

Using Information Technology on Sport Participation during Pandemic (COVID-19)

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Abstract: Objectives: Sports participation has an important role to play. Sports activities are change environment to another. Also, using information and communication technology such as distance learning has become a rapidly growing trend. Online delivery platform becomes very important methods for the graduate and undergraduate students to achieves the advanced degrees and knowledge. The aim of this study to investigate the impact of online learning on Sports participation during pandemic (COVID-19).

Methods: This study used the previous studies to investigate the use of online learning on Sports participation during pandemic (COVID-19). This research uses different databases such as Science direct, Google Scholar, Scopus and other databases.

Results: This study comes with some obstacles that face student in Saudi Arabia to practise the sport activities during the pandemic (COVID-19). Those obstacles should consider by Saudi ministry of education.

Keywords: Pandemic Covid-19; Online Learning; Sports Participation.

1. Introduction

In the end of 2019, there are cases appeared in China. Because of those cases Chinese government declare the emergency. The Chinese government founded that the new coronavirus are influences those cases. COVID-19 is commonly name for this virus (Tan et al., 2020). According to the World Health Organization (WHO), this virus can be separate very easy between the people. They did not have any reasons for this virus (WHO, 2020). This virus spread in the most countries in the world. In March 2020, World Health Organization, decide to announce the COVID-19 as global pandemic. The decrease of social interactions as much as possible is the best way the reduce the separation of the virus. In addition, educational organizations and other places which have people gather has to be closed (Karasmanaki & Tsantopoulos, 2021).

Most of the educational organization such as school and universities have change to used information technology for education such as online learning platforms to keep the academic activities going. In same time, the designing, effectiveness and the preparation of e-learning is still not clearly understood. The availability of information technology infrastructure is huge concern for all countries (T et al., 2020). All of the business, sport activities and schools have to closed physically because of the pandemic and assist all organizations to shifted to online platforms. Online learning is the use of information technology for example, internet and some other important technologies. In order to develop materials for educational purposes (Fry, 2001). Hrastinski (2008) stated that there are two types of online learning. Those types are namely asynchronous and synchronous online learning. The online learning to be effective and efficient the teachers and organizations must understanding of the benefits and limitations of the online learning (Adedoyin & Soykan, 2020).

This paper will discuss the impact of using information and communication technology such as online learning to deliver the sport class and sport participation. The structure of the paper is related work, the methods used to collect data and the results of the paper.

2. Relate work

The national Sport aims to maintain and improve health and fitness, achievement, human qualities, Install morals values and noble character, sportsmanship, discipline, and build up strengthen national unity, strengthen national defence, as well as raise the dignity, the dignity and honour of the nation (Sayyd, Asnaldi, et al., 2020). Also, the benefit of sports has a momentous role amongst other extra-curricular activities. In this respect, the academic institutions act as a core whose impact on the youngsters matters a lot in society. Those institutions in which university is one of them are responsible for stressing the importance of sports in the community (Sayyd, et al, 2020; Abidin, et al, 2020). Moreover, Saudi Arabia has taken an interest in sporting activities. wherefore,

One of the goals of vision 2030 is to decrease Saudi's dependence on oil, through economic diversification and health care development as related to the public service sector (Sayyd, et al, 2020). According to (Karasmanaki & Tsantopoulos, 2021) indicate that students did not practise the sport daily during the lockdown. This will affect negatively the student health.

Therefore, sport activities and other physical activities should activate the information technology for teaching it online. According to (Willett et al., 2019) the new technologies have affected the landscape of education is in the rapid growth of using information and communication technology such as online learning. Distance learning has been active in some way for more than two centuries. Also, online learning is still in the first stage with respect to the overall higher education process. All of the areas of education need to be linked to information technology to deliver the teaching. Most of the previous studies indicate the lack of the online materials for teaching the sport online (Willett et al., 2019). This lack affects directly the progress of teaching the sport class in schools. According to (Chen et al., 2006) online learning becomes an important component to obtain advanced degrees and knowledge.

With the development of the information technology more people learn and update their information from the internet. And online learning systems become the new approach for the world to enrich the knowledge. Online learning systems depend on chat and video conference, which make the accessible of information very easy for students and teachers (Xu & Yao, 2016). According to (Pustišek et al., 2019) there are a lot of new technology can be used to deliver the sport activities such as internet of things and cloud computing. According to (Koedinger et al., 2015) there are many countries use the MOOC (Massive Open Online Course) for deliver the teaching materials for their student. MOOC is online video provide online course for student. Some of the sport teachers ask their student to practise sport by watching the courses online via MOOC. Also, there are various applications in the internet allow student to do the physical activity online. Those applications are designed well to achieve the objectives of sport class. In addition, most of the students got high benefits by using those applications (Lonsdale et al., 2019). According to (Xu & Yao, 2016) nowadays, traditional teaching mode can meet learning needs of student and the outcomes needs by the instructors. There is a lack of the technology assist the need of both student and teachers. Panoramic technology is a system help student and teachers to achieve the learning outcomes of the subjects. There are some advantages of using panoramic technology such as it is online without time and space limitations, such that one-to-one communication can be achieved more easily, the system is very easy, teachers' can make electronic course, allow teachers to share voice and other kind of data, allow teachers and students to record and allow students to upload and download their assignment. Machine learning and deep learning are the new technology in the computer world. According to (Cust et al., 2019) indicate the positive affect of using machine learning and deep learning to enhance the sport activity. It is mean sport activity can enhance and practices with using the technology.

Virtual reality becoming the new technology to solve industries problems. Virtual reality is a tool use for product design, shopping, training and education. Most of previous studies indicate the growth of the Virtual reality marketing. Many sport fans like to attend the sport activities and people like to do sport in the real place. VR technologies could support and enhance the feeling of people to feel that they are in real games (Kim & Ko, 2019). According to (Pueo & Jimenez-Olmedo, 2017) evaluate the performance of athletes become the most critical part in sport activities. Always it is depending on the experience of the evaluator. Now, there are motion capture systems for the analysis of sport performance. Analysis of human motion can be regarded as one of the most precise techniques to address elite sports' outcomes. Those systems can support the decision makers to give the correct decision and decrease the rate of the mistake. Decrease the rate of mistakes will increase the rate of competition between the athletes.

According to (Kim & Ko, 2019) using VR will support the people to enhance their fitness during the time of COVID 19. Sport exercise science like other areas of science have been influenced by technologies. Sport should adopt the new technologies to increase the fitness level of the people. There are number of technologies can be used in sports. Those technologies are: self-technology - Landscape Technologies- Implement Technologies- Rehabilitative Technologies- Movement Technologies- Database Technologies (OMOREGIE, 2016). Database Technologies involves computer innovations that allow players know about everything need to know about their opponents. Database programmes have greatly affected the way that many and most professional coaches and players do their business (OMOREGIE, 2016). According to (O'Reilly & Rahinel, 2006) technology is one of the most important components in the sport organization to enhance and develop the sport activities. Without the technology sport cannot reach the main aim of sport.

3. Methodology

This study used various online databases to review the current studies on using the new technologies on sport activities. Also, the impact of COVID 19 on practising the sport activities on school or outside the school. As well this paper reviews the influence of using information technologies to evaluate the performance of players. This study used Science Direct and Google Scholar, Scopus and other databases which help to obtain related theses in the focus domain up to January 10, 2021. In addition, authors used some keywords such as the impact of online

learning on sports activities, Sports participation, virtual reality with sport activities, machine learning with sport exercise and former technology use to deliver the sport classes.

Authors download more than 69 paper which related directly to using technology on sport activities. After that, authors have three criteria to include or exclude the paper. Those criteria are: is this paper using technology on sport, the publish year and publishers. At the end authors reviewed 26 papers which related directly to the main topics.

4. Results and Discussion:

Online learning can be used to help distance learners in all filed. The student experience of online learning is positive. Most of the students agree that online learning provide the different learning experience compared with traditional, teaching. The majority student agrees that using information and communication technology provide different approaches. Those approaches lead to learn and assist student. Also, it facilitated skills such as information retrieval, development of an evidence based stance and collaborative learning strategies that could also be used in other areas of study.

On the other hand, based in the previous studies indicate that limited data is available to offered online classes in the field of sport management. As well many players did not agree with practice the sport online by using new technologies and they prefer to attend the class and matches. Most of students did not practise sport daily during the lockdown. Doing exercise during extended periods of quarantines will effects on mental and physical health. Also, some researchers agree that online learning for sport leads to many health risks and conditions such as cardiovascular disease, one of the leading causes of death.

This study finds the positive impact of using online learning to practise sport during COVID 19 time. There are a lot of technologies can use to practise the sport during lockdown for student, teachers and players. As well, there are many applications can enhance and improve the sport competitive between teams and players. Those applications will assist the decision makers to give the right decision and good time. According to (Kim & Ko, 2019) using virtual reality will assist people to enhance their fitness during the time of COVID 19. Sport exercise science like other areas of science have been influence by technologies. Sport should adopt the new technologies to increase the fitness level of the people. Those technologies are: self-technology - Landscape Technologies- Implement Technologies- Rehabilitative Technologies- Movement Technologies- Database Technologies(OMOREGIE, 2016). Also, using information and communication technology make the availability of information for student very easy by using video conference, chatting and online platform(Xu & Yao, 2016).

Next model presents the technologies those can use for sport to enhance the sport practice, student performance and teams competitive during the COVID 19. This model is summarizing the final results of this study.

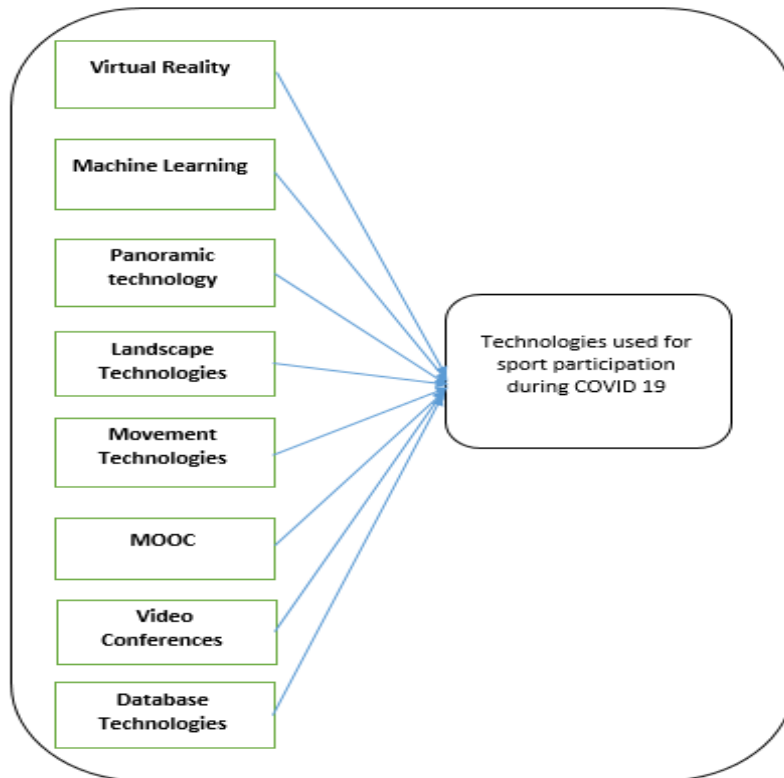


Figure 1: Technologies Used in Sport

5. Conclusion and future work:

Sports exercise is very important activities to enhance the health. The community health, governmental policy and university can encourage people to participate in sport. Using information technology is best approach to assist people to practise sport in every time. While it might not be feasible for all sport activities within an online model, education and more specifically Sports participation programs and students are evolving, and it is important for all involved to consider online education and its important and relevance within Sports participation. However, most of the students agrees that e-learning classes could be more difficult than traditional classroom. The reason is the technological constraints, delayed feedback and inability of the instructor to handle effectively the Information and Communication Technologies.

This study finds that sports participation needs to be enhanced to improve the lifestyle of Saudi students by using online learning. Also, online learning has a strong correlation to student health. This research recommend applications and technologies can use by management of sport to enhance the sport activities. Consequently, general obstacles during pandemic (COVID-19) that students at KSA are study sports activities online and not to practice them on the ground. This research suggests for future researchers to select one of the recommended technologies and adopt it in Saudi schools for sport class.

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