PARTICIPATION IN SPORTS AND ACADEMIC PERFORMANCE OF COLLEGE STUDENTS IN KASHMIR VALLEY OF J&K STATE

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ABSTRACT

In this study an attempt has been made to examine the relationship between sports and academic performance of college students. In this context to know the attitude of students towards sports a well-designed questionnaire on three point likert scale was utilized for collection of data from 400 respondents (250 boys and 150 girl students) selected through stratified random sampling technique. Kashmiri people used to take part in games and sports irrespective of their age in order to make full use of their leisure. The general perception of the people is that participation in these games enhances the physical and mental abilities of the participants. The results of the study reveal that traditional games of Kashmir valley are vanishing and older generation alone remembers them. Further, the results of our study reveal that there is link between participation in sports and performance in education and participation in sports improves academic performance. This study also confirms that younger generation is interested only in the games covered by electronic media and sports activities are very useful and helpful for enhancing the academic mission of colleges.

Keywords: College Students, Sports Participation, Attitude, Academic Performance, Kashmir

INTRODUCTION

The history of sports and games in Kashmir is perhaps as old as the Kashmiri community itself, and the types of sports found here are in tune with geographical topography of the valley. Kashmiris appear to have treated sports as a platform to inculcate a spirit of competition and also as a mode of entertainment and recreation during leisure hours. Kashmiris had strong institutions of traditional games is revealed by Walter Lawrence. Sports demanding greater physical strength were played to improve ones mental ability and logical thinking of the participants. Kashmiris are of the opinion that apart from competition and recreation sports also help in preparing the individual to face unforeseen predicaments in life as well as in up scaling the level of preparedness against the foreign invaders who would frequently disturb the peace and harmony of this lovely land, "the paradise on earth" of poets and travelers. Most of the sports and games are played amongst the youth between 11 and 23 years of age. Some seniors too chip in, at times, whenever competition becomes a bit interesting and intense. Games are usually played in the late afternoon upto dusk, when people are generally free from work. More than a dozen sports played by Kashmiri youth which can be bracketed under the traditional category, (though they are played in some modified forms around India and Pakistan as well) have been identified. Most of these sports are out-door in nature and they can be organized in different topographical terrains with minor adjustments in rules and the number of players involved. Studies on traditional sports and games of Kashmir have a significant value in the field of physical education. Some of the traditional games of Kashmir are Tsu:ri-Tshopi (chori-chupay), Lath'Kej-loth "gilli danda", Garam "hitting the pot sherds", Dab-e-Dab "Wrestling", Raz Gindun "Rope Skipping", Tuley langun "Piggy back", Tike:e-tar "Throwing of pot shereds on surface", International Journal of Innovative Research and Review ISSN: 2347 – 4424 (Online) An Online International Journal Available at http://www.cibtech.org/jirr.htm 2016 Vol. 4 (3) July-September, pp.46-54/Bhat et al.

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Ach:e-da:r or dare:daje "rag dolls", Kath-Shahe:bum "Touch the wood game", Tienka or Tenche, Saza:loung "Hop Scotch", Gulail "Sling and Stone", Archery "Teir Kaman", Tchra:nt, "Water sports". In Kashmir only a fraction of the traditional sports have been identified so far by explorers, travelers, missionaries and researchers. The traditional games of Kashmir and the attitude of people towards sports and games has been discussed recently by Bilal *et al.*, (2016). One of the most significant feature of these games is that they are played at virtually no cost or a little, if any. Weak economic condition of the subjugated people of Kashmir over the centuries may be a possible reason for non-development of expensive games.

Sociology of sports is rapidly growing applied sciences. Some people are often mistaken in defining physical education and sports education. In a broader context, physical education is defined as a process of learning through physical activities designed to improve physical fitness, develop motor skills, knowledge and behaviour of healthy and active living, sportsmanship and emotional intelligence. It is reported that United Nations Inter-Agency Task Force on Sport for Development and Peace states that young people can benefit from physical activity as it contributes to developing healthy bones, efficient heart and lung function as well as improved motor skills and cognitive function. Physical activity can help to prevent hip fractures among women and reduce the effects of osteoporosis. Remaining physically active can enhance functional capacity among older people, and can help to maintain quality of life and independence. The WHO has estimated that "one in four patients visiting a health service has at least one mental, neurological or behavioural disorder, but most of these disorders are neither diagnosed nor treated". A number of studies have shown that exercise may play a therapeutic role in addressing a number of psychological disorders. Research studies also show that exercise has a positive influence on depression. Exercise, physical activity and sport have long been used in the treatment and rehabilitation of communicable and non-communicable diseases. Physical activity for individuals is a strong means for the prevention of diseases and for nations is a cost-effective method to improve public health across populations. The Educationists and social scientists have been working since long to determine the relationship between sports and education. The research reveals a positive impact of sports and physical activities on education; and also in the academic enhancement of its participants, and a far-famed saying 'Sound mind in a sound body' referring to the potential quality of sports in the intellectual development of its participants seems to be endorsed. The research studies substantiate a positive relation between sports participation and mental health (Miller et al., 2005; Darling et al., 2005). It has been found that sports and physical activities raise the level of alertness (mental and physical) and improve intellectual functioning of the participants (Hills, 1998). Several research studies maintain that absorption and better academic outcomes are usually proportional to time spent in sports activities (Shephard, 1997; Sallis et al., 1999; Miller et al., 2005). Studies based on longitudinal research of children showed that extracurricular (sport and physical) activity participation was positively related to Grade Point Average, educational aspirations, educational /occupational attainment, and standardized achievement test scores (Young et al., 1997). The findings of the study done by Din (2006) indicate no significant impact of "school-sponsored" sports activities on the academic enhancement of the students taking part in sports. Three research studies were conducted to know the relation between sports and academic performance. The result of two studies indicated that there is no positive and negative relation between participation in sports and academic performance while one study, which was conducted in Canada in 2000, indicated a negative association between participation in sports and standardized test scores (Daley and Ryan, 2000; Fisher et al., 1996; Tremblay et al., 2000). The role of sport participation in the academic performance of students has been a topic of debate for decades. Critics observe that sport activities deflect time away from the classroom, sports diverted talent from academic programs and the students who put their energies into sports are less likely to pursue academic objectives. They do not have time or energy to achieve excellence and satisfaction in both roles. Some researchers suggested that further studies may be conducted on this topic because previous studies conducted on the topic were limited and their results were not clear (Din, 2006). Some researchers on the basis of their research said that the impact of participation in sports on academic achievement of students is still not clear (Miller et al., 2005). In

educational institutions sports activities are not regarded as essential part of education and many people have believed that participation in sports negatively effect on the education of the students (Arnett, 2006). Moreover, researchers were failed to know that relation between sports participation and academic achievement is permanent or casual (Broh, 2002). In the light of the above mentioned studies, a research study has been conducted in Kashmir valley to know the association between participation in sports and academic performance of students.

MATERIALS AND METHODS

This study was conducted in Kashmir valley of J&K State. Since no research paper or detailed study on the subject is available, an attempt was made to gather information directly from personal visits, interviews and observation. However, some secondary sources were also made use of, for a comprehensive review of literature pertaining to sports and games of Kashmir valley in order to identify them. A sample of 400 (250 boys and 150 girls) from Kashmir valley was selected through stratified random sampling technique from 8 colleges of Kashmir valley. Besides collecting basic information from the respondents, a well structured questionnaire with 15 statements on three point Likert scale "ranging from disagree to agree" was prepared. The researchers personally delivered the questionnaire to the respondents and gets back, duly filled by them. The collected data were arranged, organized, and after due coding, it was processed through Statistical Package for Social Sciences (SPSS version-20) using appropriate statistical tools. Mean score of each item was calculated and the conclusion was drawn on the basis of the calculated Mean. Mean score of 1.60 or below was considered a negative opinion towards the items, mean score of higher than 1.60 and lower than 2.00 was considered as neutral opinion towards the items, and mean score higher than 2.00 was considered as positive opinion towards the items.

RESULTS AND DISCUSSION

The data presented in Table 1 shows the distribution and the interest of respondents towards sports. Statistically, it is observed that there is non-significant difference between boys and girls respondents in case of the variables residence, family type, economic status and sports facilities available at home/locality. In case of variable interest in sports there is a significant difference in responses between boys and girls respondents.

Table 1: General Characteristics of the Studied Population

Character	Type	Gender		Chisquare	P-Value
		Boys (n=250)	Girls (n=150)		
Residence	Urban	187 (74.8%)	121 (80.67%)	1.822	>0.05
	Rural	63 (25.2%)	29 (19.33%)		
Family type	Nuclear	176 (70.4%)	92 (61.33%)	3.486	>0.05
	Joint	74 (29.6%)	58 (38.67%)		
Economic status	Lower Class	63 (25.2%)	33 (22.0%)	0.526	>0.05
	Middle Class	187 (74.8%)	117 (78.0%)		
Interest in	Yes	239 (95.6%)	106 (70.67%)	49.144	< 0.01
sports/games	No	11 (4.40%)	44 (29.33%)		
Sports facilities	Yes	107 (42.8%)	57 (38.0%)	0.394	>0.05
available at	No	153 (61.2%)	93 (62.0%)		
home/locality		•	•		

Opinion of the students towards relationship of sports and academic performance of students was measured through fifteen questions. The result is presented in Table 2. According to this table the mean score of item one is 2.23 which indicate that respondents acknowledged that sports activities play a good role in the life of college students. This is almost in accordance with the findings of Tublitz (2007) who found that sports activities are playing prominent role in the life of high schools and colleges' students.

Other studies conducted by Knox (2007), Mock (2007), Hamilton (2005) and Griffith (2004) found that sports activities play noteworthy role in the life of schools and college students. Mean score of item two is 2.01 which reveal that respondents are agreed with the statement that there is link between participation in sports and performance in education. This is almost in accordance with the findings of Baily (2006) who found that participation in sports activities help in academic achievement of its participants and there is a link between participation in sports and performance in education. Mean score of item three is 2.11 which mean that in view of the respondents' physical education and sports in colleges positively influence on the education of youth. Mean score of item four is 2.68 which confirm that in the view of vast majority of respondents' physical education and sports in colleges improve the mental or cognitive development of the youth. As we know that cognitive development focuses on developing functions of the brain such as thinking, learning, awareness, judgment, and processing information. The effect of sports on cognitive development has been remaining a topic of interest since ancient Greeks. Various research studies have proved that sports and physical activities maintain and improve the cognitive function in brain. Sibley & Etnier (2003) have given references of more than 200 studies which were conducted to know the relation of sports participation and physical exercise on cognitive development of its participants. All these studies showed a positive relationship between participation in sports and increased brain function. Mean score of item five is 2.14 which reflect that sports activities are very useful and helpful for enhancing the academic mission of colleges. Mean score of item six is 2.17 which disclose that participation in after college sports program increase the ability of students to succeed academically. Mean score of item seven is 2.11 which expose that students who participate in sports activities give excellent performance in class room. Majority of researches, conducted during the last two decades, indicate that students who participate in sports activities give excellent performance in class room (Stephens & Schaben, 2002). Numerous researchers argued that participation in sports activities play a significant role in the development of children into educated students (Griffith, 2004). Mean score of item eight is 2.35 which imply that physical education and sports should be introduced in all colleges to improve academic focus of the students. This is in line with one survey (Evenson et al., 2009) and seven research studies (Gabbard and Barton, 1979; Jarrett et al., 1998; Mahar et al., 2006) findings who found that regular participation in sports and physical activities during school days may improve academic focus and academic performance of the students. In view of the importance of sports, Fisheries college of Kashmir have kept a sports week to promote sports (Figure 1).



Figure 1: Students/Staff Cricket Team FoFy



Figure 2: Sports/Games Played in Hartal/Curfe w

Mean score of item nine is 1.93 which doesn't confirm that participation in greater physical and sports activities cause higher scores in class tests of students. This differs to the findings of Coe *et al.*, (2006) who found that participation in physical and sports activities caused higher scores in class tests of students. The reason may be political disturbance in Kashmir valley since decades. Youth generally spend sometime in sports generally indoor during hartal/curfew days (Figure 2). Mean score of item ten is 1.83 which doesn't verify that students who took part in sports activities obtain higher GPA as compared to

those students who did not take part in sports. Opinion of students of Kashmir differs from the students living in peaceful areas of the globe e.g., Galley (2000) who found Students who participated in sports activities possessed higher Grade Point Average (GPA) and better attendance in class. Mean score of item eleven is 2.03 which prove that participation in sports has positive influences on students' concentration in education. The research suggests that involvement in additional sports and physical activities improves the "brain functions" and "nourishment" among youngsters that helps to increase the level of concentration which ultimately supports in the process of "cognitive learning" (Cocke, 2002; Tremblay et al., 2000). Mean score of item twelve is 2.53 which ratify that participation in sports has positive influences on memory. According to Ratey (2002), Harvard University Professor of clinical psychiatry, and author of "A Users Guide to the Brain", physical exercise and sports improve our ability to master new, and remember old, information. He further explained that our "physical movements call upon many of the same neurons used for reading, writing and math" and "physically active people reported an increase in memory retrieval, academic abilities, I and cognitive abilities" (Ratey, 2002). Shephard (1997) states that improved brain properties resulting from participation in regular physical activity and sports "increase cerebral blood flow, change hormone levels, enhance nutrient intake, and improve arousal". In a research article Cocke (2002) stated that "Brain function may also indirectly benefit from physical activity due to increased energy generation as well as from time outside of the classroom/away from studying" Mean score of item thirteen is 1.45 which shows that respondents are not agreed with the statement that students' grades would be better if they did not participate in college sports. Mean score of item fourteen is 2.09 which assert that students' grades would worsen if they did not participate in college sports. Mean score of item fifteen is 1.57 which point out that respondents are disagreed with the statement that elimination of physical education and sports program from annual calendar of institution will improve the academic performance of students. This is our common observation that some education institutes eliminate physical education and sports programs from annual calendar because they want to give more time to class room work. In their opinion this practice will improve the academic performance of students and their standardized test scores. But several research studies conducted in U.S.A (Sallis et al., 1999) Australia (Dwyer et al., 2001) and Canada (Shephard, 1997; Ahamed et al., 2007), deny their view/ opinion. All these research studies evaluated as to how much time is devoted to physical education and sports for improving the academic performance of the students. A study indicates that there is no positive or negative impact of sports participation on academic performance of students (Carlson et al., 2008).

The data presented in Figure 1, shows that only 5.2% of boys respondents showed interest in choosing sports as their carrier while only 2% of girl students showed interest in choosing sports as their carrier. The reason they gave is the lack of infrastructure available.

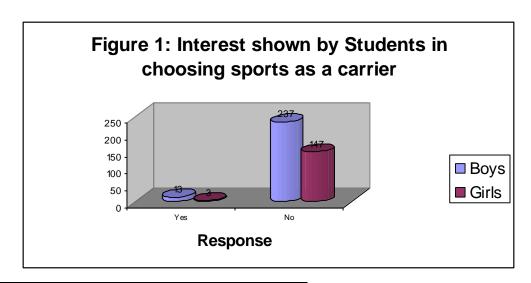


Table 1: Opinion of College Students towards Sports and its Role

S. No	Statements	Means
1.	Sports activities play a good role in the life of college students.	2.23
2.	There is a link between participation in sports and performance in education	2.01
3.	Physical education and sports in colleges positively influence on the education of youth.	2.11
4.	Physical education and sports in colleges improve the mental or cognitive development of the youth.	2.68
5.	Sports activities are very useful and helpful for enhancing the academic mission of colleges.	2.14
6.	Participation in after college sports program increase the ability of students to succeed academically.	2.17
7.	Students who participate in sports activities give excellent performance in class room.	2.11
8.	Physical education and sports should be introduced in all colleges to improve academic focus of the students.	2.35
9.	Participation in greater physical and sports activities cause higher scores in class tests of students.	1.93
10.	Students who took part in sports activities obtain higher GPA as compared to those students who did not take part in sports.	1.83
11.	Participation in sports has positive influences on students' concentration in education.	2.03
12.	Participation in sports has positive influences on memory.	2.53
13.	Students' grades would be better if they did not participate in college sports.	1.45
14.	Students' grades would worsen if they did not participate in college sports.	2.09
15.	Elimination of physical education and sports program from annual calendar of school/college improve the academic performance of students.	1.57

Conclusion

Traditional games and sports constituted an important aspect of the socio-cultural side of traditional Kashmiri life. They have almost vanished from the scene, in the urban areas and they are now rarely played in rural areas. The present study reveals that the traditional sports of Kashmir have undergone a rapid and substantial change. The increasing exposure of the entire population of Kashmir to the world outside through a variety of means like electronic media, cable networking, internet and also through interaction with people from outside the valley through tourism has had a negative effect on the growth of these games. In fact live telecast of popular sports, like that of cricket, football. Athletics and aquatics, and the glamour associated with them have swept the carpet under the feet of Kashmiri youth. It is concluded that there is link between participation in sports and academic performance and sports activities positively influence on the education of the youth. These activities are helpful for enhancing academic mission of the colleges, academic focus of the students and ability of the students to succeed academically. It is further concluded that participation in these activities improve the mental or cognitive development of youth, grade point average and class tests results. These activities have positive influence on memory and students concentration in education. The present study would help to identify the problems faced by the youth of the Kashmir valley in achieving high performance in games and sports. It is observed that only 5.2% boys and 2% girl students showed interest in choosing sports as their carrier. List of infrastructure available in colleges shows poor availability of infrastructure. The valley of Kashmir is at present going through a turmoil thus causing a number of health problems. Regular exercises can play a therapeutic role in addressing a number of psychological disorders. Sports and games have a positive influence on depression so it is suggested that youth of the conflict valley should take part in sports and physical activities regularly.

Problems Faced by Students Interested in Games and Sports

i. Lack of coaching facilities available

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- ii. Non-availability of Internet facilities to sports persons
- iii. Insufficient literature available on physical education and sports
- iv. Facilities not available for indoor and outdoor games
- v. Parents not encouraging childrens to take part in sports and act as coaches
- vi. Political disturbances, regular curfew/hartals

Suggestions for Improvement in Sports Activities

- i. Every education institution should improve standard of sports infrastructure in Kashmir valley
- ii. Sports should be made an integral part of the total educational development process
- iii. Sufficient literature on games and sports should be made available in every institution
- iv. Internet facilities and coaches should be made available in every institution
- v. Government should encourage youth and given job on priority basis to the sports persons.
- vi. Electronic media should work more for the development of sports and games in the valley
- vii. The political problem of J&K state may be solved peacefully as per the wishes of the people of J&K state, which is the biggest hurdle in the development of education system in general.

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REFERENCES

Ahamed Y, MacDonald H, Reed K, Nylor PJ, Liu- Ambrose T and McKay H (2007). School based physical activity does not compromise children academic performance. *Medicine and Science in Sports and Exercise* 38 1515-1519.

Arnett B (2006). The effects of high school athletics participation in academic achievement, discipline referrals, and school attendance. Unpublished doctoral dissertation, Argosy University, Atlanta.

Bailey R (2006). Physical Education and Sports in Schools: A Review of Benefits and Outcomes. *The Journal of School Health* 76(8) 397-401.

Bhat Bilal A *et al.*, (2016). Traditional Games and Sports of Kashmir Valley and Attitude of Kashmiri People towards Sports (communicated)

Biscoe Tyndale (2003). *Tyndale Biscoe of Kashmir: An Autobiography*, (Gulshan Publications, Srinagar, India) Re-Print.

Broh BA (2002). Linking extracurricular programming to academic achievement: Who benefits and why? [Electronic version]. *Sociology of Education* **75** 69-96.

Carlson SA, Fulton JE, Lee SM *et al.*, (2008). Physical Education and Academic Achievement in Elementary School: Data from the Early Childhood Longitudinal Study. *American Journal of Public Health* 98(4) 721-727.

Cocke A (2002). Brain May Also Pump up from Workout. Available from Society for Neuroscience Annual Meeting Web Site:

http://www.neurosurgery.medsch.ucla.edu/whastnew/societyforneuroscience.htm [Accessed April 11, 03].

Coe DP, Pivarnik JM, Womack CJ, Reeves MJ and Malina RM (2006). Effects of physical education and activity levels on academic achievement in children. *Medicine and Science in Sports and Exercise* 38(8) 1515.

Daley AJ and Ryan J (2000). Academic performance and participation in physical activity by secondary school adolescents. *Perceptual and Motor Skills* **91** 531-534.

Darling N, Caldwell LL & Smith R (2005). Participation in school-based extracurricular activities and adolescent adjustment [Electronic version]. *Journal of Leisure Research* **37** 51-77.

Din FS (2006). Sport Activities Versus Academic Achievement for Rural High School students. *National Forum of Applied Educational Research Journal*- Electronic *Volume* **19**(3e).

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An Online International Journal Available at http://www.cibtech.org/jirr.htm

2016 Vol. 4 (3) July-September, pp.46-54/Bhat et al.

Research Article

Dwyer T, Sallis JF, Blizzard L, Lazarus R and Dean K (2001). Relation of academic performance to physical activity and fitness in children. *Pediatric Exercise Science* 13 225-237.

Evenson K, Ballard K & Lee G *et al.*, (2009). Implementation of a school-based state policy to increase physical activity. *Journal of School Health* **79**(5) 231-237.

Fisher N, Juszczak L and Friedman SB (1996). Sports participation in an urban high school: Academic and psychologic correlates. *Journal of Adolescent Health* **18** 329-334.

Gabbard C & Barton J (1979). Effects of physical activity on Mathematical computation among young children. *Journal of Psychology* **103** 287-288.

Galley M (2000). Extra benefits tied to extracurricular [Electronic version]. Education Week 20(7) 8.

Griffith D (2004). More scrutiny of high school students- athletes needed to ensure academics a priority. *National Association of State Boards of Education* 1-3.

Hamilton K (2005). Putting the students back in to the student-athlete. *Black Issues in Higher Education* 1-6.

Hills AP (1998). Scholastic and Intellectual Development and Sport. In K.-M. Chan & L.J. Mitchell (edition), *Sports and Children*, (Champaign, IL, USA, Human Kinetics).

Jarrett O, Maxwell D, Dickerson C et al., (1998). Impact of recess on class room behaviour: Group effects and individual differences. The Journal of Educational Research 92(2) 121-126.

Kashir Dictionary (2011). vol.3 second edition, J&K academy of art, culture and language. "Kashmir Insight" Srinagar Vol. 6, March 2013.

Knox D (2007). High school and middle school athletes: now is the time? Coach and Athletics Director, January, 1-3.

Kumari DV (1988). *The Nilmatpurana* 1 (J & K Academy of Art, Culture and Languages, Srinagar, Jammu, India).

Lawrance Walter R (2004). The Valley of Kashmir, (Kashmir Publishing House reprint).

Mahar MT, Murphy SK, Rowe DA, Golden J, Shields AT and Raedeke TD (2006). Effects of a class room based program on physical activity and on task behaviour. *Medicine & Science in Sports & Exercise* **38**(12) 2086-94.

Miller KE, Melnick MJ, Barnes GM, Farrell MP and Sabo D (2005). Untangling the links among athletic involvement, gender, race, and adolescent academic outcomes. *Sociology of Sport Journal* 22(2), 178-193.

Mock G (2007). Students-athletes must make the grade in the classroom. Duke University News and Communications, July 3, 1-4

Nelson MC and Gordon-Larsen P (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics* **117** 1281-1290.

Ratey JJ (2002). A User's Guide to the Brain: Perception, Attention, and the Four Theaters of the Brain, (USA, New York: Vintage Books).

Sallis J, McKenzie J, Kolody B, Lewis M, Marshall S & Rosengard P (1999). Effects of Health-related Physical Education on Academic Achievement: Project SPARK. *Research Quarterly for Exercise and Sport* 70 127-134

Shephard RJ (1997). Curricular Physical Activity and Academic Performance. *Pediatric Exercise Science* 9 113-126.

Sibley BA & Etnier JL (2003). The relationship between physical activity and cognition in children: A meta- analysis. *Pediatric Exercise Science* **15** 246-256.

Stephens LJ & Schaben LA (2002). The effect of interscholastic sports participation on academic achievement of middle level school activities [Electronic version]. *National Association of Secondary School Principals Bulletin* **86** 34-42.

Tremarche PV, Robinson EM and Graham LB (2007). Physical education and its effects on elementary testing results. *Physical Educator* **64**(2) 58-64.

Tremblay MS, Inman JB and Williams JD (2000). The relationship between physical activity, self-esteem and academic achievement in 12- years old children. *Pediatric Exercise Science* 12 312-323.

International Journal of Innovative Research and Review ISSN: 2347 – 4424 (Online) An Online International Journal Available at http://www.cibtech.org/jirr.htm 2016 Vol. 4 (3) July-September, pp.46-54/Bhat et al.

Research Article

Tublitz N (2007). Re-integrating athletics in to academics: supporting the athletics academic advisor. *National Association of Academic Advisors for Athletics* June, 1-2

Young BN, Helton C & Whitley ME (1997). Impact of School-Related,106 Community-Based and Parental-Involvement Activities on Achievement of At- Risk Youth in the High School Settin. *Paper Presented at the Annual Meeting of the Mid-South Educational Research Association*, Memphis, TN. (ERIC Document Reproduction Service No. ED414533.)