These are the indication of valid discriminant validity and low association among variables. These values are highlighted in Table 2.

Table 2: Discriminant validity

	MV	OEDU	OPFT	PF
MV				
OEDU	0.481			
OPFT	0.183	0.170		
PF	0.441	0.536	0.215	

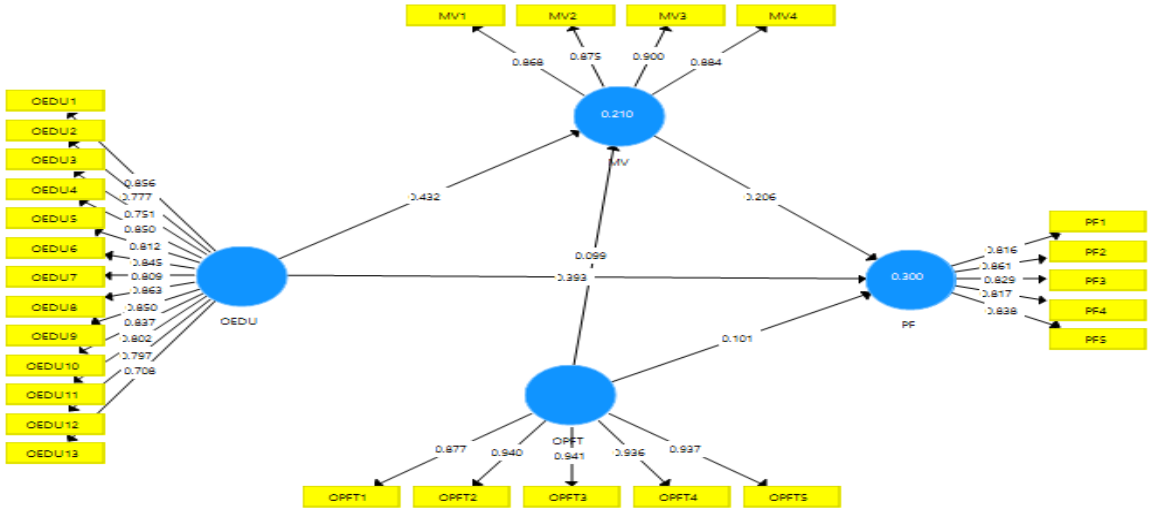

Figure 2: measurement model assessment

In addition, the results also exposed that motivation positively mediated among the nexus of online education, online physical fitness training and physical fitness. Hence the H3 and H4 are also accepted. These relationships are shown in Table 3.

Table 3: A path analysis

Relationships	Beta	S.D.	T-Statistics	P-Values
MV -> PF	0.206	0.066	3.147	0.001
OEDU -> PF	0.393	0.067	5.842	0.000
OPFT -> PF	0.101	0.047	2.130	0.018
OEDU -> MV -> PF	0.089	0.031	2.893	0.002
OPFT -> MV -> PF	0.420	0.094	4.468	0.001

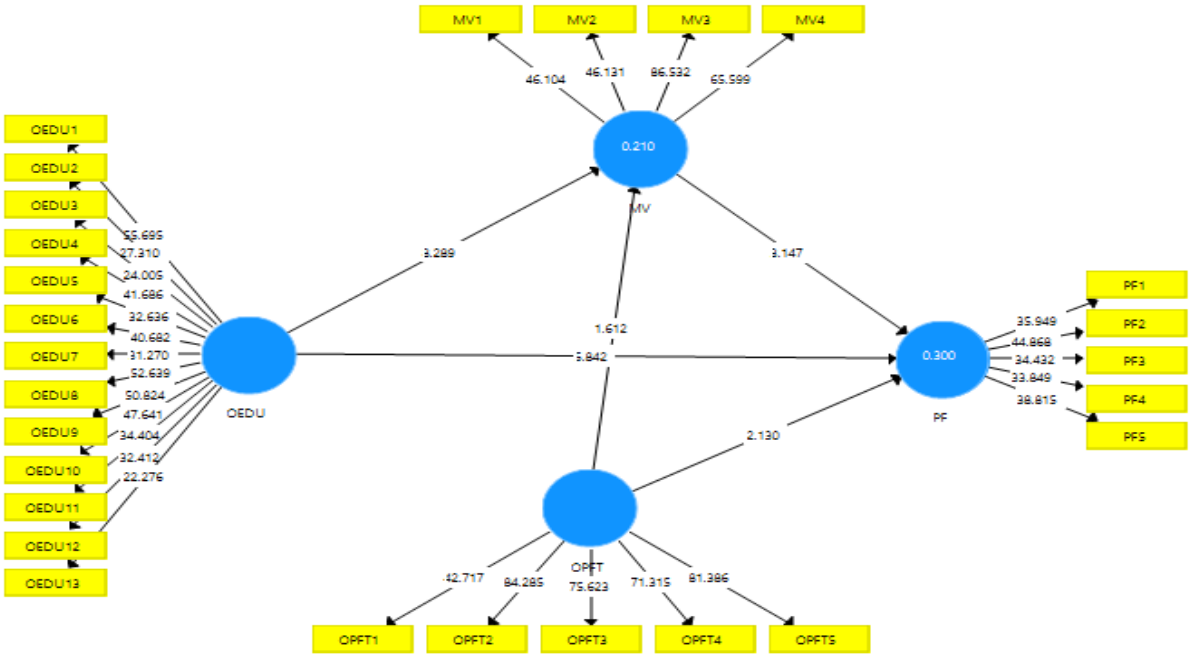

Figure 3: Structural model assessment

Discussion

The results of the current study reveal that online education has a positive association with physical fitness. The study examines that internet-related technology provides education for attaining and maintaining physical fitness. These results are in line with the previous studies of Erfle and Gamble (2015) which show that the facility of attaining education online makes it possible for students, professionals, personnel, and athletes to remain physically fit. The results of our study also indicate that online physical fitness training has a positive relationship with the attainment and maintenance of physical fitness. It is implied that online physical fitness training gives a way to improve physical fitness. These results agree with those of past studies like Granacher et al. (2014) according to which physical fitness can be attained and improved . Moreover, the results of the current study present motivation as a considerable mediator between online education and physical fitness it means online education contributes to the enhancement of motivation among personnel which helps in attaining physical fitness. These results match with past studies of Bodnar and Andres (2016) which reveal that motivation enhanced through online education proves to be beneficial for the achievement of physical fitness and its improvement.

Besides, the results of the current study also show that motivation plays a mediating role between online physical fitness training and physical fitness. The study has found evidence that online physical fitness training enhances motivation and is very useful to maintain physical fitness. These results are in line with the past studies of Farber (2017), which approve the fact that motivation is created by online physical fitness training and physical fitness is maintained through motivation.

According to our findings obtained from research participants on physical fitness and training 100% of the participants stated that their expectations about physical training were exceedingly met. Additionally, 60% of the participants mentioned that their motivation was increased substantially; 40% of the participants said their flexibility and strength levels improved. In addition to these findings, 20% participants stated that during this training, they learned exercises that they could not do earlier. The online training has helped them to learn exercises that they had never experienced before.

In general, this study has proved that motivation is the most important compound of learning in all education environments. Motivation is a psychological element that has psychomotor, mental and emotional dimensions. It happens within all humans and gives them energy and pushes them to perform specific activities. Motivation is thus a must for effective learning and for the online learning to make students more independent. Motivation is ought to be an important part of the learning process in online learning.

The study also reviewed the effect of core training on physical fitness by observing the people's physical characteristics. Such as flexibility, back strength, legs strength and body balance and how they were improved through online training. In a similar study done by Su, Chang, Wu, Guo, and Chu (2017) concluded that stretching exercises affect flexibility, speed and balance. In our study, 100% participants stated that online training saved their time and helped them to perform exercises more efficiently. Besides, 60% of the participants stated that by watching the exercise videos and repeating the exercises, their learning also increased. These videos helped them to perform training exercises correctly. This is consistent with the study of Taspolat, Kaya, and Sapanca (2018) which also found that video training makes an impact on physical education.

The study also found 100% participants stating that distance training videos prepared for physical training were both effective and educative, while 80% of participants agreed that they were effective. They agreed to continue the use of videos and get more opportunities of training. Participants who performed these video exercises also had interactive communication with the trainer and exchanged information. This added to their effectiveness. It was obvious that eight weeks of training had given enough strength to participant's to judge their physical fitness parameters. The study concludes that such training contributes to the growth of physical fitness features as well as increase of physical strength. All 100% of participants said that their training education was complete and they did not need any change or additional exercises. All 100% stated that training education was beneficial and it was well-planned. Also, 20% of the participants found it different and full of fun and not boring since it was renewed every week. Besides, 20% of the participants also suggested giving such training on outdoor real floors instead of online platform. Participants also showed positive opinions about different dimensions such as it was easy to use the mixed learning method, the communication-interaction (online), the content (face-face), and the evaluation. Additionally, the research found that of all dimensions, mixed learning method for academic success was termed as the most effective learning environment than other methods.

Conclusion

The results of this study show that the participants' expectations are met through online physical training Motivation led to the enhancement of the flexibility and strength levels of participants additionally, participants in this study also stated that during online training, they learned exercises that they did not know. Training helped them to learn exercises that they had never experienced before. Participants also stated that watching the videos repeatedly helped them to learn in a real manner. Besides, they also stated that such online training under the supervision of a trainer increased their motivation level and made them remember better, maintain the continuity, and helped them to save time and money. It also gave them the opportunity to increase flexibility, and maintain their body strength and balance. It helped them in fat loss and they could now maintain their weights.

Participants stated that online training saved the total time that they would have spent on physical education. Apart from being able to follow the exercises shown in video, they could also repeat videos and watch the exercises again and again. This practice increased their learning also helped them

to perform the training exercises correctly. Participants also shared that they could perform exercises more comfortably and in a natural environment such as their own houses. Participants also stated that training videos prepared for physical education were effective and educative; a few recommended to increase the number of videos to get more opportunity of additional training if they liked. Participants who performed exercises had interactive communication with the trainer and exchanged information, which further added to its effectiveness. Participants also stated visual training was very supportive and effective, the accompanying written documents and material were also beneficial. Participants admitted that they immediately found answers to their questions, and documents were very helpful. Participants agreed that their training education was complete with these online materials and no further need change or addition was required. Participants stated that training education was beneficial for them since it was well-planned; it was different and full of fun and innovative since it was renewed every week. Finally, participants recommended to have training on outdoor and proper floors as well.

Recommendations

Based on the findings, following recommendations can be given:

- The training visuals and videos should provide information about which muscle group is targeted by the specific physical training exercise
- It is recommended that training education videos should be made available also on mobile and internet.
- It is recommended to design personal training programs specific to individuals
- It is recommended to develop online training programs for working out different parts of the body.
- It is recommended to set up training programs for a longer period to increase efficiency.
- It is recommended to make conduct similar studies with different variables such as age, gender, and condition of being of an active sportsman or not.

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