Changing Trends in Physical Education and Sports Sciences

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Abstract: The aim of this paper is to identify the current trends and challenges in physical education and sports and based on these current challenges, future trends and challenges would be discussed. There are various factors which are diminishing the interest of students in physical education activities. Although the physical education is being taught as a part of curriculum in all the schools but lack of adequate time and trained teachers, good facilities are responsible for little interest in this field. The future challenges to make this field interesting involves an adequate curriculum, sufficient funds allotment for holding various competitions and role of technology to create awareness about the importance of physical activities and sports in our daily life. All these issues have been discussed in the present study.

Keywords: Physical Education, Sports, Curriculum, Technology.

I. Introduction

The importance of physical education has never been emphasized more than it is today. It is widely recognized that physical education and sports is relevant and important in developing an active and healthy lifestyle and the solution to rising obesity rates worldwide. Although in most countries, physical education is part of the school curriculum, lessons are not given, thus leading to a reduced experience of physical activity for children and youth. The practice of a physically active lifestyle in combination with healthy nutrition, however, needs to be started in early childhood. Therefore, ensuring that all children engage in regular physical activity is crucial, and the schools are the only place where all children can be reached. Quality Physical Education is the most effective and inclusive means of providing all children, whatever their ability/disability, sex, age, cultural, race/ethnicity, religious or social background, with the skills, attitudes, values, knowledge and understanding for lifelong participation in physical activity and sport and is the only school subject whose primary focus is on the body, physical activity, physical development and health. The present study will identify the current trends, issues and challenges in PE and sports based on which future challenges will be addressed.

Concept

Physical Education (PE) is a branch of education that aims to promote physical fitness and overall health through various physical activities, exercises, and sports. It involves the development and improvement of physical skills, coordination, strength, endurance, flexibility, and agility. Physical Education aims to provide individuals with the necessary knowledge and skills to maintain an active lifestyle and make informed decisions about their physical well-being.

Aims

The primary aim of Physical Education is to promote the physical, mental, social, and emotional development of students. It aims to help students develop a positive attitude towards physical activity, leading to a lifelong participation in physical activities and sports. Additionally, Physical Education aims to:

1. **Develop physical fitness and motor skills:** Physical Education aims to develop the physical fitness and motor skills of students, such as coordination, balance, agility, and strength.
2. **Promote health and well-being:** Physical Education aims to promote overall health and well-being, including mental health, through regular physical activity.
3. **Encourage teamwork and social skills:** Physical Education aims to develop teamwork and social skills among students through group activities and team sports.
4. **Provide knowledge and understanding:** Physical Education aims to provide students with the knowledge and understanding of the importance of physical activity and its benefits.

Objectives

The objectives of Physical Education are closely related to its aims. They include:

1. **Physical Development:** To improve physical fitness, motor skills, and health through physical activities, sports, and exercise.
2. **Mental Development:** To promote mental health, cognitive functioning, and learning through movement and exercise.
3. **Social Development:** To develop social skills, teamwork, and fair play through group activities and sports.
4. **Neuro-Muscular Development:** To improve coordination, balance, agility, and posture, and prevent injuries.
5. **Emotional Development:** To foster emotional well-being, self-awareness, and resilience through physical activities and sports.
6. **Development of Health:** To promote healthy lifestyle choices and prevent chronic diseases through physical activity and education.

Development of Physical Education in India – Post Independence

The development of Physical Education in India post-independence has been a significant and ongoing process. Here are some key points about the development of Physical Education in India post-independence:

1. **Central Advisory Board of Physical Education and Recreation:** The Central Advisory Board of Physical Education and Recreation (CABPER) were established in 1955 to advise the government on matters related to Physical Education and sports. The board consists of experts in the field of Physical Education, sports, and recreation.
2. **All India Council of Sports:** The All India Council of Sports was established in 1951 to promote sports and Physical Education in India. It advises the government on sports policies, promotes sports at the grassroots level, and manages the National Sports Federations.
3. **Netaji Subhash National Institute of Sports:** The Netaji Subhash National Institute of Sports was established in 1978 in Patiala, Punjab, to provide specialized training to coaches and athletes. The institute offers courses in sports coaching, sports medicine, sports psychology, and sports management.
4. **Inclusion of Physical Education in School Curriculum:** The Central Board of Secondary Education (CBSE) made Physical Education a compulsory subject in schools in 1988. This step helped promote the importance of Physical Education and its role in overall development among school students.

5. **Establishment of Sports Authority of India (SAI):** The Sports Authority of India was established in 1984 to promote sports and physical activity in India. It also manages various national sports teams and provides training and support to athletes.

6. **National Physical Fitness Programme:** The government of India launched the National Physical Fitness Programme in 1984 to promote physical fitness and healthy living among citizens. The program aims to improve the physical fitness levels of the entire population.

7. **Promotion of Traditional Indian Sports:** In recent years, there has been a renewed interest in promoting traditional Indian sports such as kabaddi, kho-kho, and gilli-danda. This has helped promote the cultural heritage of India and encourage physical activity among youth.

8. **Introduction of Sports Science:** Sports science has gained importance in recent years with the establishment of sports science centres across the country. The focus is on using scientific methods to improve athletic performance and prevent injuries.

Changing Trends in Sports

1. Playing Surface

Over the years, there have been changing trends in sports with regard to the playing surface. *Here are some key trends in the playing surface of different sports:*

1. **Football**: The traditional grass playing surface for football has been replaced by artificial turf in many stadiums. Artificial turf offers several advantages over grass, including reduced maintenance costs and the ability to withstand heavy use and harsh weather conditions. However, some players still prefer the natural feel of grass.

2. **Tennis**: The traditional clay and grass courts have been joined by hard courts made of acrylic, asphalt, or concrete. Hard courts are more durable and require less maintenance than grass or clay courts. Additionally, they allow for a more consistent bounce and faster play. However, clay and grass courts remain popular in some tournaments.

3. **Basketball**: Indoor basketball courts were traditionally made of hardwood, but now there are synthetic surfaces made of rubber and other materials that provide better shock absorption, increased durability, and more consistent performance.

4. **Volleyball**: Indoor volleyball courts were traditionally made of wood, but now there are synthetic surfaces made of rubber or polyurethane that provide more consistent play and require less maintenance.

5. **Cricket**: The traditional red clay pitch has been replaced by more durable and consistent synthetic surfaces made of artificial grass or turf. These surfaces allow for better play and reduced injuries.

6. **Hockey**: The traditional grass playing surface has been replaced by artificial turf that provides more consistent play, faster game play, and better ball control.

Overall, the trend in sports is towards more durable, consistent, and low-maintenance surfaces. Synthetic surfaces offer several advantages over natural surfaces, including reduced maintenance costs and increased durability. However, some players still prefer the natural feel of grass or clay. The choice of playing surface ultimately depends on the sport, the venue, and the players' preferences.

2. Wearable gear

Another trend that has emerged in sports in recent years is the use of wearable gear. Wearable gear includes any device or equipment that can be worn by athletes to measure, track, or improve their performance. Here are some examples of wearable gear that are commonly used in sports:

1. **Fitness trackers:** Fitness trackers are wearable devices that can track an athlete's physical activity, heart rate, and other biometric data. They can be used to monitor training progress and optimize workouts.
2. **Smart watches**: Smart watches can also be used to track physical activity, but they can also provide other features like GPS tracking, weather updates, and music playback.
3. **Smart clothing:** Smart clothing is made of fabrics with integrated sensors that can track an athlete's movement, posture, and other biometric data. This information can be used to improve technique and reduce the risk of injury.
4. **Head-mounted displays:** Head-mounted displays are wearable devices that can provide athletes with real-time information about their performance, such as speed, distance, and heart rate. They can also be used to provide augmented reality experiences for training and simulation.
5. **Smart helmets:** Smart helmets are equipped with sensors that can track an athlete's head impact and provide real-time feedback to reduce the risk of concussion and other head injuries.

Wearable gear has the potential to revolutionize the way athletes train and compete. By providing real-time feedback and tracking performance metrics, athletes can optimize their training and reduce the risk of injury. Wearable gear is also becoming more affordable and accessible, which means that even amateur athletes can benefit from this technology.

3. Sports equipment

Another important trend in sports is the advancement of sports equipment. Advancements in materials science, manufacturing techniques, and design have led to the development of sports equipment that is lighter, stronger, and more efficient than ever before. *Here are some examples of changing trends in sports equipment:*

1. **Carbon fibre:** Carbon fibre is a lightweight and strong material that is used in sports equipment such as bicycles, tennis rackets, and golf clubs. Its strength-to-weight ratio is much higher than traditional materials like steel or aluminum, making it an ideal choice for high-performance sports equipment.
2. **3D printing:** 3D printing is a manufacturing technique that allows for the creation of complex shapes and structures. It is being used to create custom-made sports equipment that is tailored to the individual athlete's needs. For example, 3D printing is being used to create customized prosthetic limbs for Para-Olympic athletes.
3. **Smart equipment:** Smart equipment is equipment that has sensors or electronics embedded in it. For example, basketballs with sensors can track the number of shots taken and the accuracy of each shot, and golf clubs with sensors can provide feedback on the golfer's swing. Smart equipment can help athletes track their progress and improve their technique.
4. **Biomechanics**: Advancements in biomechanics have led to the development of sports equipment that is designed to optimize an athlete's performance. For example, running shoes are designed to provide the right amount of support and cushioning to reduce the risk of injury and improve running efficiency.
5. **Virtual reality:** Virtual reality is being used to create simulations of sports equipment and environments. For example, virtual reality is being used to create simulations of golf courses to help golfers practice their swings.

Advancements in sports equipment are helping athletes perform better and achieve new heights in their sports. The trend is towards equipment that is lighter, stronger, and more efficient, as well as equipment that can provide feedback and improve technique.

4. Technological advancements

Technological advancements are rapidly changing the world of sports. *Here are some of the major trends in sports technology:*

1. **Data analysis:** The use of data analysis and predictive modeling is becoming increasingly important in sports. Teams are using data to optimize their training regimes, improve their strategies, and make better decisions about player selection and recruitment.
2. **Video analysis:** Video analysis is a key tool for coaches and players to review game footage and analyze their performance. Advancements in video technology are making it easier to capture and analyze game footage in real time.
3. **Virtual and augmented reality:** Virtual and augmented reality technologies are being used to create immersive training environments for athletes. Virtual reality can simulate game situations and allow athletes to practice their skills in a safe, controlled environment.
4. **Smart stadiums:** Smart stadiums use technology to enhance the fan experience and provide real-time information about the game. For example, fans can use their smart phones to order food and drinks and access information about the game.
5. **E-sports**: E-sports, or competitive video gaming, is becoming increasingly popular. E-sports tournaments are being held around the world, with professional gamers competing for large cash prizes.

Technological advancements are changing the way sports are played, watched, and analyzed. Teams and athletes are using data and technology to gain a competitive edge, and fans are enjoying new and immersive experiences both in the stadium and at home.

Career Options in Physical Education

There are several career options in the field of Physical Education, which can be broadly classified into three categories: Teaching, Coaching, and Allied Fields.

1. **Teaching**: Physical Education teachers are responsible for designing and implementing physical education programs for students of all ages. They teach various aspects of physical education, including exercise, sports, and fitness. Physical Education teachers can work in schools, colleges, universities, and other educational institutions.
2. **Coaching**: Coaches work with athletes to help them improve their performance and achieve their goals. They provide training, guidance, and support to athletes, and help them develop their physical and mental skills. Coaches can work in a variety of settings, including schools, colleges, sports clubs, and private coaching centers.
3. **Allied Fields:** Physical Education professionals can also work in allied fields such as sports management, sports medicine, sports journalism, and sports psychology. Some of the career options in these fields include:

- **Sports Management:** Sports managers oversee the business and operational aspects of sports teams and organizations. They manage finances, marketing, and event planning, and work to ensure the success of the team or organization.
- **Sports Medicine:** Sports medicine professionals provide medical care to athletes, including injury prevention, treatment, and rehabilitation. They may work in hospitals, clinics, sports teams, or private practice.
- **Sports Journalism:** Sports journalists cover sports events and news for various media outlets, including newspapers, magazines, and television. They write articles, conduct interviews, and provide analysis and commentary on sports events and trends.
- **Sports Psychology:** Sports psychologists work with athletes to help them develop mental skills such as concentration, motivation, and goal setting. They may also work with sports teams and organizations to improve team dynamics and performance.

In conclusion, there are several career options in the field of Physical Education, ranging from teaching and coaching to allied fields such as sports management, sports medicine, sports journalism, and sports psychology. Each career option requires specific skills, qualifications, and training, and offers unique opportunities for growth and advancement.

Khelo-India Program

Khelo India is a national program launched by the Government of India in 2018 with the aim of developing sports at the grassroots level and nurturing young talent across the country. The program seeks to create a sporting ecosystem that will enable India to achieve sporting excellence in the years to come.

The Khelo India program has several components, including:

1. **Khelo India School Games:** The Khelo India School Games is a national-level competition for school students between the ages of 10-18 years. The competition is held in various disciplines, including athletics, swimming, boxing, judo, and football. The competition aims to identify and nurture young talent in various sports.
2. **Khelo India University Games:** The Khelo India University Games is a national-level competition for university students across the country. The competition is held in various sports, including athletics, swimming, basketball, football, and volleyball. The competition aims to provide a platform for university students to showcase their sporting talent and develop their skills.
3. **Talent Search and Development:** The Khelo India program also includes a talent search and development initiative that aims to identify and nurture young talent in various sports. The initiative provides financial assistance to selected athletes for training, coaching, and equipment.
4. **Community Coaching Development:** The Khelo India program also focuses on the development of community coaches who can provide quality coaching to young athletes at the grassroots level. The program provides training and certification to community coaches to enhance their skills and knowledge.
5. **Sports Infrastructure Development:** The Khelo India program also includes the development of sports infrastructure across the country. The program aims to create world-class facilities for training and competition in various sports.

In conclusion, the Khelo India program is a comprehensive initiative aimed at developing sports at the grassroots level in India. The program seeks to identify and nurture young talent, develop world-class sports infrastructure, and promote a sporting culture in the country. The program has the potential to transform the sports landscape in India and make it a sporting powerhouse in the years to come.

Fit – India Program

The Fit India program is a national initiative launched by the Government of India in 2019 with the aim of promoting fitness and a healthy lifestyle among the citizens of the country. The program seeks to create awareness about the importance of physical activity, promote healthy habits, and inspire people to lead an active lifestyle.

The Fit India program has several components, including:

1. **Fit India Movement:** The Fit India Movement is a nationwide campaign aimed at promoting fitness and a healthy lifestyle. The campaign encourages people to adopt physical activity as a part of their daily routine and make it a habit.

2. **Fit India Active Day:** The Fit India Active Day is an annual event celebrated on 29th August. The event aims to promote physical activity and inspire people to lead an active lifestyle. The event includes various activities, including sports, yoga, and fitness sessions.

3. **Fit India School Rating:** The Fit India School Rating is a rating system for schools based on their fitness and physical activity levels. The rating system is designed to encourage schools to promote physical activity and healthy habits among their students.

4. **Fit India Cyclothon:** The Fit India Cyclothon is a cycling event organized across the country to promote fitness and a healthy lifestyle. The event encourages people to take up cycling as a form of physical activity and promotes eco-friendly transportation.

5. **Fit India App:** The Fit India app is a mobile application that provides information and guidance on physical activity and a healthy lifestyle. The app includes features such as tracking physical activity, fitness challenges, and tips on healthy eating.

In conclusion, the Fit India program is a comprehensive initiative aimed at promoting fitness and a healthy lifestyle among the citizens of India. The program seeks to create awareness about the importance of physical activity, promote healthy habits, and inspire people to lead an active lifestyle. The program has the potential to transform the health and fitness landscape in India and make it a healthier and fitter nation.

II.Conclusion

The current practices and present curriculum needs to be modified to generate interest of students in physical education and sports activities. The future challenges will mainly be the appropriate curriculum to be made and followed and to make available adequate funds from various organizations in order to support the needy but intelligent children so that they can only focus on their game without worrying about the funds. The technology will also play an important role in expanding and creating the interest in physical activities. The importance of physical education and sports activities are being identified in today's world and efforts are being made to improve the situations so that more and more talent can be recognized.

References

1. Aplin N. Editor, Perspectives on physical education and sports in Singapore. An eye on the Youth Olympics 2010. McGraw Hill Education, Asia, 2009.

2. Darst PW, Pangrazi RP.Dynamic physical education for secondary school students. San Francisco: Benjamin Cummings, 2006.

3. Darling-Hammond L, Bransford J. Editors, Preparing teachers for a changing world. JoseyBass, San Francisco, California, 2005.

4. Kelly LE, Melograno V. Developing the physical education curriculum: an achievement based approach.Human Kinetics, 2004.

5. Pate RR. Davis MG, Robinson TN, Stone EJ, Young JC. Circulation 2006; 114(11):1214-1224.

6. Rosen LD. Understanding the iGeneration and the way they learn, New York, St Martin's press, 2010.

7. Rosen LD. Educational leadership 2011; 68(5):10- 15.

8. Sallis JF, Floyd MF, Rodriguez DA, Saelens BE. Circulation 2012; 125(5):729-737.

9. Siedentop D, Tannehill D. Developing teaching skills in physical education. Mountain View, CA: Mayfield, 2000.

10. Stillwell JL, Willgoose CE. The physical education curriculum. Long Grove, Illinois: Waveland Press, 2006.