



ISSN: 2456-0057
IJPNE 2017; 2(2): 243-248
© 2017 IJPNE
www.journalofsports.com
Received: 05-05-2017
Accepted: 06-06-2017

Dr. Vivek Solanki
Assistant Professor, Physical Education, Department of Education, Maharaja Surajmal Institute, C-4, Janak Puri, New Delhi, India

Dr. Jyoti Solanki
Assistant Professor, Physical Education, Government College, Department of Higher Education, Government of Haryana, Badali, Jhajjar, Haryana, India

Potential contribution of physical education in achieving the aims of education

Dr. Vivek Solanki and Dr. Jyoti Solanki

Abstract

Focusing upon the relationship between sports, physical education and education, this paper offers a review of the evidence related to the outcomes of the participation of children and young people in sports and physical education. Particular attention is paid on potential contribution that sports and physical education can make in achieving the aims of education. The review suggests that there is strong evidence that sports and physical education strongly influence educational achievements. There is a considerable amount of evidence in favor of positive relationship between sports, physical education and education. In general, however it is evident that much more empirical research is necessary if the benefits of sports participation for young people and children are to become much more than a theoretical aspiration.

Keywords: Physical Education, Sports, Education

Introduction

As we know that education is a lifelong process, life itself being a school and include all the areas that influence our life, for example Home, social institutions, media, playground and environment etc which influence and mould the character and personality of a person. Education is not limited to educational institution alone or to specific period of life, rather this process is indirect and incidental. The process of education starts from the birth and continues till the end of life. During his life a person learns from his parents, elders, home environment, friends, associates and other member of society. A part from these, a man learns many things by indulging in various types of activities and even by observing other. One can never claim to be completely educated as the process of learning goes on and one has to adjust himself to the changing patterns of life.

However, we should not forget that formal education is not the real education or real knowledge and important of informal education cannot be ignored. It is a process which enables a man to acquire knowledge through conducive attitude, which is essential for being a human being. According to Prof. Drever, "Education is a process in which and by which knowledge, character and behavior of the young are shaped and molded".

It is a process leading to enlightenment and development of all the aspects of an individual's personality i.e. physical, mental, emotional, social, intellectual and spiritual. Education aims at all round development.

The word education is mis-interpreted so as to mean curriculum followed in school, extent of schooling or development of intellectual aspect alone would defeat the very purpose of education. No individual, no community, no nation can depend upon one aspect of life for the whole of living. Man is a psycho-physical organism and mind body should not be conceived as two separate entities. It has been very appropriately summed up by Montaigne,

"It is not a soul, it is not a body that we are training up, it is a man and we ought not to divide him into two parts".

In the modern era there has been a significant shift in the definition of education from the 3 R's (Reading, writing, arithmetic) to 3 M's (Man, material, methods) i.e. all round development of personality. It clearly establishes that physical education is an integral part of education and the aims of education cannot be achieved without physical education and sports. Even the objectives of education are compatible and in harmony with the objectives of physical education.

Correspondence

Dr. Vivek Solanki
Assistant Professor, Physical Education, Department of Education, Maharaja Surajmal Institute, C-4, Janak Puri, New Delhi, India

By acquiring an inquiring mind, by teaching philosophy of life and by self expression physical education can contribute to self-realization objectives of education. Physical education through its varied activities provides rich opportunities of socialization, to develop cohesion, cooperation and leadership qualities which all foster the feeling of good human relationship, another objective of education. Physical education contributes to economic efficiency, the third objective of education, by teaching that one's success in profession or vocation depends upon his health and fitness state. Fourth objective of education, civic responsibility, is realized through physical education by inculcating qualities of good citizenship, leadership, patriotism, humanitarianism and by teaching obedience of laws. Though process adopted may differ, physical education definitely meets and realizes the objectives of general education.

Physical education is vital for the holistic development of young people improving their physical, social and emotional health. The benefits of physical education reach beyond the impact on physical wellbeing and the value of the educational benefits of sports should not be under-estimated within schools, physical education is an essential component of quality education. Not only do physical education program promote physical activity, participants in such program are also shown to have improved academic performance under certain conditions. Sports can also provide health alternatives to deviant behavior such as drug abuse, violence and crime.

The educational impact of physical education includes both the development of motor skills and performance, as well as educational potential. This refers to the positive relationship between physical activities and educational development. Sports and physical education is fundamental to the early development of children and youth and the skills learned during play, physical education and sport contribute to the holistic development of young people.

To achieve broader goals in education and development, sports program must focus on the development of the individual and not only on the development of technical sports skills while the physical benefits of participation in sports are very well known and supported by large volume of empirical evidence. Sports and physical activity can also have positive benefits on education.

Physical educationist often declares that participation in their subject have a positive impact on academic achievements. If these assertions are to be believed, we must specifically look at the impact of a standards-based physical education curriculum. A standard physical education curriculum follows an appropriate set of objectives and goals based on national recommendations. Therefore, since physical education is a primary focus in physical education curricula, the relationship between physical education and academic achievement may be observed through the potential academic benefits of physical activities. A study reported that physical education increases daily physical activities and decreases sedentary time in middle school age children (chen *et. Al*, 2014) ^[1] below in the long term, trudeau *et. Al* (1999) ^[2] found daily primary school physical education to have a string positive effect on the exercise habits of adults.

Students in every grade level at school across the country are struggling in class. It's not because they're underachievers, or they're not smart, or they don't care. It's because we're working against them. The longer children and teens are forced to sit and grow roots in their chairs, the harder it will be for them to bloom.

The Columbia University states, "Physical activity can have

an impact on cognitive skills and attitudes and academic behavior, all of which are important components of improved academic performance. These include enhanced concentration and attention as well as improved classroom behavior" and there's more. Active living research says, "In some cases, more time in physical education leads to improved grades and standardized test scores".

Unfortunately, many schools cut physical education and physical education funding with the belief that more rigid classroom time would somehow stimulate students to learn more. It's an incorrect belief and there's scientific evidence to prove it. Exercise directly impacts the behavior and development of the brain. "It is likely that the effects of physical activity on cognition would be particularly important in the highly plastic developing brains of youth," according to 2010 essay penned by Charles Basch of Columbia university. He summarized how exercise may affect executive functioning:

- Increased oxygen flow to the brain.
- Increased brain neurotransmitters
- Increased brain-derived neuro trophins that support neuronal differentiation and survival in the developing brain.

Physical activity has benefits beyond improved grades, too:-

1. Drop-out rates were lower for youth who consistently participated in interscholastic sports.
2. They build the body and refresh their mind
3. They train the mind in many virtues.
4. They teach discipline and team spirit.
5. Physical education creates in students the sporting spirit
6. They develop pluck and patience
7. Sports teach them to take a defeat in a good spirit.

The national association for sports and physical education recommends 60 minutes a day for children and adolescents. Schools should provide 150 minutes per week of instructional physical education for elementary for elementary school children and 225 minutes per week for middle and high school students throughout the school year. Adequate physical education curriculum can help children achieve these numbers, in turn creating healthy bodies and eager to learn minds. Adequate physical education doesn't stop there; it sets children up for healthy adulthood, perpetuating a cycle of well-being for generations to come.

Clarifying terms

As its title suggests, this article is concerned with physical education, sports and education. Clearly, these concepts have a great deal in common, but it is often suggested that there remain essential differences. Since the distribution between physical education, sports and education continues to be a cause of debate (Murdach, 1990; Whitson & Macintosh, 1990; Dept. of education and science/welsh office (DES/WO) 1991; Penney, 2000) ^[3-7], it is worth while clarifying the present use of the terms

- Physical Education
- Sports
- Education

Sports have been part of human life almost since the time immemorial. Be it a necessity for his survival i.e. hunting for food, shelter and safety from wild animals or other enemies, or as a pursuit of pleasure. The sports have been indispensable to mankind and have become part of his culture. The sports

are a great unifying force and have tremendous effect on the national and international integration.

Though the origin of sports is lost in antiquity, it is quite certain that physical activity has been a part of the life of even primitive man. For him it might have been a basic necessity of life, more than fun and diversion, for his survival depended on it. Hunting, fishing, hurling missiles were activities on which his survival depended. Gradually along with the process of evolution, such activities became more of play and became part of the culture of the tribes. People used sports and games as a mode of transmitting the cultural heritage of their tribes. Today, games and sports have emerged as universal cultural phenomena.

Sports programs are structured in such a way that they teach the essential unity in the diversities of national life and games and sports try to inculcate the essential qualities of communal harmony and fellow feelings. Youth festivals of sports and similar competitions organized throughout the country will go a long way in harmonizing their thought and efforts. In fact, play grounds are the laboratories of the society where socially useful actions can be molded, refined and human approach to life can be practiced. For building up a new generation an appropriate training and motivation of the individuals is imperative. All this is possible through the medium of sound program of sports which act as a dynamic charging force-never compromising with the status quo of the traditional thinking, attitudes and habits. Undoubtedly sports play a vital role in building a complete human being. Participation in sports develops following qualities with irrespective of the sex/gender:

1. Sports participation develops good character
2. Sports participation develops a sense of discipline.
3. Sports participation develops loyalty.
4. Sports participation develops social control/self control
5. Sports participation prepares the athletes for life.
6. Sports participation provides opportunities for individual advancement
7. Sports participation generates physical fitness
8. Sports participation generates mental alertness
9. Sports participation is supportive of education achievement
10. Sports participation promotes nationalism

Physical education: - Evolution of human life started with the movement. Human beings have been very active and creative by nature and physical activity has been part of their life all along since evolution. Physical activity was also the first mode of communication; it was also a means of expression. As human beings evolved culturally, emotionally and socially, physical activity also evolved. As the society became more and more complex leading towards the modern age, physical activity came to be recognized as an organized and supervised form of education and was termed as physical education.

The words of Plato also support the importance of Physical activities he said "Lack of activity destroys the good conditions of every human being, while movement and methodical physical exercise save it and preserve it".

Physical education is a combination of two words physical education. Combination of these two words means systematic instruction or training which relate to physical activities or program of activities, necessary for development and maintenance of human body, development of physical power or cultivation of physical skill. Physical education is a statutory area of the school curriculum, concerned with

developing children's physical competence and confidence and their ability to use these to perform in a range of activities. (Department of education and employment, 2000, P. 129) Physical education has a special significance, unique role and has made unlimited contribution in the modern age as it caters to the biological, sociological and psychological necessities of the man. Swami Vivekananda once in a conference said that

"What India need today is not the Bhagwat Geeta but the football ground"

The secondary education commission was aware of the need and importance of physical education when it stated,

"The physical welfare of youth of the country should be one of the main concerns of the state and any departure from the normal standards of well being at this period of life may have serious consequence".

Man is an indivisible integration of body, mind and soul and education must attempt to strengthen this interpretation. Thus a whole man should be given whole education. Even a narrow deviation will defeat the very purpose of education it may be curriculum followed in school, extent of schooling or development of intellectual aspect etc. as man is a psycho-physical organism so no individual, can depend upon one aspect of life for the whole of living. Montaigne has summed it up in very simple words

"It is not a soul, it is not a body that we are raining up, it is a man and we ought not to divide him into two parts".

John Locke's also supported this through his saying that

"A sound mind in a sound body is a short but full description of a happy state in this world".

It clearly states that physical education is a subject of "Man Making". With the same view, Charles. A. Butcher declared Physical Education as an Integral part of the total education process.

According to UNICEF Physical Education both inside and outside of schools is an important and vital avenue for young people to learn and develop life skills. A number of crucial components to the delivery of quality education include sports and opportunities for play, consistent with the right of the child to optimum development.

Despite recognition of the positive impact sports has on education and child development physical education is being increasingly challenged with in education system across the world. This includes a decrease in the amount of time allocated to physical education, the number of trained staff, the amount of training provided for physical education teachers and spending on resources required to deliver physical education in schools. Additional barriers are forced by girls and young people with disabilities limiting & in many cases preventing, participation in physical education and sports in many countries. While physical education systems are vastly different across the world, a recent study conducted in 126 countries indicated that the marginalization of physical education is near universal. A large no of researches are focusing on comparative studies in physical education, however the situation in developing countries and region has changed little in the past decade. This has serious implication

for access to holistic and quality education for young people, particularly those living in developing countries.

It is important to note that in some countries where physical education is minimal or nonexistent within the school system, children and young people may access sports and physical education activity through community program. These may be introduced by community clubs, a range of other organizations or through unstructured or casual games and play. Given the very poor rates of school attendance, opportunities for physical education and sports outside of schools can also provide educational advantage to children and young people.

Education: Education is a lifelong process, life itself being at school and includes all the areas that influence our life, for example home, social institution, media, play ground and environment etc. which influences and mould the character and personality of a person. Education is not limited to educational institutions alone or to specific period of life, rather this process is indirect and incidental. The process of education starts from the birth and continues till the end of life. This is well summed up by Dumvile

“Education in its wider sense includes all the influences which fall upon an individual during his passage from cradle to the grave”.

Raymont has very rightly said that ‘It is really life that educates”.

One can never claim to be completely educated as the process of learning goes on and one has to adjust himself to the changing patterns of life more so in modern and complex age. Education therefore is not merely limited to class room studies, not merely to the students but includes all individuals irrespective of their age, sex, caste or creed.

However, we should not forget that formal education is not the real education or real knowledge and importance of informal education cannot be ignored. The qualities and qualification an individual needs to achieve success in practical life cannot be generated in him by any one form of education alone. Formal and Informal process of education are not mutually exclusive and rather supplement each other. There has to be a proper balance between formal, informal, incidental and intentional modes of education, coordination and cooperation between the school and all other agencies so as to provide education in the real sense for the complete and harmonious development of an individual. The concept of education was greatly influenced by Greek philosophers and scholars. Plato was one such philosopher who recognized education as a lifelong process which, besides providing knowledge, also develops appropriate values, right attitudes and habits.

Swami Dayananda in his book Satyartha Prakash has stated that the ultimate aim of education is to lead towards liberation through development of character.

According to swami Vivekananda “the end of all education, all training should be man making”. He further elaborated the aim of education by stating that “we want that education, by which character is formed, strength of mind increased, the intellect is expanded and by which one can stand on one’s own feet”.

According to Annie Besant aim of education is “to draw out the child’s capacities and develop and train them in such a way that he becomes a useful, cultured and healthy member of the society”.

The main objective of education is not to teach or impart but to develop (John Pestalozzi). Indian education commission

(1964) observed the objectives of education as “the most important and urgent reform needed in education is to transform it to endeavor, to relate it to the life, needs and aspirations of the people and thereby make it a powerful instrument of social, economic and cultural transformation, necessary social, economic and cultural transformation, necessary for realization of the national goals”.

To sum up the main objective of education are:-

1. Physical development for optimum health.
2. Intellectual development for rational powers
3. Mental development for inner strength.
4. Cultivation of moral and ethical values for character development.
5. Spiritual and aesthetic development.
6. Raising the standard at social life.
7. Training of civic responsibility creation of useful citizens
8. Cultural development for national integration
9. Total development of personality for complete living.

Conclusion

In a nutshell it is concluded that physical education is a need of the hour and it have been proven through researches that no other school subject except physical education has the potential to improve one’s overall well-being and is one of the best preventers of significant health problems linked to many chronic diseases (e.g. obesity, high blood pressure and high cholesterol).

According to latest report by national association of sports and physical education (NASPE, 2012) and the American heart association believes physical activity achieved through participation in physical education improves one’s overall well-being. If schools are to make a positive impact on our children health now and in the future, physical education must be present in schools, be taught by qualified teachers and focus on healthy behaviors.

In terms of physical education and health aspects of child and youth development, there is an overwhelming amount of evidence that focuses on the (mostly positive) effects of sports and exercise on physical health, growth and development. To achieve broader goods in education and development of the individual and not only on the development of technical sports skills. While the physical benefits of participation in sports are very well known and supported by large volume of empirical evidence, sports and physical activity can also have positive benefits on education.

Many international and domestic policies highlighted the role of sports as a key component of child development along with the association aspects related to sports, play and recreation. There are numerous researches conducted throughout the world which serves as evidence that physical education have positive, immediate and long term effects on children health like:-

1. Physical educations have a positive effect on children physical health. It promotes healthy behaviors. Students in physical education are more physically active, eat more fruit and watch less television (Tassitano *et al.*, 2010) ^[8]. Participation in physical education diminishes the potential for future body mass increase among children (Fernandes and sturm, 2011) ^[9] physical education helps in controlling overweight or obesity (Dater and sturm, 2004) ^[10]. Participation in physical education decreases odds of being an overweight adult by 5% each day per week of physical education (Menschiket. *Et al*, 2008) ^[11]. Physical education also helps in improving dietary choices (Simms *et al.*, 2013)

- [12].
2. Physical education promotes lifelong physical activities. Quality physical education creates experiences which will enable students to transfer skills learned during physical education to their future (Mckenzie and Lounsbury, 2014) [13]. There have been numerous researches which support that HOPE (Health Opportunities through Physical Education) can improve physical activity and academic outcome. (Sallis *et al.*, 2012) [14]. Helps in achieving higher level of cardio vascular fitness (Madsen *et al.*, 2009) [15]. Involvement in physical activities provides students with the knowledge, skills, abilities, behaviors and confidence to be physically active throughout their lifetime (Houston & Kulinna, 2014) [16].
 3. Physical education has an impact on motor skills:- the acquisition of motor skills is important for children. Proficient motor skills lead to feelings of competence and results in more competence performance during sports and recreational sport like activities. (Barnett *et al.*, 2011) [17] found that children who develop proficient object control skills (eg. Throwing, catching and kicking) were more likely to become physically active later in life. Overall, there is ample evidence to support the link between childhood and long term physical activity. The importance of motor skills is recognized by SHAPE America (2014) [18], who requires physical education teachers to develop students who “demonstrate competency in a variety of motor skills and movement patterns”.
 4. Physical education has impact on brain function and academic achievement. Brain function includes cognitive skills while academic achievement includes learning behaviors physical activity is related to measures of executive function (Hillman *et al.*, 2008, Sibley & Etnier, 2003) [19]. Physical activities during childhood can positively influence brain functioning. Physical activities result in greater memory recall and develop greater memory storage. Darla castelli described in her unpublished thesis that how brain scans cognitive functioning improvement in active children who returned to resting intensities prior to undertaking cognitive tasks. She also found vigorous intense physical education is related to optimal gain in cognitive performance, improvement and speed.
 5. Physical education classes provide students opportunities to develop interpersonal relationships and improve social skills. Social and moral behavior learned in the quality physical educational settings and interactions. In physical education classes students engage in activity with others who possess varying skill levels and abilities and are charged with the task of including all in a given sport/fitness activity. Students develop an appreciation for the lifelong physical activity and recreation. Quality physical education supports positive social behavior such as cooperation personal responsibility and empathy (Bailey *et al.*, 2009) [20] cooperative physical education learning environment foster development of social skills (Ruiz *et al.*, 2010) [21].

Central to the association between physical education and health is the teacher. Teacher trained as physical educators exhibit higher levels of effective teacher behaviors (constantinides *et al.*, 2013) [22] and create quality physical education program. Trained physical education teachers can

achieve greater physical fitness improvement in children than physical education teachers who lack appropriate training (Starc & Strel, 2012) [23].

References

1. Chen S, Kim Y, Gao Z. The contributing role of physical education in youth's daily physical activity and sedentary behavior. *BMC Public Health*, 2014, 14. doi:10.1186/1471-2458-14-110
2. Trudeau F, Shepherd RJ. Physical education, school physical activity, school sports and academic achievement. *International Journal of Behavioral Nutrition and Physical Activity*, 2008, 5, doi:10.1186/1479-5868-5-10
3. Murdoch EB. Physical education and sport: the interface, in: N. Armstrong (Ed.) *New directions in physical education* (London, Cassell). 1990.
4. Whitson DJ, Macintosh D. The scientization of physical education: discourses of performance, *Quest*, 1990; 42(1):40-51.
5. DES (Department of Education and Science)/Welsh Office Physical education for ages 5–16: proposals of the Secretary of State for Education and the Secretary of State for Wales (London, DES). 1991.
6. Penney D. Physical education, sporting excellence and educational excellence, *European Physical Education Review*, 2000; 6(2):135-150.
7. Tassitano RM, Barros MVG, Tenorio MCM, Bearra J, Florindo AA, Reis RS. Enrollment in physical education is associated with health-related behavior among high school student. *Journal of School Health*, 2010; 80:126-133
8. Fernandes M, Sturm R. The role of school physical activity programs in child body mass trajectory. *Journal of Physical Activity Health*, 2011; 8:174-181.
9. Dater A, Sturm R. Physical education in elementary school and body mass index: Evidence from the early childhood longitudinal study. *American Journal of Public Health*, 2004; 94:1501-1506.
10. Mensschik D, Ahmed S, Alexander MH, Blum RW. Adolescent physical activities as predictors of young adult weight. *Archives of Pediatrics & Adolescent Medicine*, 2008; 162:29-33.
11. Simms K, Bock S, Hackett L. Do the duration and frequency of physical education predict academic achievement, self-concept, social skills, food consumption, and body mass index. *Health Education Journal*, 2013. doi: 10.1177/0017896912471040.
12. McKenzie TL, Lounsbury MAF. The pill not taken: Revisiting physical education teacher effectiveness in a public health context. *Research Quarterly for Exercise and Sport*, 2014; 85:287-292.
13. Sallis JF, McKenzie TL, Beets MW, Beighle A, Erwin H, Lee S. Physical education's role in public health: steps forward and backward over 20 years and hope for the future. *Research Quarterly for Exercise and Sport*, 2012; 83:125-135.
14. Madsen KA, Gosliner W, Woodward-Lope G, Crawford PB. Physical activity opportunities associated with fitness and weight status among adolescents in low-income communities. *Archives of Pediatrics & Adolescent Medicine*, 2009; 163:1014-1021.
15. Houston J, Kulinna P. Health-related fitness models in physical education. *Strategies*, 2014; 27:20-26.

16. Barnett LM, van Beurden E, Morgan PJ, Brooks LO, Beard JR. Childhood motor skill proficiency as a predictor of adolescent physical activity. *Journal of Adolescent Health*, 2009; 44:252-259.
17. SHAPE America. National standards and grade-level outcomes for K-12 physical education. SHAPE America: Reston, VA. 2014.
18. Hillman CH, Erickson KI, Kramer AF. Be smart, exercise your heart: Exercise effects on brain and cognition. *National Reviews Neuroscience*, 2008; 9:58-65.
19. Bailey R, Armour K, Kirk D, Jess M, Pickup I, Sandford R. The educational benefits claimed for physical education and school sport: An academic review. *Research Papers in Education*. 2009; 24(1):1-27.
20. Ruiz LM, Graupera JL, Moreno JA, Rico I. Social preferences for learning among adolescents in secondary education. *Journal of Teaching in Physical Education*, 2010; 29(1):3-20.
21. Constantinidies P, Mantalvo R, Silverman S. Teaching processes in elementary physical education classes taught by specialists and non specialists. *Teaching and Teacher Education*, 2013; 36:68-76.
22. Starc G, Strel J. Influence of the quality implementation of a physical education curriculum in the physical development and physical fitness of children. *BMC Public Health*, 12, doi:10.1186/1471-2458-12-61
23. <http://www.healthypeople.gov/2020/topicsobjectives2020/pdfs/PhysicalActivity.pdf>
24. <http://www.sparkepe.org/blog/how-physical-activity-effects-academic-performance/#sthash.g16ihyln.dpuf>
25. <http://ww.humankinectics.com/excerpts/the-impotance-of-health-fitness-and-wellness>