Impact of socioeconomic status on academic-achievement of school students: An investigation

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Abstract
This study investigated the impact of socioeconomic status on the academic achievement of secondary school students of Delhi city. The investigator undertook the study in government as well as private schools located in Delhi and in totality 15 schools were finalized. Normative survey method upon 450 samples from class XI was utilized to gather the data. ‘Socio-economic Status Scale’ (SESS) was used while the total marks obtained by the students in the previous class, i.e. standard X were used as an achievement criteria and for data analysis Mean, SD, one way ANOVA, t-test were employed. The result of this study showed the difference between high and low socioeconomic status groups. This study further reveals that gender influences the academic achievement at secondary school (Standard - XI) level. It is also found that the academic achievement was influenced by the socioeconomic status and those who belonged to high & middle socioeconomic status have shown better performance. Based on these findings, some recommendations were given with great implications for both practice and further studies.

Keywords: Adolescents, Academic Achievement, Gender, Socioeconomic Status

1. Introduction
Human life, which is the best creation of god, has got two aspects: The biological and sociological or cultural. While the former is maintained and transmitted by food and reproduction, the latter is preserved and transmitted by education. It is through education that child promotes his intelligence and adds his knowledge with which he can move his world for good and for evil according to his own wishes. Education, in fact, is one of the major “life processes” of the human beings “just as there are certain indispensable vital processes of life in a biological sense. So education may be considered a vital process in a social science. Education is indispensable to normal living, without education the individual would be unqualified for group life Safaya (1963) [54].

Academic Achievement undertakes primary importance in the context of an education system aimed at the progressive scholastic achievement of the students and human resources development at the macro level. The education of a child is monitored on the basis of his academic achievement. Academic achievement is the core of the wider term i.e. educational growth. The importance of academic achievement in one’s life cannot be overemphasized. It acts as an emotional tonic. Sound academic records are the pillars on which the entire future disposition stands. Academic achievement has always been the center of educational research and despite varied definitions about the aims of education, the academic development of the child continues to be the primary and most important goal of education. Life in general and for a student in particular has become highly competitive. Today there is no place for a mediocre student. There is limited room at the top that too only for the best. The importance of scholastic and academic achievement has raised important questions for educational researchers. What factors promote achievement in students?

In this context, the role of socioeconomic status cannot be denied as it has a great effect on personality, learning and development of the individual and his academic achievement. How far do the different factors contribute towards academic achievement? Ramaswmy (1990) [46]. Family background and its socioeconomic status are a key to a student’s life and outside
of school and also influences students’ academic achievement. The environment at home is a primary socialization agent and influences a child’s interest in school and aspirations for the future. A family’s socioeconomic status is based on family income, parental education level, parental occupation, and social status in the community, such as contacts within the community, group associations, and the community’s perception of the family, Demarest, Reisner, Anderson, Humphrey, Farquhar, and Stein (1993) [11]. Studies have repeatedly found that SES affects student outcomes (Baharudin and Luster 1998, Jaynes 2002, Eamon 2005, Majoribanks 1996, Hochschild 2003, McNeal 2001, Seyfried 1998)[7, 29, 18, 31, 26, 35 51]. The social economic and educational status of a family determines the quality of academic achievement of a student. It is generally believed that children from high and middle socioeconomic status parents are better exposed to a learning environment at home because of the provision and availability of extra learning facilities. This idea is supported by Becker & Tomes (1979) [9] when they assert that it has become well recognized that affluent and well-educated parents ensure their children’s future earnings by providing them a favorable learning environment, better education, and good jobs. While the size of the impact has been debated (Mayer, 1997) [32], there is compelling evidence that increases in family income, particularly among poor families, have a positive impact on children (Costello et al. 2003; Morris & Gennetian, 2003; Gershoff et al. 2007) [10, 33, 22]. In contrast to this belief, children from low socioeconomic status parents do not have access to extra learning facilities; hence, the opportunity to get to the top of their educational ladder may not be very easy. Numerous studies have established a link between poverty and children’s cognitive abilities and social-emotional competence (e.g. Mayer, 2002; Gershoff et al. 2003; Dahl & Lochner, 2005) [34, 23, 12]. Impoverished learning environments are likely to impact on children’s cognitive skills and language (Feinstein, 2003), whereas poverty that impacts on parenting practices and well-being is linked to behavioral difficulties in children as young as five (Bor et al. 1997) [3], Drummond & Stipek (2004) [13] while discussing their “Low-income Parents’ beliefs about their role in children’s academic learning” mentioned that a few of these parents indicated that their responsibilities were limited to meet children’s basic and social emotional needs, such as providing clothing, emotional support, and socializing manners. So these parents’ short sightedness toward their accountabilities in the educational processes of their children and inadequacy of fund to intensify such processes could be a challenge to their children’s success. The present study makes a humble exertion to investigate the impact of student’s socioeconomic status on the academic achievement of secondary school students.

2. Conceptual Framework

At the time of lively appraisal and assessment of educational development, when many changes are being witnessed in organization, curricula and teaching techniques, it was pertinent to seek systematic and up to date information about the factors which are associated with academic achievement. Besides other factors, socioeconomic status is one of the most researched and debated factor among educational professionals that contribute towards the academic performance of students. The most prevalent argument is that the socioeconomic status of learners affects the quality of their academic performance so it is appropriate, in this context, to consider at once the factors affecting academic achievement such as the student’s socioeconomic status. In much of the literature, socioeconomic risk factors generally are found to be more strongly associated with children’s long-term cognitive and language than with their social-emotional outcomes (Duncan & Brooks Gunn, 1997; Duncan et al. 1998; Aber, Jones, & Cohen, 2000) [14, 15, 1], although links between poverty and children’s behavioural outcomes have also been established (e.g. Dearing, McCartney, & Taylor, 2001). Chopra (1969) [16, 9] found that higher socioeconomic group students were significantly higher than those of the students from the middle and lower socio-economic group and also revealed a positive relationship between socio-economic status and achievement in various subjects. No significance of difference was revealed between boys and girls with regard to their academic achievement Subramanayam & Rao (2008) [49]. No gender based statistical significant differences were found by Odeh (2007) [41], Mlambo (2011) [38], Abubakar and Adeboyega (2012) [5], Abdu-Raheem (2012) [4], Kangahi et al. (2012) [30], Gupta et al. (2012) [24], Josiah and Adejoke (2014) [28]. Harikrishan (1992) [25] revealed that Socio-economic status was significantly and positively related to academic achievement. Goswami (1982) [21] found that the upper socio-economic status group has done significantly better than the lower socioeconomic group in the achievement tests of science, languages and humanities. Rothman’s (2003) [44] analysis revealed that a student who comes from a higher socioeconomic group showed better test results than a student from a lower socioeconomic group. Sirin (2005) [48] explains, “…methodological characteristics, such as the type of SES measure, and student characteristics, such as student’s grade, minority status, and school location, moderated the magnitude of the relationship between SES and academic achievement.” The relationship is still clear and strong enough, however, to permit statements such as the following: “Socio-economic status differences in children’s reading and educational outcomes are ubiquitous, stubbornly persistent and well documented” Atkin and Barbarin (2008) [45]. The relationship between SES and academic achievement is due to a complex interaction of a number of variables, it appears to be generally accepted that SES impacts to a considerable extent on various aspects of students’ learning experiences. Meeuwisse, Severiens and Born (2010) [39] examined the interaction of multiple variables in students’ decisions to withdraw from higher education. They support the general theme that emerges in all of the studies reviewed herein: The interplay of variables that characterizes the investigation of SES and aspects of students’ behavior, choices and outcomes is tremendously complex. A significant difference was found in academic achievement and socioeconomic status of students studying in different types of schools panda (1998). A significant difference was found in academic achievement and socioeconomic status of students studying in different types of schools panda (1998). Marked relationship was found between academic achievement and school intervention in the schools Pada (2000). Good, average and poor adjustment groups significantly differ with respect to their academic achievement.
Surekha (2008) [30]. The academic achievement of non-Muslim children were found superior in comparison to their Muslim counterparts Alam (2001) [2]. The rural and urban subsequent generation learners have better academic achievement than rural and urban first generation learners Sood and Kumar (2007) [32]. On the other hand, no gender based statistical significant differences were found by Odoh (2007) [41], Mlambo (2011) [38], Abubakar and Adegboyega (2012) [3]; Abdu-Raheem (2012) [4]; Kangahi et al. (2012) [30]; Gupta et al. (2012) [24]; Josiah and Adejoke (2014) [28].

The above discussion lead the researcher to explore the impact of socioeconomic status on adolescents’ Academic Achievement which appear to be yet an unexplored territory in the area of research and have a great significance for the educationists, planners and parents. The novelty and validity of the present study justify with the time to study and explore the unknown, so that development of the adolescents as well as of the nation can be accelerated. Therefore, the study was explored under major objective i.e. To study the impact of socioeconomic status on the Academic Achievement of adolescent students with two hypotheses. These were:

1. There is no significant difference in the Academic Achievement of adolescents having high socioeconomic status, middle socioeconomic status and low socioeconomic status.

2. There is no significant difference in Academic Achievement of male and female adolescents having a) high socioeconomic status b) middle socioeconomic status c) low socioeconomic status.

3. Justification of the Study
One of the most important outcomes of any educational set up is achievement of the students. Many studies indicate that the academic achievement is dependent on variables like school/college set-up and its organization, socioeconomic status of students, educational aspiration, well-adjusted behavior etc. Besides these the personal characters, vocational aspirations, creativity, intelligence, attitude, values, etc. also influence it. But socioeconomic status plays a major role. The division of society into different classes and association of parents with a certain class and its link with the education of their children is an all important feature of our society. The home, as is universally accepted, is the first school of the child. As such, a suitable home environment is most conducive to the spread of education among its young members. Parent’s socioeconomic status is an important factor in shaping their attitude towards encouragement or neglect of the education of children. Students belonging to high socioeconomic status could get easily all the necessary things which they require for their high achievement. Families with high socioeconomic status often have more success in preparing their young children for school because they typically have access to a wide range of resources to promote and support young children’s development. They are able to provide their young children with high-quality child care, books, and toys to encourage children in various learning activities at home. Also, they have easy access to information regarding their children’s health, as well as social, emotional, and cognitive development. In addition, families with high socioeconomic status often seek out information to help them better and prepare their young children for school. To realize the democratic ideal of equalizing educational opportunity, it’s necessary to estimate the extent to which progress in education is required i.e. academic achievement at secondary school level in Delhi is being influenced by the socioeconomic variables. The present investigation therefore was conducted to fulfill this need and aimed at to explore the impact of the socioeconomic variables with academic achievement. It was assumed that the conclusions drawn on the basis of the study regarding the effect of socioeconomic status on academic achievement might provide necessary guidelines for improving the academic achievement at secondary school level.

4. Methodology
The method adopted for the study was descriptive and statistical in nature. This method is designed to procure information on conditions and practices as they exist. In the present investigation, the population was stipulated and defined as all adolescent male and female adolescent students studying in class XI of schools in Delhi. The sample consisted of both adolescent girls and boys students studying in class XI. 15 girls and 15 boys were selected from public schools, whereas the sample distribution slightly differed in government school due to enrollment. From each government school 30 girls and 30 boys were randomly selected from the list of students. In totality 15 schools were finalized from all over Delhi as sample schools and 450 sample students were selected from class XI. Special care was taken to select equal representation of boys and girls. Every geographical area was represented by two governments and one private school, i.e. government boys’ school, government girls’ school and public co-ed school. In this manner, the final sample of 450 students was chosen.

5. Tools Used
In the present study, following standardized tools were used:-
1. ‘Socio-economic Status Scale’ (SESS) standardized by A. K. Kalia and Sudhir Sahu (2012) was utilized to measure the socioeconomic status of adolescents.
2. Academic achievement- the academic achievement of students was recorded from school record.

6. Statistical Techniques Used
In order to study the nature of data, descriptive statistics i.e. Mean SDs and inferential statistics i.e. one way ANOVA and t-test were computed with the help of SPSS Statistical package17.0 (version). For further investigation, Duncan’s Mean test was employed.

7. Result and Discussion
The objective of the present study was to find the impact of socioeconomic status on the Academic Achievement of adolescent students. Investigator categorized all the students into three categories on the basis of socioeconomic status a) high SES b) middle SES c) low SES respectively. An investigator employed, ‘t’ test to compare Academic Achievement of male and female adolescent students. In order to find out the difference in the Academic Achievement of students having high, middle and low socioeconomic status, their respective scores were taken into considerations and significance of difference in the mean values of these three
levels of scores have been calculated by means of adopting by one way analysis of variance or F- test. In order to determine the significant difference between means of categories taken two at a time, the categories were subjected to Duncan’s Test. This test was administered to find out t- ratio between (Low and Middle) socioeconomic status (Middle and High) socioeconomic status, (High and Low) socioeconomic status. Data analysis was performed on a computer with SPSS 17 software package. Table -1 presents mean, SD’s and t-value of Academic Achievement scores of male and female adolescent students.

Table 1: Comparison of Academic -Achievement scores between male and female adolescent students

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>225</td>
<td>78.071</td>
<td>46.79</td>
<td>1.997*</td>
</tr>
<tr>
<td>Female</td>
<td>225</td>
<td>71.482</td>
<td>16.0947</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level

Table no.1 shows the mean scores of male and female adolescent students with respect to their Academic-Achievement. The tabulated values of ‘t’ with degree of freedom 448 are 1.96 at 0.05 level of signficance and 2.58 at 0.01 level of significance. The calculated value of ‘t’ is 1.564 which is higher than the table value at 0.05 levels, which shows significant difference in the Academic - Achievement of male and female adolescent students. As the Table-1 depicts male students showed better academic achievement than female students. This may be due to the fact that this group of male adolescents are more focused and pay more attention to secure good marks and hence work hard more as compared to their female counterparts. Jovanovic et al. (1994) [27]; Maliki et al. (2009) [30]; Awofala (2011) [4]; Doris et al. (2012) [17]; Udida et al. (2012) [36]; Oluwagbohunmi (2014) [46] disclosed that male students performed better than females and the results were statistically significant.

Table 2: Comparison of academic achievement scores between male and female adolescent students having high socioeconomic status

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33</td>
<td>78.13</td>
<td>14.46</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>38</td>
<td>81.39</td>
<td>8.056</td>
<td>1.270 NS</td>
</tr>
</tbody>
</table>

NS- Not Significant

Above table-2 shows mean academic achievement scores of male and female adolescent student respondents having high socioeconomic status which are 78.13 and 81.59. The t-ratio of these means comes out to be 1.270. The tabulated values of ‘t’ with degree of freedom (N-2) 69 are 2.00 and 2.65 at 0.05 level and 0.01 level of significance. The calculated value of ‘t’ is 1.270 which is less than the table value and reveals no significant difference in academic achievement of male and female adolescent students having high socioeconomic status. Hence, the null hypothesis ‘there is no significant difference in academic achievement of male and female adolescents having high socioeconomic status’ is accepted.

Table 3: Comparison of academic achievement scores between male and female adolescent students having middle socioeconomic status

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>123</td>
<td>85.18</td>
<td>60.92</td>
<td>1.564 NS</td>
</tr>
<tr>
<td>Female</td>
<td>93</td>
<td>75.07</td>
<td>15.01</td>
<td></td>
</tr>
</tbody>
</table>

NS- Not Significant

Above table-3 shows the mean academic achievement scores of male and female adolescent student respondents having middle socioeconomic status which are 85.18 and 75.07. The t-ratio of these means comes out to be 1.564. The tabulated values of ‘t’ with degree of freedom (N-2) 214 are 1.97 and 2.60 at 0.05 level and 0.01 level of significance. The calculated value of ‘t’ is 1.564 which is less than the table value at both the levels shows no significant difference in academic achievement of male and female adolescent students having middle socioeconomic status. Hence, the null hypothesis ‘there is no significant difference in academic achievement of male and female adolescents having middle socioeconomic status’ is accepted.

Table 4: Comparison of academic achievement scores between male and female adolescent students having low socioeconomic status

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>69</td>
<td>65.37</td>
<td>14.197</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>94</td>
<td>63.84</td>
<td>16.165</td>
<td>.627 NS</td>
</tr>
</tbody>
</table>

NS- Not Significant

Above table 4.20 shows the mean academic achievement scores of male and female adolescent student respondents having low socioeconomic status which are 65.37 and 63.84. The t-ratio of these means comes out to be .627. The tabulated values of ‘t’ with degree of freedom (N-2) 161 are 1.98 and 2.61 at 0.05 level and 0.01 level of significance. The calculated value of ‘t’ is .627 which is less than the table value at both the levels which shows no significant difference in academic achievement of male and female adolescent students having low socioeconomic status. Hence, the null hypothesis ‘there is no significant difference in academic achievement of male and female adolescents having low socioeconomic status’ is accepted.

Table 5: Comparison of academic achievement scores among three categories of Socioeconomic status (High, Middle and Low) – Duncan’s Mean Test

<table>
<thead>
<tr>
<th>Low SES (N=163)</th>
<th>Middle SES (N=216)</th>
<th>High SES (N=71)</th>
<th>Lowvs Middle</th>
<th>Middlevs High</th>
<th>Highvs low</th>
<th>F-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>64.49</td>
<td>15.34</td>
<td>80.83</td>
<td>47.19</td>
<td>79.99</td>
<td>11.53</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

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Table no. 5 shows a comparison of academic achievement scores among three categories of socioeconomic status (high, middle, low). The academic achievement scores of the three categories of SES were subjected to analysis of variance which yielded an F-value equal 11.50 which is statistically significant at 0.01 level of significance. Hence the null hypothesis “there is no significant difference in academic achievement of adolescents having high socioeconomic status, middle socioeconomic status and low socioeconomic status” is rejected. This shows that there is a significant difference in Academic Achievement scores of adolescents having high socioeconomic status, middle socioeconomic status, low social economic status. In order to determine the significant difference between means of categories taken two at a time, the categories were subjected to Duncan’s Test. This test was administered to find out t- ratio between (Low and Middle) socioeconomic status (Middle and High) socioeconomic status, (High and Low) socioeconomic status. An examination of Table-5 reveals that the mean score of academic achievement of High socioeconomic status adolescents (79.99) is lower than that of Middle socioeconomic status adolescents (80.83) and it further reveals that the mean score of academic achievement of Middle socioeconomic status adolescents (80.83) is higher than that of Low socioeconomic status adolescents (64.49). The result of Duncan’s test shows that there is a significant difference between (Low and Middle) socioeconomic status & (High and Low) socioeconomic status categories. But no significant difference was found between (Middle and High) socioeconomic status categories with respect to their academic achievement. In the light of this result, we can interpret that adolescents having High & Middle socioeconomic status have better academic achievement than adolescents having Low socioeconomic status, since no significant difference was found between (Middle and High) socioeconomic status categories it indicates that both possess similar academic achievement. The results of the present study throws adequate light on the impact of Socioeconomic Status on academic achievement. The students belonging to low socioeconomic status have better academic achievement than adolescents having High & Middle socioeconomic status. But no significant difference was observed in Academic Achievement scores of male and female adolescent students who have a middle socioeconomic status.

No significant difference was found in Academic Achievement scores of male and female adolescent students having low socioeconomic status. A significant difference was observed in Academic Achievement scores of male and female adolescent students having high socioeconomic status. A significant difference was found in Academic Achievement scores of male and female adolescent students having high socioeconomic status, middle socioeconomic status, low socioeconomic status having male students showed better academic achievement than female students. In the context of mean scores it can be interpreted that the groups of male adolescents are more focused and pay more attention to secure good marks and hence work hard more as compared to their female counterparts.

9. Implications of the Study
Any research work can be considered effective only when the fund of knowledge generated through it can be applied to improve the existing practices of education. The present study throws adequate light on the impact of Socioeconomic Status on academic achievement. The results of the present study reveal that adolescents having High & Middle socioeconomic status have better academic achievement than adolescents having Low socioeconomic status. The students belonging to low socioeconomic status should be financially helped and adequate scholarship should be given to them. The students of low status should be encouraged to participate in different activities so that they can compensate their feelings of inferiority with education and co-curricular achievement. Such activities should be organized for students of lower class which enable them to compete with the students belonging to higher status families. The children of illiterate or poorly educated parents should be provided facilities for attending the summer coaching classes during the summer vacations to supplement regular programmes of the schools. The health care services should be provided to diminish the gap of health inequality. Teacher’s treatment should be judicious towards high and low Socioeconomic status students. So that students belonging to low socioeconomic status may not realize that they discriminate on the basis of socioeconomic status. The teacher and teacher educators should organize programme which contribute to develop learning by earning. It should be made an integral part of the curriculum. This means that teacher educators should provide opportunities to students for work experience. The teacher should make them aware of
their potentialities and try to develop them to the maximum. The policies should be made for the parents belonging to lower socioeconomic status to enable their children having equal educational opportunities in the educational institutions.

10. Reference
43. Pada M, Jena AK. Effects of some parental characteristics on class IX student’s achievement motivation. Indian Psychol. Rev 2000; 54 (3):129-133.