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“EFFECT OF TECHNOLOGY IN SPORTS AND PHYSICAL EDUCATION”

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ABSTRACT

Today the field of Physical Education and Sports can make a significant contribution to the role of technology play in enhancing sports performance. Technology in sports and physical education has established scientific discipline in physical activities and also improve learning and coaching. Today technology is an important factor for everyone. In 21st century, the importance of Technology and we always inspired about using new technology in day-to-day life. This paper aims to explore the importance of Technology in Sports and Physical Education Sector. Sporting Technology is man-made means developed to reach human interests or goals in or relating to a particular sport. Technology in sports is a technical means by which athletes attempt to improve their training and competitive sport. It is the knowledge and application of using specialized equipment and the latest modern technologies to perform tasks more efficiently. Recent developments in sporting technologies have created a variety of products aimed a improving and increasing athletic performance. Athletic health can be maintained and observed and injuries treated through the production of modern sporting technologies as heart rate monitors, pedometers and body-fat monitors. Through this, a greater depended knowledge of the human body and its potential has been recognized allowing athletes to train and complete in sports. Modern sporting technologies have also competition judging easier and more accurate and spectator interest and excitement is enhanced by broadcasting and in stadium display. Technologies such as CAD (Computer Aided Design) can play a major role in the improvement of sporting equipment. CAD also used regularly in the justification of physical facts and figures and for both competitive and training circumstances. Other technologies such as smart equipment can be used to evaluate human performance. Modern technologies such as motion capture analysis are also used to analyze athlete performance. This involves digitally recording the atheletes movement during the sport activities, which can then be used for personal performance evaluation by the sportsman.



KEYWORDS: Technology, Athlete, Physical Education, CAD, Equipment, Performance.

INTRODUCTION

The world of sport is continually changing over the years, and the use of technology is just one of those areas that have made an impact on many in the modern day. Technology in various forms has been utilized in sport for many years and plays particularly vital role in elite sports. Some of the

thematic application of technology include, sporting equipment, clothing and wearable's, facilities competition adjudication and format media broadcasting and communications and performance analytics.

A major trend in sports technology is toward real time application of devices that provide athletes, coaches and analysts with immediate feedback across a wide range of performance factors. Another trend is toward devices that are smaller, lighter, more powerful and easier to use. One criticism of the use of technology is that it can slow down the speed of the game but on the other hand for many people it makes watching it more enjoyable to see the correct decisions being made.

EFFECTS OF TECHNOLOGY IN SPORTS :-

*** Technology Assist the Umpires :-**

Many sports Umpire have used action replay and other high-tech aids to help umpire make the right decision. For example in international cricket, the third umpire has been used one sitting off the ground with access to TV replays of certain situation (such as disputed catches, run out, boundaries) to advise the third umpires. The umpire out on the field is in communication via wireless technology with the other umpires.

*** Hawk- Eye Technology:-**

Hawk-Eye is a revolutionary sports tracking device. Hawk-eye is the name of computer and camera system which traces a balls trajectory. It provides valuable information to player's coaches and umpires to enable them to identify faults, measure performance and improvement focus on specific areas and improve tactical awareness.

*** Coach and Referees in Decision making:-**

The use of technology in sports is growing rapidly. In cricket, wrestling, football, swimming and many other sports and field of physical education technology helps referees and coaches, sports person in decision making. Some of these includes the use of microchips, ball and signals to referee, microphones and earpieces, electronic sensors in goal posts, cricket stumps, tracking system for offside play, goal line. Every sports use of technology helps referee, coaches, player to make a better decision.

*** Technology is Authentic Substitute for Human Error :-**

In the earlier days, whatever decision was made by the match officials was considered the last word. Though efforts had been made by all the great sports governing bodies of the world to do away with bias, yet the element of human error still remained and will continue to exist. What technology strives to do is to remove the element of human error in the course of a match been played.

*** Technological Advancement in Equipments:-**

Equipment are constantly changing in sports like rackets, helmet, cycles, shoes swimming costume, wrestling costume, synthetic running track, different games mat etc. equipments are constantly changing in all sports and become lighter to increase power and reduce injury. It is now stronger and better protection in certain sports and physical activities like as running, jumping and many other physical movements.

*** Technological Advancement in Facilities :-**

Technology has improved the materials that are available to sports manufactures making the athlete more aerodynamic in swimming, cycling, skating, athletic event, gymnastic has improved the quality of surfaces in football, hockey, tennis, athletic and gymnasium hall etc. Thus the improvement in playing surfaces has made the sports safer and attractive and also fitness Gyms are full of computerized training equipment. Stadiums are being updated to make spectators safer.

*** Technology Increase athletic performance :-**

Sports gear such as clothing and footwear should be user friendly and include valuable properties such as strength, flexibility, density, thickness, durability, toughness, resistance to moisture and more importantly cost. Footwear is generally considered more for comfort and injury avoidance rather than performance enhancement, whereas clothing such as the fully body suits used in swimming are often claimed for rationalize the competitor's performance times where winning or losing the race is measured in hundredths of seconds. Thus, recent developments in sporting technology have created a variety of products in many sports aimed at improving and increasing athletic performance.

CONCLUSION :-

Technology play vital role in the human being. Technology in sports is essential to the day and age of performance for athletes with is making game easier. Technology also makes better information available to coach, athlete to increase their performance. Technology analysis athlete movement during the sporting activities which can then be used for personal performance evaluation by the sportsman. Finally efficient technology will help in enhancing the performance and quality of sports.

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