



## **Full Length Research Article**

### **COMPARITIVE STUDY OF ACADEMIC ACHIEVEMENT IN SINGLE-SEX SCHOOL AND CO-EDUCATIONAL SCHOOL**

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#### **ARTICLE INFO**

##### **Article History:**

Received 29<sup>th</sup> July, 2016  
Received in revised form  
01<sup>st</sup> August, 2016  
Accepted 17<sup>th</sup> September, 2016  
Published online 31<sup>st</sup> October, 2016

##### **Key Words:**

Academic achievement,  
Education, Single-sex school,  
Co-educational school,  
Adolescents.

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#### **ABSTRACT**

Academic achievement refers to a student's success in meeting short- or long-term goals in education. In the present study for comparing the academic achievement of secondary school students of single-sex schools and co-educational schools a sample of 160 students was selected from different school of Hisar district. In the study academic achievement was dependent variable and school type was independent variable. Previous year result from the school record was used to assess the academic achievement. Result revealed that the 40% student of rural area studying in single-sex school have low academic achievement, 32 percent student have fall in medium category and only 27.50 percent student have high level of academic achievement. 45% student of rural area studying in co-educational school have medium academic achievement, 30 percent student have low academic achievement and only 25 percent student have high level of academic achievement. Result further revealed that the 50% student of urban area student studying in co-educational school have medium academic achievement, 37.50 percent student have low academic achievement and only 12 percent student have high level of academic achievement. 50% student of urban area student studying in co-educational school have medium academic achievement, 37.50 percent student have low academic achievement and only 12 percent student have high level of academic achievement. The mean academic achievement score of student belonging to single-sex school of rural and urban area (356.05 and 358.82 ) and the score of student belonging to co-educational school is (371.77 and 373.67) it leads up to conclude that the student belonging to co-educational school have better academic achievement as compare to the student belonging to single-sex school.

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#### **INTRODUCTION**

Adolescent period is associated with notable changes in mood sometimes known as mood swings. Cognitive, emotional and attitudinal changes which are characteristic of adolescence, often take place during this period, and this can be a cause of conflict, stress and depression on one hand and positive personality development on the other. Because the adolescents are experiencing various strong cognitive and physical changes, hence proper guidance at this crucial phase of life is all the more important for enhancing their positive self-concept, enriching their knowledge and skills in decision-making, conflict resolution and management of emotions. Researchers have proved that this is the most impressionable period of one's life and it is during this time the vital foundation is laid for optimum development of an individual personality.

Adolescent period of child's life is of great importance. Adolescence is one of the important periods of life. It is characterized by innumerable and unique problems. With the demands of globalization, the nature and number of challenges have become still more compared to the yesteryears. Family, which plays an important role in the personality development of adolescents, is undergoing structural, emotional and interactional transformations. Adolescence is a transitional stage of physical and mental human development that occurs between childhood and adulthood. This transition involves biological (i.e. Pubertal), social, and psychological changes, shown in their personality traits. The attitude which a child hold towards himself especially those dealing with self esteem and self worth play an important role in the development of his personality. It has been argued that the child's self confidence and his educational achievement in school are not independent phenomenon. These are affected by some of the factors like school and family environments as well as level of parent involvement. Self confidence is an essential factor for

achievement. It acts as a foundation for the development of human beings. Success in any field largely depends on degree of self confidence of a person. People having high self confidence faces the difficulties firmly and perform their work in positive manner. School is one of the most important socialization agents in which student started developing understanding of self in relation to the outside world. School climate has long been recognized as having an important effect on student personality and achievement (Stronge and Jones, 2011). Schools are the major social environments in which students share beliefs, fears, values and norms and where in turn students' "cognitive and affective functioning is shaped by the characteristics of their schools and schooling" (Hofman and Guldemond, 2012). The school effectiveness approach highlights the equal treatment of boys and girls in the classrooms for effective learning and had observed differential behaviour (Pan and Goldstein, 2004).

Whereas the sociological approach emphasized on the social production theory that considers schools as agents of socializing students to adopt gender roles as men and women in the society (Kershner and Bricheno, 2005). Hence, both the approaches, the school effectiveness approach focusing on differences in educational achievements among boys and girls in single- sex and coeducational schools and the sociological approach giving importance to the differences in educational practices within a school resulting gender differences in social and personal developments have led a discussion on the gender composition of a school and its impact on students' academic achievement and personal and social development. Education competence in the present world is interwoven with the progress of every society. The most significant agency of education is school, where an individual should learn not only academics but to adjust with the surrounding in specific and society at large. According to Chaplin (2005), educational or academic achievement is the specified level of attainment or proficiency in academic work as evaluated by the teachers, standardized or by a combination of both. Carter (2009), in the Dictionary of Education defined, achievement as knowledge acquired and skills developed in school subjects, generally indicated by marks obtained in tests. Achievement contributes strongly to one's own self- esteem. It is also important in gaining the esteem of others.

School achievements are considered to be the most important in determining the career of a student. Academic achievement of a student is greatly influenced by several psychological and sociological correlates such as attitude, teacher effectiveness, adjusting ability, socio-economic status, home and school environment. Personality is also a factor which influences the academic achievement of students. Academic achievement refers to a student's success in meeting short- or long-term goals in education. In the big picture, academic achievement means completing high school or earning a college degree. Academic achievement may also refer to a person's strong performance in a given academic arena. A student who earns good grades or awards in science has achieved in the academic field of science. Education associations and schools monitor the overall level of student academic achievement to decide what, if any, changes need to be made in the educational system. School, colleges and universities have no worth without student. Students are most essential asset for any educational institute. The social and economic development of the country is directly linked with student academic performance. The students' performance (academic

achievement) plays an important role in producing the best quality graduates who will become great leader and manpower for the country thus responsible for the country's economic and social development (Ali *et al*, 2009). Student academic performance measurement has received considerable attention in previous research, it is challenging aspects of academic literature, and science student performance are affected due to social, psychological, economic, environmental and personal factors. These factors strongly influence on the student performance, but these factors vary from person to person and country to country Academic achievement is the outcome of education — the extent to which a student, teacher or institution has achieved their educational goals. Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important — procedural knowledge such as skills or declarative knowledge such as facts.

Individual differences in academic performance have been linked to differences in intelligence and personality. Students with higher mental ability as demonstrated by IQ tests and those who are higher in conscientiousness (linked to effort and achievement motivation) tend to achieve highly in academic settings. A recent meta-analysis suggested that mental curiosity (as measured by typical intellectual engagement) has an important influence on academic achievement in addition to intelligence and conscientiousness. Children's semi-structured home learning environment transitions into a more structured learning environment when children start first grade. Early academic achievement enhances later academic achievement. Parent's academic socialization is a term describing the way parents influence students' academic achievement by shaping students' skills, behaviours and attitudes towards school. Parent influence students through the environment and discourse parents have with their children. Academic socialization can be influenced by parents' socio-economic status. Highly educated parents tend to have more stimulating learning environments. Children's first few years of life are crucial to the development of language and social skills. School preparedness in these areas help students adjust to academic expectancies. Another very important enhancer of academic achievement is the presence of physical activity. Studies have shown that physical activity can increase neural activity in the brain. Exercise specifically increases executive brain functions such as attention span and working memory. Academic achievement can be influenced by a variety of factors, from simple demographic factors, such as age, gender and family socioeconomic status to more variable factors like the quality of the teaching faculty at a student's school and the way that students with special needs are grouped together.

### Definition of Academic Achievement

**Good (1959)** refers to academic achievement as, "The knowledge obtained or skills developed in the school subjects usually designed by test scores or marks assigned by the teacher".

**Mehta (1969)** defined academic achievement as "academic performance includes both curricular and co-curricular performance of the students. It indicates the learning outcome of the students. In class rooms students performs their potentials efficiently, as a result of it, learning takes place".

The learning outcome changes the behaviour pattern of the student through different subjects.

**Crow and Crow (1969)** defined academic achievement as the extent to which a learner is profiting from instructions in a given area of learning i.e., achievement is reflected by the extent to which skill and knowledge has been imparted to him.

**Hughes, B.M. (2004)** academic performance is the outcome of educational goals that are achieved either by students or the teacher, i.e., how well a student meets standards set out by local authority or the institution it.

**Hatcher and Prul (1996)** state that academic performance refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. It is the ability to study and remember facts and being able to communicate your knowledge verbally or down on paper. Thus, it implies a process where a student's success in school is measured to determine how they stand up to others in the same areas.

### Objectives

- To study the academic achievement of students studying in single-sex schools and co-educational schools.
- To compare the effect of academic achievement of students studying in single sex-schools and co-educational schools.
- To compare the effect of gender on academic achievement of students studying in single-sex schools and co-educational schools.

### Reviews

**Devi and Kiran (2002)** studied factors associated with scholastic backwardness of secondary school children. 100 low achievers from secondary schools of Hyderabad city were selected as sample for the study. Interview schedule was used to elicit factors related to scholastic backwardness. The results reported that low educational status of parents found to be detrimental to academic achievement of their children.

**Devi and Mayuri (2003)** carried out a study of family and school factors that affect the academic achievement of residential school children studying ninth and tenth classes on a sample of 120 students of Hyderabad city. Data were collected through an interview schedule developed by the investigator to study the family factors. The result indicated significant gender difference in academic achievement and girls were found to be superior to boys in academic achievement.

**De Smedt et al. (2003)** investigated pre-academic and early academic achievement in children with vel cardiofacial syndrome of borderline or normal intelligence. In the sample 13 children from the primary schools in Flanders in Belgium was selected and tested on reading, spelling and mathematics. The results indicated no significant different in academic achievement of boys and girls.

**Tavani and Losh (2003)** studied motivation, self-confidence and expectations as predictors of academic performance. On a sample of 4012 high school students of Florida the freshman

survey instrument developed by cooperative institutional research program was employed to collect the data. The findings indicated that parental education was found to be significant predictors of educational achievement. Parental education had also positive relationship with achievement motivation of the students.

**Deary et al. (2004)** conducted a longitudinal study to examine the association between psychometric intelligence and educational achievement. The sample comprising of 70,000 school students of England participated in the study. Academic achievement was taken as the scores obtained by students in national public examination. The results showed gender difference in academic achievement. The findings indicated that the girls performed better than the boys.

**Sunitha (2005)** studied academic learning environment of students from aided and unaided co-educational high schools. The sample of 240 students was selected from the schools of Dharwad city in India. Data were collected from administering home learning environment scale developed by the researcher and academic achievement was taken as average percentage marks of the previous year and two semesters of the current year of the students. The results revealed no significant different in academic achievement of boys and girls. Parental education was also found to have significant and positive relationship with academic achievements of the students.

**Bruni et al. (2006)** explored the relationships among academic achievement, demographic and psychological factors. On the sample of 380 school students of Italy, school achievement index was used as an instrument to measure their academic achievement. The findings of the study indicated significant difference in academic achievement of male and female students. Female students were found to have higher academic achievement than males.

**Halawah (2006)** examined the effect of motivation, family environment, and student characteristics on academic achievement. On the sample comprised of 388 high school students including 193 male and 195 female students of Abu Dhabi district in United Arab Emirates. Grade point average was taken as measure of academic achievement of the students. The results revealed no significant gender difference in academic achievement of the students.

**Preiss and Franova (2006)** analysed the relationship between academic achievement and intelligence. The data were collected from the sample of 635 school children consisting 304 boys and 331 girls by using Wechsler's intelligence scale for children and grade point average. The findings indicated that there was no gender difference in academic achievement of boys and girls.

**Waters et al. (2006)** determined whether the academic performance of 575 medical students learning in rural settings differs from those learning in urban settings of Australia. Academic achievement included the results of the consecutive three years and five specialists eight week rotations conducted in either the rural clinical division for rural students or in Brisbane for urban students, all following the same curriculum and taking the same examinations. From the results no statistically significant differences were found between academic performance of rural and urban students.

**Navarrete et al. (2007)** carried out a study on culture and achievement motivation in Latino and Anglo American high school students of USA on a sample of 149 students from the high school districts in California. Data were collected by administering culture value orientation and attribution-emotion scale to the sample and grade point average was taken as academic achievement measures of the students. Socio-economic status and education of the parents had been found to influence academic achievement of the students of both the cultures.

**Nuthana (2007)** carried out a gender analysis of academic achievement of school students of Karnataka. The sample comprised of 600 students including 325 boys and 275 girls. Academic achievement was taken as the average grades of two previous years. The results of study showed that there was no significant difference in academic achievement of boys and girls. But the results indicated a significant difference in academic achievement of urban and rural students with urban students had higher academic achievement than rural counterparts.

**Tella (2007)** investigated the impact of motivation on academic achievement in mathematics. The participants of the study were 450 secondary school students of both sexes drawn from ten schools of Ibadan. Data were collected by employing achievement test in mathematics as a measure of academic achievement. The results revealed significant differences in the academic achievement of male and female students in mathematics. Male students were found to have better achievement in mathematics.

**Leeson et al. (2008)** examined cognitive ability, personality and academic performance on a sample of 639 high school students of New South Wales, Australia. The results showed significant gender difference in academic achievement. The findings also indicated that girls performed better than boys. The results revealed that gender play unique role in predicting academic achievement.

**Naderi et al. (2008)** carried out a study to infer whether intelligence and gender as predictors of academic achievement on a sample of 153 undergraduate students of Malaysian University. Cumulative grade point average scores were taken as measures of academic achievement. The results indicated that there was no significant difference between the academic achievement of male and female students.

**Chaturvedi (2009)** investigated the effect of school environment and certain demographic variables on achievement motivation and academic achievement of young adolescents. The respondents of the study were 300 students in the age range of 12-15 years of Bhopal. Percentages of marks obtained by the students in last three years were used as measures of academic achievement. The results indicated significant gender difference in academic achievement, the girls scored higher than boys significantly.

**Elizabeth (2009)** analysed the family structure and the academic achievement of 549 African American students attending rural and urban high schools in North Carolina. The results demonstrated that the female students attending both the rural and urban high schools had significant higher academic achievement levels than the male students. Results

also indicated that rural students performed better than urban students.

**Umunadi (2009)** explored the relationship between the male and female students academic achievement in the subject of television on a sample 731 students from urban and rural technical colleges in Delta State of Nigeria. The results of board examinations revealed that males performed better than their female counterparts. It was also revealed that urban students performed better than their rural counterparts.

**Garikai (2010)** empirically predicted the causes of poor academic performance of the school students on a sample of 200 high school students of Zimbabwe. Data were gathered through interview conducted with the students. The findings indicated that there was a difference in academic performance of male and female students with male students performing better and education of parents had significant effect on academic achievement of the students.

**Muola (2010)** investigated the relationship between academic achievement motivation and home environment among standard eight pupils. The sample comprised of 235 standard eight Kenyan pupils from six urban and rural primary schools from Machakos district. The results indicated a low but positive relationship (0.15) of parental education with academic achievement of the students that revealed a positive relationship between parental education and academic achievement of their children.

**Sarsani and Ravi (2010)** investigated achievement in mathematics of secondary school students in relation to selected variables. The sample of the study consisted of 480 boys and girls, drawn from the various private and government high school of Warangal city in Andhra Pradesh. Data was collected by administering scholastic achievement test of mathematics to the sample. The findings indicated significant difference between the mathematics scholastic achievement of the boys and girls. The result also showed that girls were higher achievers than boys.

**Singh and Praveen (2011)** studied the relationship of social maturity with academic achievement of high school students. The study was conducted on a sample of 400 high school students consisting 200 boys and 200 girls studying in tenth class of New Delhi. The aggregate scores of the selected students in the board examinations were taken as the measures of academic achievement. The results indicated that there were no significant differences between the academic achievement of boys and girls. The findings also revealed no significant difference in academic achievement of rural and urban students.

**Asthana (2012)** conducted a study on a sample of 300 students consisting 150 male and 150 female students of secondary education from Varanasi, with a view to assess to gender difference in scholastic achievement. Scholastic achievement was measured on the basis of an average of marks obtained in three previous annual examinations. The findings revealed that there was a significant difference in academic achievement of male and female students. Girls were found to be better performers than boys.

**Bahago (2013)** investigated the influence of achievement motivation and demographic characteristics on academic

performance of nomadic Fulani girls in Adamawa state. The data were collected from a sample of 300 girls selected from nomadic primary schools by administering achievement motivation rating scale and nomadic girls achievement test. The results indicated that academic achievement of the girls was influenced by parental education levels. The findings revealed the relevance of parental education in academic achievement of the girls.

**Sharma and Tahira (2014)** investigated the influence of parental education, parental occupation and family size on science achievement of the secondary school students in western Uttar Pradesh in India. 1500 students were selected as a sample for the study and data was collected through a questionnaire that assessed personal information and science achievement test developed by the researchers themselves. The results indicated that family variables including parental education had significant relationship with the achievement of their children. Hence, it could be concluded that the gender and geographical area in which the student live and are exposed may influence academic success of the students at all levels of education. Gender, locale and Parental education have direct influence on the academic achievement of the students.

**MATERIALS AND METHODS**

In the present study for comparing the academic achievement of secondary school students of single-sex schools and co-educational schools. A sample of 160 students was selected from different school of Hisar district. After selection of the school the investigator went to different schools and collect information from the co-operation of heads and teachers of the schools. In the study academic achievement was dependent variable and school type was independent variable. Previous year result from the school record was used to assess the academic achievement.

**RESULT AND DISCUSSION**

Table shows that the 40% student of rural area studying in single-sex school have low academic achievement, 32 percent student have fall in medium category and only 27.50 percent student have high level of academic achievement.

**Table 1. Assessment of academic achievement of student studying in single-sex school of rural area**

Academic achievement	Frequency	Frequency percentage
Low (206-324)	16	40.00
Medium (325-389)	13	32.00
High (390-404)	11	27.50
Total	40	100.00

**Table 2 Assessment of academic achievement of student studying in co-educational school of rural area**

Academic achievement	Frequency	Frequency percentage
Low (253-340)	12	30.00
Medium (341-428)	18	45.00
High (429-516)	10	25.00
Total	40	100.00

Table shows that the 45% student of rural area studying in co-educational school have medium academic achievement, 30 percent student have low academic achievement and only 25 percent student have high level of academic achievement.

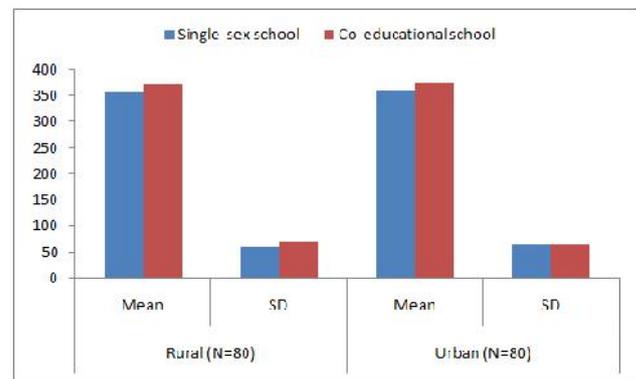
**Table 3. Assessment of academic achievement of student studying in single-sex school of urban area**

Academic achievement	Frequency	Frequency percentage
Low (253-338)	15	37.50
Medium (339-425)	20	50.00
High (426-514)	5	12.00
Total	40	100.00

Table shows that the 50% student of urban area student studying in co-educational school have medium academic achievement, 37.50 percent student have low academic achievement and only 12 percent student have high level of academic achievement.

**Table 4. assessment of academic achievement of student studying in co-educational school of urban area**

Academic achievement	Frequency	Frequency percentage
Low (253-338)	15	37.50
Medium (339-425)	20	50.00
High (426-514)	5	12.00
Total	40	100.00



**Fig. 1.**

Table shows that the 50% student of urban area student studying in co-educational school have medium academic achievement, 37.50 percent student have low academic

**Table 5. Comparison of academic achievement of rural and urban student of single-sex and co-educational school**

Academic achievement	Rural (N=80)		Urban (N=80)		Df	t-value	Level of Significance
	Mean	SD	Mean	SD			
Single-sex school	356.05	61.27	358.82	65.77	158	0.19	NS
Co-educational school	371.77	68.35	373.67	65.77		0.12	NS

NS- Not significant

\*- Significant at 0.05 level (1.96)

\*\* - Significant at 0.01 level (2.58)

Df- (n1-n2-2)

achievement and only 12 percent student have high level of academic achievement. In order to find out our significance of difference in the mean score of academic achievement in respect of rural and urban group, t-test was performed. The obtained value of 't' along with means and standard deviation are given in table. Table shows that 't' related to academic achievement came out to be non-significant as the value obtained t (0.19 and 0.12) was lesser than the table value with df 158 at 0.05 level of significance. Hence, this may be interpreted to mean that there was not significance difference in the mean score of academic achievement of rural and urban groups of students. The mean academic achievement score of student belonging to single-sex school of rural and urban area (356.05 and 358.82) and the score of student belonging to co-educational school is (371.77 and 373.67) it leads up to conclude that the student belonging to co-educational school have better academic achievement as compare to the student belonging to single-sex school. The table shows that the 't' value of academic achievement of single-sex school is less than the table value of 1.96 at 0.05 level of significance and 2.58 at the 0.01 level of significance. This indicates that there is no significant difference in the student studying in single-sex and co-educational school of rural and urban area.

## REFERENCES

- Asthana, M. 2012. Self-Concept, Mental Ability and Scholastic Achievement of Secondary School Students of Varanasi. *Journal of Community Guidance and Research*, 28: 1: 82-88
- Bahago, Beatrice A. 2013. Intelligence of Achievement Motivation and Demographic Characteristic on Academic Performance of Nomadic Fulani Girls in Adamawa State. Submitted to the School of Postgraduate Studies, University of Jos. Retrieved from Internet on July 20, 2013.
- Bruni, O., Ferini- Sterambi, L., Russo, P. M., Antignani, M., Innocenzy, M., and Ottaviano, 2006. Sleep Disturbances and Teacher Rating of School Achievement and Temperament in Children. *Sleep Medicine*, 7: 1: 43- 48.
- Caplice, K. 2005. The case for public single-sex education. *Harvard Journal of Law and Public Policy*. 18:1:227-291.
- Chaturvedi, M. 2009. School Environment, Achievement Motivation and Academic Achievement. *Indian Journal of Social Science Researches*, 6:2: 29- 37.
- De Smedt, Bert., Swiller, A., Ghesquiere, Pot, Devriendt Koenraad and Fryns, Jean- Piarre, 2003. Pre-Academic and Early Academic Achievement in Children with Velocardiofacial Syndrome of Borderline Or Normal Intelligence In United Kingdom. *Genetic Counseling*, 14: 1: 15-29.
- Deary, I. J., Strand, S., Smith, P. and Fernandes, C. 2004. Intelligence and Educational Achievement. *Intelligence*, 35:1: 13- 21.
- Devi, M.S. And Kiran, K. 2002. Family Factors Associated with Scholastic Backwardness of Secondary School Children. *Journal of Community Guidance and Research*, 19: 2: 167-172.
- Devi, S. and Mayuri, K. 2003. The Effects of Family and School on the Academic Achievement of Residential School Children. *Journal of Community Guidance and Research*, 20, 2, 139-148.
- Elizabeth, Mary J. F. 2009. A Comparative Analysis of Family Structure and the Academic Achievement Level of African American Students in Selected North Carolina schools. <http://digitalcommons.uncfsu.edu>.
- Garikai, Bonga Wellington, 2010 Determinants of Poor Academic Performance. Retrieved from Internet on March 13, 2011.
- Halawah, Ibtisam, 2006. The effects of Motivation, Family Environment and Student Characteristics on Academic Achievement. *Journal of Instructional Psychology*.
- Jones, S. and Dindia, K. 2014. A meta-analytic perspective on sex equity in the classroom. *Review of Education Research*, 74 (4), 443-471.
- Leeson, Peter, Joseph Ciarrochi and Peatrick C. L. Heaven (2008) Cognitive Ability, Personality and Academic Performance in Adolescence. *Personality and Individual Differences*, 4, 5, 63-64.
- Muola, J. M. 2010. A Study of the Relationship Between Achievement Motivation and Home Environment Among Standard Eight Pupils, *Educational Research and Reviews*, 5, 5, 213- 217
- Naderi, Habibollah, Rohni Abdullah, TengkuAizan and Jamaluddin 2008. Intelligence and Academic Achievement: An Investigation of Gender Differences, *Life Science Journal*, 7, 1.
- Navarrete, Brenda., Hector and Patricia Flynn, 2007. Culture and Achievement Motivation in Latino and Anglo American High School Students in USA. Paper Presented at Thirty first Inter American Congress of Psychology, Mexico City.
- Nuthana P. C, 2007. Gender Analysis of Academic Achievement among High School Students. Thesis Submitted in University of Agricultural Science, Dharwad.
- Priess M., Faranova L. 2006. The Depressive Symptoms, Academic Achievement and Intelligence. *StudiaPsychologia*, 48, 1, 56-67.
- Sarsani, Mahender Reddy and Ravi Maddini, 2010. Achievement in Mathematics of Secondary School Students in Selected Variables. *Edutracks*, 9, 6, 38-43.
- Sharma, Manika and Tahira Khatoon, 2014 Family Variables as Predictors of Students Achievement in Science. *Journal of Community Guidance & Research*, 28, 1, 28-36.
- Singh, Surjit and Praveen Thukral, 2010. Social Maturity and Academic Achievement of High School Students. *Canadian Journal on Scientific and Industrial Research* 1, 1.
- Sunitha, N. H. 2005. Academic Learning Environment of Students From Aided And Unaided Co-educational High School. Thesis submitted to the University of Agricultural Sciences, Dharwad, <http://etd.uasd.edu>.
- Tavani, Christopher, M. and Losh, Susan, C. 2003. Motivation, Self- Confidence and Expectation as Predictors of the Academic Performances among Our High School Students. *Child Study Journal*, 33.
- Tella, Adedeji, 2007. The Impact of Motivation on Students Achievement and Learning Outcomes in Mathematics among Secondary School Students in Nigeria. *Eurasia Journal of Mathematics, Science & Technology Education*, 3, 2, 149-156.
- Umunadi, Kennedy E. 2009. A Relational Study of Students' Academic Achievement of Television Technology in Technical Colleges in Delta State of Nigeria. *Journal of Industrial Teacher Education*, 46, 3.
- Waters B, Hughes, Forbes and Wilkinson, 2006. Comparative academic performance of medical students in rural and urban clinical settings. *Medical Education*, 40: 2: 117- 120.