

INCOME AND ACADEMIC ACHIEVEMENT AMONG ELEMENTARY STUDENTS IN RURAL ODISHA

*Dr. Manas Kumar Malik

Abstract

Indian constitution has an objective to guarantee social, political and economic justice to all regardless of caste, creed and religion. When it was framed, it was visualized that, development in education along with other allied sectors will play a vital role in bringing about desirable changes in the country, where in opportunity is provided to develop critical thinking and self-determination. Hence the programmes in India intended to bring in equalization of educational opportunities face specific and unique problems. Lack of access to government schools, lower political participation and representation of underprivileged groups in governance structure, under representation in mainstream economic activities and inequalities in access to credit are possible reasons for educational backwardness. Education represents one way to break out of cycles of poverty and distress, but it is also a by-product of such economic conditions prevails among Dalit children than Non-Dalit counterparts. The study intense to reveal the relationship between Dalit than Non-Dalit children in accordance with Income and Academic Achievement in elementary level of education in Odisha. As education is an important agent of change; it is worth knowing academic achievement among deprived communities. This study and regionspecific data will provide an important data base for understanding the educational achievements and challenges.

Keywords: Dalit, Non-Dalit, Academic Achievement, and Elementary Education

I. Introduction

Academic achievement of students is a primary concern in the process of formal education and there is a high emphasis on assessment of knowledge and skills developed through the educational system which is largely evaluated at school level through the exams (Goods, 1995; Biswas and Aggarwal, 1971). It is also a feedback mechanism for schools and teaching, but in the Indian context it is looked at as an individual capacity of students. Dalits in rural India are an economically and socially depressed group, with most of the developmental

¹Guest Faculty, Department of Sociology, Central University of Odisha, Koraput

indicators like nature of occupation/livelihood, employment rates, poverty rates and literacy rates being worse off than the non-dalit social group. Children of the scheduled castes also face an exclusion from essential services and the incidence of child labour is exceptionally high, especially among dalit girls. In fact, the data provides evidence, that even among families of equal economic standing, Dalit experience higher school drop-out rates and lower access to service facilities as compared tonon-scheduled groups (Nidhi, 2009).Chandidas (1969) in a post-independence study examined the equality ofscheduled castes, with the data from Centre for the Study of Developing Societies (CSDS). After two decades of special concessions to bring them at par with the general population, the scheduled castes remained at the rear end of development. In the agricultural sector, where the scheduled castes were concentrated, their position as compared with that of the non-scheduled castes, was inferior regarding land as well as size of the holdings. Their level of education and their average per-capita income in comparison to the non-scheduled castes was also lower.Poor levels of educational achievement among scheduled castes and scheduled tribes can be best understood in the context of deeply embedded caste and social hierarchies that are enacted and expressed in everyday social interactions of community, school and economic life. Recent studies show that caste-based discrimination continues to be an influential factor in the low educational mobility of both scheduled caste and scheduled tribe groups, despite government programmes that selectively target aid to children from these communities (Secada, 1989).

The academic achievement of children across income groups gives clear evidence that relatively greater proportion of students in higher income havehigher academic achievement and greater proportions in lower economic group have lower scores on academic achievement(see Table 1).

Table 1. Level of Academic Achievement by Family Income of respondents

| Level of Academic achievement | Up to Rs. 30000 | | Rs. 30001 and above | |
|-------------------------------|--------------------|-------|---------------------|-------|
| | No. of respondents | % | No. of respondents | % |
| Low | 39 | 41.1 | 8 | 15.1 |
| Medium | 39 | 41.1 | 17 | 32.1 |
| High | 17 | 17.8 | 28 | 52.8 |
| Total | 95 | 100.0 | 53 | 100.0 |

Cross tabulation of background factors with academic achievement indicates that irrespective of the economic group better performers are at a younger age though the proportion of older group increases in higher economic groups. Across the income group male children shows better academic achievement in both groups, though relatively more females are in higher income group. Similarly more non-dalits are better performers in both income levels though the proportion of dalits slightly increased in higher economic group. It is also observed that in

both groups, better performers are in higher classes of 7th and 8th, with a relatively higher proportion of better performers in higher standards among higher economic groups and better performers in lower classes for lower income groups. In both economic groups better performers have parents in the age group of 36 to 45 years and father's educated up to secondary level and above. Regarding mother's education primary education is noticeable among lower income groups, and primary and secondary level is significant in higher economic groups. Parental occupation even as agriculture labourers is significant for lower income groups and employment in government or private organisations are important for higher income groups. Better performing students are only in nuclear families of lower income groups while a significant proportion are in joint families in higher income groups. No major difference exists in terms of family size, number of children and academic achievement in both groups. Better performers in lower income group have medium size of peer network while among higher income group; the network size is relatively larger(see Table 2).

Table 2. Level of Academic Achievement and Background factors by Family Income of respondents

| Background factors | Up to Rs. 30000 | | | | Rs. 30001 and above | | | |
|--------------------|-------------------------------|--------|-------|-------|-------------------------------|--------|-------|-------|
| | Level of Academic Achievement | | | | Level of Academic Achievement | | | |
| | Low | Medium | High | Total | Low | Medium | High | Total |
| Age | | | | | | | | |
| Up to 11 Yrs | 7 | 16 | 8 | 31 | 2 | 5 | 10 | 17 |
| | 17.9% | 41.0% | 47.1% | 32.6% | 25.0% | 29.4% | 35.7% | 32.1% |
| 12 yrs | 16 | 15 | 4 | 35 | 5 | 1 | 10 | 16 |
| | 41.0% | 38.5% | 23.5% | 36.8% | 62.5% | 5.9% | 35.7% | 30.2% |
| 13 yrs and above | 16 | 8 | 5 | 29 | 1 | 11 | 8 | 20 |
| | 41.0% | 20.5% | 29.4% | 30.5% | 12.5% | 64.7% | 28.6% | 37.7% |
| Gender | | | | | | | | |
| Male | 20 | 29 | 14 | 63 | 3 | 11 | 18 | 32 |
| | 51.3% | 74.4% | 82.4% | 66.3% | 37.5% | 64.7% | 64.3% | 60.4% |

| | | | | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Female | 19 | 10 | 3 | 32 | 5 | 6 | 10 | 21 |
| | 48.7% | 25.6% | 17.6% | 33.7% | 62.5% | 35.3% | 35.7% | 39.6% |
| Caste | | | | | | | | |
| Non SC | 8 | 23 | 15 | 46 | 6 | 9 | 23 | 38 |
| | 20.5% | 59.0% | 88.2% | 48.4% | 75.0% | 52.9% | 82.1% | 71.7% |
| SC | 31 | 16 | 2 | 49 | 2 | 8 | 5 | 15 |
| | 79.5% | 41.0% | 11.8% | 51.6% | 25.0% | 47.1% | 17.9% | 28.3% |
| Level of schooling | | | | | | | | |
| 5 th & 6 th | 11 | 17 | 7 | 35 | 2 | 4 | 9 | 15 |
| | 28.2% | 43.6% | 41.2% | 36.8% | 25.0% | 23.5% | 32.1% | 28.3% |
| 7 th & 8 th | 28 | 22 | 10 | 60 | 6 | 13 | 19 | 38 |
| | 71.8% | 56.4% | 58.8% | 63.2% | 75.0% | 76.5% | 67.9% | 71.7% |
| Parents Age | | | | | | | | |
| Up to 35 yrs | 8 | 12 | 3 | 23 | 1 | 1 | 5 | 7 |
| | 20.5% | 30.8% | 17.6% | 24.2% | 12.5% | 5.9% | 17.9% | 13.2% |
| 36 – 45 yrs | 23 | 18 | 13 | 54 | 6 | 12 | 19 | 37 |
| | 59.0% | 46.2% | 76.5% | 56.8% | 75.0% | 70.6% | 67.9% | 69.8% |
| 46 yrs and above | 8 | 9 | 1 | 18 | 1 | 4 | 4 | 9 |
| | 20.5% | 23.1% | 5.9% | 18.9% | 12.5% | 23.5% | 14.3% | 17.0% |
| Father's education | | | | | | | | |
| Illiterate | 3 | 2 | 0 | 5 | 0 | 0 | 1 | 1 |

| | | | | | | | | |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 7.7% | 5.1% | .0% | 5.3% | .0% | .0% | 3.6% | 1.9% |
| Primary | 16 | 12 | 4 | 32 | 1 | 3 | 5 | 9 |
| | 41.0% | 30.8% | 23.5% | 33.7% | 12.5% | 17.6% | 17.9% | 17.0% |
| Upper primary | 9 | 7 | 4 | 20 | 1 | 5 | 5 | 11 |
| | 23.1% | 17.9% | 23.5% | 21.1% | 12.5% | 29.4% | 17.9% | 20.8% |
| Secondary and above | 11 | 18 | 9 | 38 | 6 | 9 | 17 | 32 |
| | 28.2% | 46.2% | 52.9% | 40.0% | 75.0% | 52.9% | 60.7% | 60.4% |
| Mother's education | | | | | | | | |
| Illiterate | 3 | 2 | 3 | 8 | 1 | 4 | 1 | 6 |
| | 7.7% | 5.1% | 17.6% | 8.4% | 12.5% | 23.5% | 3.6% | 11.3% |
| Primary | 18 | 11 | 7 | 36 | 5 | 3 | 11 | 19 |
| | 46.2% | 28.2% | 41.2% | 37.9% | 62.5% | 17.6% | 39.3% | 35.8% |
| Upper primary | 9 | 11 | 5 | 25 | 0 | 5 | 5 | 10 |
| | 23.1% | 28.2% | 29.4% | 26.3% | .0% | 29.4% | 17.9% | 18.9% |
| Secondary and above | 9 | 15 | 2 | 26 | 2 | 5 | 11 | 18 |
| | 23.1% | 38.5% | 11.8% | 27.4% | 25.0% | 29.4% | 39.3% | 34.0% |
| Father's occupation | | | | | | | | |
| Agricultural Labourers | 24 | 24 | 7 | 55 | 5 | 10 | 7 | 22 |
| | 61.5% | 61.5% | 41.2% | 57.9% | 62.5% | 58.8% | 25.0% | 41.5% |
| Employee in Govt. or private sector | 7 | 8 | 4 | 19 | 2 | 3 | 14 | 19 |
| | 17.9% | 20.5% | 23.5% | 20.0% | 25.0% | 17.6% | 50.0% | 35.8% |

| | | | | | | | | |
|--------------------------|-------|-------|--------|-------|-------|-------|-------|-------|
| Others | 8 | 7 | 6 | 21 | 1 | 4 | 7 | 12 |
| | 20.5% | 17.9% | 35.3% | 22.1% | 12.5% | 23.5% | 25.0% | 22.6% |
| Type of family | | | | | | | | |
| Nuclear Family | 38 | 37 | 17 | 92 | 7 | 16 | 22 | 45 |
| | 97.4% | 94.9% | 100.0% | 96.8% | 87.5% | 94.1% | 78.6% | 84.9% |
| Joint Family | 1 | 2 | 0 | 3 | 1 | 1 | 6 | 8 |
| | 2.6% | 5.1% | .0% | 3.2% | 12.5% | 5.9% | 21.4% | 15.1% |
| Family size | | | | | | | | |
| Up to 4 | 17 | 16 | 5 | 38 | 5 | 5 | 11 | 21 |
| | 43.6% | 41.0% | 29.4% | 40.0% | 62.5% | 29.4% | 39.3% | 39.6% |
| 5 | 13 | 11 | 8 | 32 | 0 | 5 | 6 | 11 |
| | 33.3% | 28.2% | 47.1% | 33.7% | .0% | 29.4% | 21.4% | 20.8% |
| 6 and above | 9 | 12 | 4 | 25 | 3 | 7 | 11 | 21 |
| | 23.1% | 30.8% | 23.5% | 26.3% | 37.5% | 41.2% | 39.3% | 39.6% |
| No. of children | | | | | | | | |
| Up to 2 | 28 | 26 | 12 | 66 | 4 | 9 | 18 | 31 |
| | 71.8% | 66.7% | 70.6% | 69.5% | 50.0% | 52.9% | 64.3% | 58.5% |
| 3 and above | 11 | 13 | 5 | 29 | 4 | 8 | 10 | 22 |
| | 28.2% | 33.3% | 29.4% | 30.5% | 50.0% | 47.1% | 35.7% | 41.5% |
| Peer Network size | | | | | | | | |
| Up to 2 | 12 | 6 | 3 | 21 | 2 | 3 | 2 | 7 |

| | | | | | | | | |
|--------------------------------------|-------|-------|--------|-------|-------|-------|--------|-------|
| | 30.8% | 15.4% | 17.6% | 22.1% | 25.0% | 17.6% | 7.1% | 13.2% |
| 3 | 23 | 29 | 12 | 64 | 2 | 10 | 11 | 23 |
| | 59.0% | 74.4% | 70.6% | 67.4% | 25.0% | 58.8% | 39.3% | 43.4% |
| 4 and above | 4 | 4 | 2 | 10 | 4 | 4 | 15 | 23 |
| | 10.3% | 10.3% | 11.8% | 10.5% | 50.0% | 23.5% | 53.6% | 43.4% |
| Level of parental involvement | | | | | | | | |
| Low | 35 | 16 | 2 | 53 | 1 | 3 | 5 | 9 |
| | 89.7% | 41.0% | 11.8% | 55.8% | 12.5% | 17.6% | 17.9% | 17.0% |
| Medium | 4 | 15 | 10 | 29 | 4 | 10 | 9 | 23 |
| | 10.3% | 38.5% | 58.8% | 30.5% | 50.0% | 58.8% | 32.1% | 43.4% |
| High | 0 | 8 | 5 | 13 | 3 | 4 | 14 | 21 |
| | .0% | 20.5% | 29.4% | 13.7% | 37.5% | 23.5% | 50.0% | 39.6% |
| Aspiration | | | | | | | | |
| No | 20 | 12 | 0 | 32 | 3 | 2 | 0 | 5 |
| | 51.3% | 30.8% | .0% | 33.7% | 37.5% | 11.8% | .0% | 9.4% |
| Yes | 19 | 27 | 17 | 63 | 5 | 15 | 28 | 48 |
| | 48.7% | 69.2% | 100.0% | 66.3% | 62.5% | 88.2% | 100.0% | 90.6% |
| Good performer peer | | | | | | | | |
| None | 29 | 34 | 15 | 78 | 7 | 16 | 23 | 46 |
| | 74.4% | 87.2% | 88.2% | 82.1% | 87.5% | 94.1% | 82.1% | 86.8% |
| 1 and 2 | 9 | 3 | 2 | 14 | 1 | 1 | 4 | 6 |

| | | | | | | | | |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 23.1% | 7.7% | 11.8% | 14.7% | 12.5% | 5.9% | 14.3% | 11.3% |
| 3 and above | 1 | 2 | 0 | 3 | 0 | 0 | 1 | 1 |
| | 2.6% | 5.1% | .0% | 3.2% | .0% | .0% | 3.6% | 1.9% |
| Best friend peer | | | | | | | | |
| None | 17 | 20 | 10 | 47 | 2 | 9 | 15 | 26 |
| | 43.6% | 51.3% | 58.8% | 49.5% | 25.0% | 52.9% | 53.6% | 49.1% |
| 1 and 2 | 20 | 15 | 7 | 42 | 6 | 7 | 11 | 24 |
| | 51.3% | 38.5% | 41.2% | 44.2% | 75.0% | 41.2% | 39.3% | 45.3% |
| 3 and above | 2 | 4 | 0 | 6 | 0 | 1 | 2 | 3 |
| | 5.1% | 10.3% | .0% | 6.3% | .0% | 5.9% | 7.1% | 5.7% |
| Same Caste peer | | | | | | | | |
| None | 3 | 2 | 1 | 6 | 2 | 1 | 1 | 4 |
| | 7.7% | 5.1% | 5.9% | 6.3% | 25.0% | 5.9% | 3.6% | 7.5% |
| 1 and 2 | 20 | 9 | 5 | 34 | 3 | 3 | 8 | 14 |
| | 51.3% | 23.1% | 29.4% | 35.8% | 37.5% | 17.6% | 28.6% | 26.4% |
| 3 and above | 16 | 28 | 11 | 55 | 3 | 13 | 19 | 35 |
| | 41.0% | 71.8% | 64.7% | 57.9% | 37.5% | 76.5% | 67.9% | 66.0% |
| Total | 39 | 39 | 17 | 95 | 8 | 17 | 28 | 53 |

In lower income groups more students with high academic achievement have medium level of parental involvement while the reverse is true for higher income groups. In lower income group low academic achievers also have an overwhelming proportion of less involved parents whereas in higher economic groups even lowperforming students have their parent's involved at a medium or higher level. Irrespective of the economic group, aspiration's of students play a significant role in academic achievement. A common observation noticed among both groups is that

a greater proportion of high performers have fewer good performers in the friendship group and best friends in the peer network but more good performers have a high composition of same caste peers. These are due to the general availability and environmental condition prevailing in the social setting.

Further correlation was computed using the total scores of academic achievement and the correlation values shows that aspiration of students is the significant variable across both income groups. Age of the students, gender, social category, father's education and level of parental involvement are other significantly associated variables for the respondents of lower income group (see Table 3). The regression results with total scores of academic achievement shows that social category, mother's educational position, level of parental involvement and aspiration are significant for academic achievement among lower income groups. Among higher income groups, aspiration has an influential role in academic achievement (see Table 4).

Table 3. Correlates of Academic Achievement and Background factors by Family Income of respondents

| Background factors | Up to Rs. 30000 | | Rs. 30001 and above | |
|---------------------|----------------------|------|----------------------|------|
| | Academic Achievement | | Academic Achievement | |
| | r value | Sig | r value | Sig |
| Age | -.226* | .028 | -.066 | .639 |
| Gender | -.261* | .011 | -.154 | .271 |
| Caste | -.508** | .000 | -.152 | .277 |
| Education | -.122 | .237 | -.077 | .586 |
| Parent's age | -.069 | .504 | -.082 | .557 |
| Father's education | .223* | .030 | -.091 | .519 |
| Mother's education | -.030 | .770 | .195 | .162 |
| Father's occupation | .125 | .227 | .257 | .063 |
| Family size | .071 | .491 | .058 | .681 |

| | | | | |
|-------------------------------|--------|------|--------|------|
| No. of children | .022 | .830 | -.120 | .391 |
| Peer network size | .114 | .269 | .185 | .184 |
| Level of Parental Involvement | .574** | .000 | .089 | .528 |
| Aspiration | .383** | .000 | .431** | .001 |
| Good performer peer | -.131 | .205 | .125 | .372 |
| Best friend peer | -.106 | .306 | -.100 | .477 |
| Same caste peer | .196 | .057 | .218 | .118 |
| N | 95 | | 53 | |

** Significant at 0.05 level

* Significant at 0.10 level

Table 4. Regression results of Academic Achievement and Background factors by Family Income of respondents

| Background factors | Up to Rs. 30000 | | | Rs. 30001 and above | | |
|--------------------|----------------------|------|----------|----------------------|------|----------|
| | Academic Achievement | | | Academic Achievement | | |
| | Beta value | Sig | R square | Beta value | Sig | R square |
| Age | -.079 | .488 | | -.245 | .263 | |
| Gender | -.109 | .190 | | -.097 | .554 | |
| Caste | -.315** | .005 | | -.072 | .694 | |
| Education | -.067 | .542 | | .140 | .518 | |
| Parent's age | -.107 | .163 | | -.006 | .970 | |
| Father's education | -.003 | .972 | | -.219 | .211 | |

| | | | | | | |
|-------------------------------|---------|------|-----------------|-------|------|-----------------|
| Mother's education | -.158* | .058 | .478 (47.8%) | .164 | .311 | .175 (17.5%) |
| Father's occupation | .064 | .445 | | .175 | .235 | |
| Family size | -.087 | .316 | | .128 | .492 | |
| No. of children | .035 | .683 | | -.255 | .149 | |
| Peer network size | .067 | .443 | | .178 | .226 | |
| Level of Parental Involvement | .408*** | .000 | | -.024 | .902 | |
| Aspiration | .165* | .054 | | .394* | .025 | |
| Good performer peer | -.078 | .339 | | .069 | .628 | |
| Best friend peer | .047 | .579 | | .009 | .953 | |
| Same caste peer | .143 | .078 | | .247 | .080 | |
| N | 95 | | | 53 | | |

*** Significant at 0.01 level

** Significant at 0.05 level

* Significant at 0.10 level

The regression results show that irrespective of the level of income, aspirations of the children positively contribute for better academic achievement of the children. Clear aspirations and working towards the goals are important and similar caste peer network provides them the space to share similar views and aspirations.

Among lower income group, the caste of the respondents, mother's education and level of parental involvement are significant variables. Even among lower income groups, children in non-dalit families are performing better. The caste compulsions, ample availability of frame of references in non-dalit castes and high value attributed for education are operative in lower income groups as well. Among lower income groups, mother's education also becomes an important resource and facilitating factor for better academic achievement of children. Parental gain in education, especially mother's is a supportive aspect for reinforcement for children. In the lower income groups parental involvement is highly valuable and found to have a highly significant impact. Despite the low availability of other resources, parental involvement has a significant role for children's better academic achievement and sustainability.

Education expands the knowledge and necessary factors to escape poverty and social oppression and social inequality (Allen and Hood, 2000). The observation that dalit households are considerably poorer is largely due to the fact that they are less likely to own land (Platteau, 1992 and Deshpande, 2000), and their relative lack of education prevents them from obtaining the rate of return that non-dalit secure (Foster and Rosenzweig, 1996). Many of the inter-community inequalities that vitiate Indian society could be ameliorated by greater equality in the distribution of educational outcomes between communities.

II. Conclusion

Irrespective of the annual family income the aspirations of students provide better chances for academic achievement. Among lower income groups, non-dalit students, children whose mothers are relatively better educated and those receiving high parental involvement perform better. Lower income groups have several options where intervention is possible for better academic achievement. The Annual income of the family also has a significant impact on the children's academic achievement. With families earning better income, the children are able to academically perform better. With higher income, parents spend more on the children's future, such as books, spend time with them, motivate, provide a suitable study environment at home and parents have better financial, educational and social capital resources which are closely linked to children's academic performance. Lower income families have to prioritise their allocation to the immediate needs such as daily food, kinship obligatory expenditure, medical expenses etc.

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