Survey the Impact of the Virtual Reality in the Fitness Science and Trainer's Performance

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Abstract: Fitness coaches see that exercising routinely can cause boredom to some people and often push them out and give up the idea of going to gyms or even walking and running in the same place every time. To create greater enthusiasm, the design of virtual spaces has been created to stimulate the trainee and increase the ability to continue the exercises. Trainers are betting on the success of the training experience in a virtual world that offers more and more welcome options than just practicing indoors in a gym. Modern technology can transport a trainee on a stationary bike at a fitness center in the snow-soaked Minnesota state of Miami to a sunny Miami beach through a three-dimensional, mile-long chapter. Virtual reality techniques are one of the new ways that are employed in many human practices, in order to make phantom things create an effect that simulates natural effect. In Las Vegas, the Consumer Electronics Show in Las Vegas, USA, has introduced a virtual reality fitness black box, giving the same effect to traditional sports venues. The Virtual Reality Black Box device and 30 minutes of dealing with it provide results similar to what would have happened if it had been true. The device comes in the size of a home bathroom with an integrated telephone headset and an automatic resistance device for training, making it a machine that integrates real-life training with virtual reality technologies. In this research, we will learn about the concept of virtual reality and its means of application in the field of sports and its impact on physical trainees.

1-1 Introduction

Virtual reality techniques are one of the new ways that are employed in many human practices, in order to make phantom things create an effect that simulates natural effect. CES 2018 in Las Vegas, USA, has introduced a virtual fitness box, which has the same effect as conventional sports halls. The Black Box VR device, with 30 minutes of operation, provides results similar to what would happen if it were true. The appliance comes in the size of a home bathroom, equipped with an integrated telephone headset and an automatic resistance device for training, making it a machine that combines real-life training with virtual reality technologies. But one of the experts said that "the manufacturer will have to take safety measures to succeed the idea. The player will also have to engage in sporting challenges with himself and with other champions, all in the field of branding. It is noteworthy that there are two men behind this whole idea, namely: Ryan Deluca and Preston Lewis, who have already succeeded in the idea of creating a bodybuilding.com fitness network. The company's plan is to open virtual gymnasiums all over the United States, and each member will have a black box to handle within the lounge. The company says that "the current version is not home, designed for lounges only," and will work in the future to develop the home version. Most people stop going to the gym after two weeks, so commitment is very important that we try to solve here. People find it generally difficult to keep exercise routine, so there are a lot of attempts to make it more attractive, to turn gyms into places that are less boring. That's why such ideas will be useful. But the cost of hardware will make this kind of virtual sports expensive. Is it also safe enough to use people? The researchers ask. "To prove the efficiency of the experiment, there are effects that must be studied on the human body by dealing with a virtual reality in sports. Job Stover, a game developer with the FAR Health Institute, who helps promote the Black Box, said he personally benefited from virtual reality, telling BBC English he lost more than 82 lbs (37 kg) Matches, in addition to improving his diet. Virtual reality techniques have been used in training pilots, training in ice skating and hockey and gaining skills in different sports. And specialists believe that it will lead to a reduction in injuries in future matches.

1-2 Research Problem

The research problem revolves around several things:

- The entry of techniques in all joints of life which make us had to be seized it in the field of sport
- The modern technologies have simplified the requirements of life, so by some touches of a buttons or a touch on the screen of a smartphone or computer to get many things needed by the human and this led to a large laziness in many people
- The emergence of a generation addicted to dealing with smart phones and modern software since the first year after birth and this compels us to embed technology in so that they do not become away from this addict and invest it positively specially in the sport fields.

1-3 Research Aims

The research aim's to several things such as:

- Break the boring routine in sports exercises.
- Scientific and practical packaging the technology in the sports fields.
- Set up virtual games to simulate real reality and earn the player or team more experience and skills at the opponent's matches.

- The possibility of obtaining accurate figures for the physique of the player or team to see the possibility of the player or team.
- Integrating physical effort with fun and entertainment in order to give the best results required for it.

1-4 Research Idea

Indulgence is an experience in which the human loses himself, and this is exactly what happens and which can be described by virtual reality technology, besides it stops all signals from the physical world. The virtual environment can be created on a range of different extensions, based on a computer platform that runs from a cell phone screen to a desktop or an immersive virtual environment. The technology engineering and physics research complex in 2009 published and funded an invention by scientists from the Universities of York and Warwick, a device that puts you in a virtual world is the closest thing to the truth, to make you see, hear, smell, taste, and even touch what you see. When the player enters the virtual reality machine room and lives in the match environment for different sports, it will be of great benefit to the player and the coach by all standards. As there will be avoiding many of the mistakes that may occur in the real match, the strengths and weaknesses of both sides will be carefully diagnosed also before the real match, in addition it is increasing the player's experience after did this experience.

2-1 Virtual Reality

It can be easily defined as an embodiment of the real reality, but it is not real, giving us infinite possibilities of extension, sound, sensation, vision, and emotions as if we were in the physical reality. With virtual reality possibilities, virtual reality simulations can be created completely and the trainee can engage in this experiment or scenario designed according to the nature of purpose. This is very useful in conveying the real reality before going down. Such simulations are used well before field exercises. Virtual reality technology can be defined as a promising technology that makes users feel they are in a virtual environment by using software and hardware. It is designed as a virtual space imaginable of animation, so that humans can access it by wearing special computers. These devices are called "glasses", but they are larger than natural, because most of them are connected to the smartphone and then they can be operated. Technology enables people to handle information more easily, and provides different ways to see and test data in an efficient and fast manner. For example, in the field of computer games, the movements of the controls held by the player are determined by their movements and movements by the computer according to the moves of this player, thus achieving the goals for which the game was built and intended to be achieved by the player. On the same side, a three-dimensional world is simulated and created around the user so that he can interact with objects, humans, and the surrounding environment. In practice, the live images that the user sees in that 3D world - virtual reality - are supported and accompanied by audio materials that are displayed to the user according to the input they have made, such as head or eye movements, and many of those devices that deal with computers are used to create a virtual environment closer What is the truth for the user. In order to try this technology you have to wear gloves, headphones, and special glasses, all of which happens in order to send their inputs to the computer system. Virtual

environments are about to replace the real world environment by this digital world, and human senses will be strongly linked and well adapted to the technology.

2-2 The Importance of Virtual Reality in Physical Education

1 - Multiple sources of education: The technology of education is flexible in the process of learning, as it includes more than the source to complete the process of teaching and learning, and this multiplicity in sources makes the educational process more accommodating there are the teacher, tools, devices, and activities available, materials and the educational environment.

2 - taking into account the individual differences: The process of technology education in physical education must be individual to a large extent, as there is a significant relationship between the technology of education and sports education in its various activities and multiple, where this multiplicity multiple means the method of systems is the phenomenon of the modern era, where it has become the method of dealing with most areas of life in the field of education, for example, cannot be the educational process through the teacher only, but through the teacher and student and the designated means and the school environment and activity.

4 - Diversity: the multiple and efficient multimedia and the use of appropriate teaching methods and multiple technology-based education All this helps to remove boredom and freedom of choice and encourage individuals to practice.

5 - Education technology is a vital and inevitable activity to achieve the goal of physical education: The presence of qualified teacher and modern teaching methods and methods of teaching and teaching based on sound scientific foundations and other components of education technology all this helps to achieve the goal of physical education efficiently.

6 - Facilitate the process of teaching, teaching and learning: The existence of certain means and tools and appropriate devices and the presence of a teacher is understanding of the material and talented and able to manage the study, as well as tools and facilities sports adequate and modern All these factors of the implications of the technology of education certainly facilitates the process of teaching and education.

7 - Accuracy of implementation: The advance knowledge of the appropriate method of implementation and methods of teaching and learning the best, and the time available to achieve the learning skills all this helps to the accuracy of implementation and thus can be said that the technology of education is a reason to achieve achievement.

8 - Achieve the principle of speed in the process of learning: The application of learning technology in the learning of motor skills in physical education make the process of education directly towards the goal, ie, the skill required to teach and thus shorten the learning process to be speed in the process of learning speed calculated and not a random speed to achieve the desired purpose With economy in time, effort and money.

9 - Knowledge explosion: In the modern era, physical education has become dependent on many theoretical and applied sciences and the success of adapting these sciences to sports education as

much as success in its mission and achieve its goals. Physical education depends on many principles derived from the various scientific facts that emerge from the multiple researches that follow us with new facts every day.

10 - Improving the efficiency of the preparation and training of physical education teachers: the more efficient the teacher of physical education, the greater the gifts, especially with the increase in the number of students in schools frightening, and the more efficient as he is able to deal with the continuous change in the curriculum and keep up with this change without wasting the educational process and lift Through the use of an integrated education technology system.

11 - Raising the efficiency of the educational process: does not come to raise the efficiency of the process from a vacuum, but there are constants must be worked out and the most important scientific knowledge that helps us to raise the level of individuals and reduce the loss of time and narrowing the effort of the phenomenon of cultural ignorance of individuals and here is not wasted educational process.

2-3 Negatives of Virtual Reality in Sports Training

1. The use of virtual reality is limited due to the excessive initial costs when purchasing the required equipment and the high cost of production of virtual programs.

2. The limited impact of the five senses in the virtual reality system, which is used only in the sense of hearing, sight and touch, but may appear other developments that use other senses in the future.

3. Excessive use of virtual reality programs and computers, has a negative health impact.

4. The use of special types of computer systems, which include the frequency of frames of moving images and more than fifteen frames per second, lead to injury to the individual nausea and headache and other symptoms such as fatigue and tension of the nervous system.

5. The virtual world places everyone in front of the whole world, giving it all ideas, creeds, and bees. This exacerbates the social and educational role, reduces the practice of tutelage, and undermines the idea of one opinion.

6. Tools that the user needs to wear on his head, eyes and hands, a problem researchers are seeking solutions

3- Research Concepts

Creating a virtual environment is a necessary component of the virtual reality, it is the one that brings us to it, we see and we will be in the world, such as what exists in real life. These are the functions in which the computer is installed and where the software is not allowed to run. 3D models and real-world experiences of the environment. These functions will be used by special programs that have the ability to control their data. Visualization of the three-dimensional feature on the computer screen (or more often than on the screen) or on the screen of a larger screen like this used with projectors overhead. This may be due to the use of special monitors. Treat them

and give them the appropriate responses. It is also possible to use the audio codecs that can be switched off. Tools used in the virtual reality:

1- Visualization
2- Projectors & Displays
3- Head Mounted Display
4- Navigation
5- Equipment Driven
6- Equipment Mounted
7- Touch &Control
8- Grasp
9- Position Tracking
10- 3D Sound

Wearable technology will achieve its full potential when technology moves from the stage of devices that monitors us to the stage of platforms that use the data produced by that monitoring to provide tailored advice to us (or to target a player with or a team for particular products). This technology has extraordinary potential. But the problem is that in order for those platforms to anticipate what we need, they will have to have learned correctly what we usually do. Both enhanced reality and virtual reality provide consumers with completely new ways to receive content. VRs can change the concept of broadcasting by enabling users to attend live events, such as sports matchs, in the virtual environment. Watching any TV program while wearing an enhanced reality device can result in relevant content on the device (similar to the 'second screen' experience in mobile applications that provide content relevant to viewers). It is the professional task of the teacher of physical education also to analyze the required teaching skills, it must clearly define the objectives to be achieved, and then determine the different methods that may be reached to achieve these goals, and choose between these possibilities and choose what he deems appropriate, and decide when to study each subject, and how It is taught, added on the ways to present the course material to the students, and the design of the various activities of the students. There is no doubt that these professional tasks require the teacher to work and great effort, through good leadership and guidance can develop in his students positive attitudes towards the subject of physical education, and also bear them the responsibility of education, and this requires a measure of good behavior and tolerance and fitness by the teacher.

4 – Conclusions

The next wave of wearable technology that manufacturers will launch on the market will consist of devices that include enhanced reality technology or virtual reality technology. Both technologies involve an environment created by the computer - in enhanced reality technology, that environment overlaps with the real world (eg, Google glasses), and in virtual reality technology, the user is fully immersed in that environment (eg virtual reality helmet ' (Oculus Rift)). Devices with enhanced reality technology can help improve efficiency, safety and productivity in both customer service and logistics, and can be used by players during

consultations or tactical matches. The first VR devices are designed mostly for matches' environments, but after a while they can allow us all to talk across continents, or to ensure that specialists interact remotely with devices**.** Virtual reality will prove to be the best way to make a home advertising, and what will make it happen very quickly is that the costs of that process will be borne mostly by the factories and retailers who want to advertise their goods at the moment companies are paying large sums of money for rental Sites to display their goods and some of those companies seek to reduce those expenses by using catalogs that are mailed directly to consumers to buy what they want from them, but the purchase through the catalog cannot be compared to the pleasure of buying through virtual reality, which makes the Design was a duplicate copy of the commercial center within walking around Buyers as if they were inside the original shop.

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