A study on Social Maturity, School Adjustment and Academic achievement among residential school girls

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Abstract
The present study is aimed at studying the relationship between Social Maturity, School Adjustment and levels of Academic achievement among residential school girl students. The study was conducted on a sample of 347 girls from class ix –xii at an all girls residential school of North India. Dr. Nalini Rao’s Social Maturity Scale (RSMS) was used to measure social maturity, Sinha & Singh’s Adjustment Inventory for School Students (AISS) was used to measure school adjustment and aggregate score of the students in the year end final examination was taken to assess level of their academic achievement. The results indicated a significant relationship between social maturity and school adjustment. Also, significant difference existed between the school adjustments of the three groups i.e. low, high and average levels of academic achievement.

Key words: Residential school, Social maturity, School Adjustment, Academic achievement.

1 Introduction
Academic scores have become the destiny charters for Indian students. Almost every adolescent student bears the heavy baggage of the expectations of parents and teachers. Thus, exploring the predictors of academic success has always been on the agenda of both educational and child psychologists’ .Social psychologists and sociologists consider achievement in school as a consequence of the interplay of multifarious social factors (Bernstein, 1975, Vendal, 1981). Admittedly, academic or scholastic achievement is a complex phenomenon and requires different approaches to un derstanding and interpretation. It is the function of many cognitive and non-cognitive aspects of personality (Vendal, 1994). One non-cognitive factor that may affect the academic achievement of students is Social Maturity.

Social Maturity is a term commonly used in two ways like, with respect to the behaviour that is appropriate to the age of the individual under observation and secondly the behaviour that conforms to the standard and expectations of the adults. Thus Social Maturity permits more detailed perception of the social environment which helps adolescents to influence the social circumstances and develop stable patterns of social behaviour. Raj.M defines social maturity as the level of social skills and awareness that an individual has achieved relative to particular norms related to an age group. It is a measure of the development competence of an individual with regard to interpersonal relations, behaviour appropriateness, social problem solving and judgement.

Social responsibility, also a sub-trait of social maturity, defined as "adherence to social rules and role expectations", by Wentzel (1991b) is instrumental in the acquisition of academic knowledge and skills. Social responsibility makes two contributions to learning:
(1) Behaving responsibly can aid learning by promoting positive interactions with teacher and peers, e.g. peer sharing of materials or exchanging help with assignments;
(2) Students' goals to be compliant and responsible can constrain and enhance the learning process, e.g. pupils' striving to complete assignments on time to comply with requirements. (Wentzel (1991b). The association between academic and social performance has been demonstrated in a number of empirical studies in North America and West Europe (e.g., Green, Forehand, Beck, & Vosk, 1980; Havighurst, Bowman, Liddle, Mathews, & Pierce, 1962; Wentzel & Asher, 1995). In general, it has been found that children who display sociable and prosocial behavior are likely to achieve highly in academic areas (e.g., Green et al., 1980; Masten et al., 1995; Wentzel & Asher, 1995). In contrast, children who are disruptive and aggressive, fare poorly on academic achievement (e.g., Dishion, 1990; Masten et al., 1995). It has been found that social withdrawal and inhibition are also associated with academic difficulties among North American children (e.g., Green et al., 1980; Wentzel, 1991); socially inhibited and shy children tend to perform more poorly in school than their less inhibited counterparts. (Wentzel & Asher, 1995). Social performance, sociable and prosocial behaviour, social inhibition and withdrawal are some of the traits associated with the psychosocial maturity of an individual. They are either the components or the resultants of social maturity. How an individual performs in an environment also depends largely on how he or she has adapted or adjusted to it. Adjustment is a built – in mechanism for coping with the problematic or other realities of life. Adjustment has been considered as an index to integration; a harmonious behaviour of the individual by which other individuals of society recognise that the person is well adjusted (Pathak, 1990).
Optimal adjustment to the learning environment seems to be a precursor to maximising achievement of students. School psychologists often come across numerous cases in which a child performing brilliantly at one school is unable to actualise his potential at a different school or class.

Adjustment is a major concern in all developmental stages, but is of great relevance during adolescent. Adapting to the changes within themselves and to the changed expectations of the society is a major developmental task of the adolescent stage. Their happiness, aspirations, motivation levels, emotional wellbeing and subsequent achievements are linked to their adjustments with the ever changing internal and external environment. Garrison and Force (1959), Hallahan and Kauffman (1978) and Chauhan (1979) have proposed three basic factors which facilitate emotional disturbance among adolescents. These factors are biological disorders and diseases, pathological family relationships and undesirable experience in school. Also, a positive relationship between social adjustment and school attainment has long been known (Dishion, 1990; Feschbach & Feschbach, 1987; Green, Forehand, Beck & Vosk, 1980). Good adjustments make the adolescents proud and self-satisfied, motivate them for future success, encourage them to be an independent thinking person and build their confidence and in turn improve the mental health. The environment created in the school as well as home either accelerates or retards the development of any pupil (Krishnan, 1977). School plays a vital role in the development of an adolescent as they spend most part of their day attending school, engaging in extra curricular activities; and even at home engaged in scholastic work. School is an institution which contributes to the total educational and socialization process directed to the development of personality of an adolescent (Greenbaum, 1974). School environment includes relationships among and between administration, teachers, parents, students and the community that influences over all development through the academic demands of formal curricula and through exposure to teachers who emphasize academic achievement, motivation to learn and self-improvement (Newman and Newman, 1986) There is increasing realisation among scholars that there are many aspects of interpersonal relationships that have the potential to influence academic motivation and scholastic attainment too. (Juvonen & Wentzel, 1996) These relationships can either facilitate or hamper the developmental trajectory of the student.

School has two types of responsibilities, to remove those situations/factors/functions which produce maladjustment in students and to detect undesirable behaviour of students and to correct them. But very little scientific research has been done on how and how many schools in India realise these responsibilities. There has been a surge in the number of private residential schools in the country. There were a handful of reputed boarding schools in the hills of India that were established either by the British or during the British Raj. These institutions are mostly run by international missionary charitable trusts, with generous funding from the alumnus and they rigorously protect and uphold the
philosophy and reputation of their institutes. Almost none of them have any branches.

In the past two decades though, many corporate houses have turned the business of educating into education business. With the population boom exploding with a bang in our faces and everybody with any resources wanting only the “best” for their kids, the demand for good schools is being fulfilled by constructing huge concrete structures all over the country side. With a substantial number of these new schools being residential, it’s important to study the mental well being issues of students studying in these schools of India. But very little research has been conducted into the psychological effects of the boarding school experience and so there is little evidence with which to substantiate observations from clinical practice. An exception is Lambert who conducted sociological research in the 1960’s. Alongside this he published the views of children themselves that were obtained by sending researchers to live in boarding schools for at least a week and sometimes for several weeks. These researchers elicited written diaries from the children, which give a moving and sometimes shocking account of day to day living in boarding schools of that time, (Lambert 1968). This is the very double bind in which the boarding school child is trapped. Boarding school is deemed a privilege. The child knows it is expensive for his parents and that he is expected to be appreciative. The child is inculcated with the parents’ preferred view—that the school is good. However, as Duffell (2005) points out, if the child is unhappy this ultimately leads to the sad conclusion that, ‘if school is good and I do not like it, therefore I must be bad’. Thus the child has to do violence to his own perception and he learns to view the situation, not as he experiences it, but as he is told it is. This leads to unease and a vague sense that something unspecific is wrong and this may continue into adult life. The psychological impact of boarding school on the developing child affects the core of the personality. As a result of the sudden loss of early attachment figures the vulnerable self needs protection. Therefore either a form of acquired and defensive encapsulation may occur or peer influence becomes a supreme guiding force in the lives of socially immature children.

2 Objectives of the study
1. To study the intercorrelations between social maturity, adjustment to school and academic achievement among residential school students.
2. To study significance of difference of means on the variable of social maturity among students with different levels of academic achievement.
3. To study significance of difference of means on the variable of school adjustment among students with different levels of academic achievement.

3 Hypotheses
1. There will be significant relationship between social maturity and school adjustment of residential school students.
2. There will be significant difference in the social maturity of students having different levels of academic achievement at a residential school.
3. There will be significant difference in school adjustment of students having different levels of academic achievement at a residential school.

4 Method

4.1 Sample: The study was conducted on 347 girls studying in class ix-xii of a private residential school for girls in North India. Systematic sampling was undertaken for the above.
4.2 Tools:

1. Social Maturity Scale (Rao, 1986) This is a 90 item scale which can be group administered. It measures social maturity in adolescents with three sub scales, further detailed into three more subscales each. The three sub scales are Personal adequacy, interpersonal adequacy and social adequacy. Responses are taken on a rating scale of 'strongly agree' to 'strongly disagree'. The reliability of the sub scales ranges from 0.91 to 0.63. Criterion validity is high against teacher ratings on social maturity of the students. Scoring is done with the help of a stencilled scoring key. Appropriate normative data is provided and along with scores on the nine sub scales, a total social maturity score is also obtained.

2. Adjustment Inventory for School Students - AISS (Sinha & Singh, 1993) This 60 item inventory segregates well adjusted secondary school students from poorly adjusted students in three areas of adjustment: Emotional, Social and Educational. Responses are taken in 'yes' and 'no' for each item. The split- half reliability is .95. Both Item-analysis and Criterion related validity is high with product moment correlation between inventory scores and criterions ratings was 0.51. Percentile norms are provided for male and female students separately. Scoring is done manually.

3. Aggregate score of the students in the year end final examination was taken to assess level of academic achievement.

4.3 Administration:
The scales were administered to the subjects in groups in the regular classroom situation. The instructions were provided on the first page of the scale booklets which are self explanatory. The answers of the subjects were recorded on the scale protocol. Scoring was done according to the instructions given in the manuals.

4.4 Statistical analysis: In order to analyse the data, the sample was classified into three groups based on their aggregate percentage on the academic year end exams. The groups were as follows:

GROUP I - LOW ACHIEVERS with aggregate percentage of 60% and below.

GROUP II - AVERAGE ACHIEVERS with aggregate percentage between 60% and 75%.

GROUP III- HIGH ACHIEVERS with aggregate percentage of 75% and above.

Pearson product moment correlation was calculated between the Social maturity scores and School adjustment scores of the three groups. Independent samples t-test was undertaken to study the difference in means of social maturity and school adjustment scores across the three levels of academic achievement.

5 Results and Discussion
The result reveals that the value of product moment coefficient of correlation found between social maturity scores and school adjustment scores for the Low achievers group was \( r = -0.562, N=83 \) which is significant at the 0.01 level of significance, thus confirming a positive correlation between social maturity and school adjustment scores of low achievers. The correlation is positive as the scores on the two tests are interpreted in opposite manners. For Social Maturity, higher the scores, better is the maturity and for School Adjustment higher the score, poorer is the adjustment. For the Average achievers group was \( r = -0.551, N=187 \) which is significant at the 0.01 level of significance, thus confirming a positive correlation between social maturity and school adjustment scores of average achievers at the residential school. The correlation is positive as the scores on the two tests are interpreted in opposite manners. For Social Maturity, higher the scores, better is the maturity and for School Adjustment higher the score, poorer is the adjustment. For the High Achievers group the correlation was \( r = -0.55, N=77 \) which is significant at the 0.01 level of significance, thus confirming a positive correlation between social maturity and school adjustment scores of high achievers as well. The correlation is positive as the scores on the two tests are interpreted in opposite manners. For Social Maturity, higher the scores, better is the maturity and for School
Adjustment higher the score, poorer is the adjustment. These results prove the first hypothesis correct that there is significant relationship between social maturity and school adjustment of residential school students in this sample.

The findings of this study are indicative of a relationship between the social maturity of a student and how well she adjusts to school. It can be deduced on further contemplation that a student who is clearly aware of his/her priorities at a certain age and balances the lure of peer company with continuous efforts to fulfill parental and societal expectations, is the one who adjusts best to a residential school environment. Similar results were obtained by other researchers as well. Compared with children who are accepted by peers and have friends, children who have difficulty getting along with peers are more likely to have more negative attitudes toward school (Kochenderfer & Ladd, 1996), to have poorer student-teacher relationships (Birch & Ladd, 1998), to be absent from school more frequently (DeRosier, Kupersmidt, & Patterson, 1994), to have lower academic achievement (Buhs, Ladd, & Herald, 2006; Schwartz, Gorman, Nakamoto, & Toplin, 2005), and to be retained in grade (Coie, Lochman, Terry, & Hyman, 1992; Ollendick, Weist, Borden, & Green, 1992). This association between difficulties in peer relationships and poor school adjustment is seen in youth ranging from kindergarten age through high school age (Coie et al., 1992; Ladd, 1990; Ladd, Kochenderfer, & Coleman, 1997; Vandell & Hembree, 1994; Wentzel & Caldwell, 1997). Furthermore, emerging cross-cultural research indicates that it is seen in Eastern as well as Western cultures (Chen, Kenneth, & Li, 1997; Chen, Zappulla, Coco, Schneider, Kaspar, De Oliveira et al., 2004; Schwartz, Farver, Chang, & Lee-Shim, 2002).

The Independent- samples t-test results for Social Maturity are given in Table-4. With a t value of 1.14 at df of 268, there was no significant difference between the means of social maturity scores of the low achievers and average achievers at the residential school. The t-value for difference between the means of social maturity scores of the average achievers and high achievers at the residential school was 3.377 at df of 262. This is significant at the 0.01 level. The t-value for difference between the means of social maturity scores of the high achievers and low achievers at the residential school was 4.91 at df of 158. This is also significant at the 0.01 level. These results lead us to the acceptance of the second hypothesis which is that there will be significant difference in the social maturity of students having different levels of academic achievement at a residential school.

The above statistical analysis lends towards an assumption that at a residential school, the higher social maturity of students might be a precursor to better academic achievement. There is significant difference between the social maturity of average achievers and high achievers and also between that of low and high achievers. As suggested by some researchers, social maturity is a non-cognitive factor associated with academic performance. A study conducted by Singh & Thukral (2010), on Social Maturity and Academic Achievement of High School Students reported a significant relationship between social maturity and academic achievement of high school students in that sample.

Thus it can be deduced that perhaps one of the elusive factors contributing to academic success, and also differentiating between survivors and achievers is social maturity of an adolescent. Low levels of social maturity even after attaining puberty might result in poor academic orientation. Moffitt (1993) explains that the social maturity of youth in today’s society is reached at a later age than in previous eras, even though youth have reached full biological maturity. While adolescents may have reached full physical development, today’s society delays the positive aspects of adulthood, such as seeking employment, sexual experiences, establishing independence, and so on. Thus, these adolescents are caught in the maturity gap, where their biological maturity does not correlate to their social maturity.

Also, social maturity allows an individual to assess her social requirements and responsibilities correctly. A related study (Wentzel, 1989) suggests that the pursuit of goals compatible with the social requirements of the classroom is related to academic achievement in adolescence. In this study the pursuit of highly distinct sets of goals differentiated high, medium and low achieving students as measured by classroom grades. High achieving students reported trying to achieve several goals, including being dependable and responsible, learning and understanding things. In contrast the goals frequently pursued by the average or low achievers were to make friends and have fun. Thus, the simultaneous pursuit of social responsibility and learning goals appear to enhance performance in academic settings. Presumably this is because both types of goals are compatible with the
The Independent- samples t-test results for School Adjustment are given in Table-5. The t- value for difference between the means of school adjustment scores of the high achievers and low achievers at the residential school was 4.171 at df of 158. This is significant at the 0.01 level. The t- value for difference between the means of school adjustment scores of the average achievers and high achievers at the residential school was 2.41 at df of 262. This is not significant at either the 0.01 level or the .05 level. The t- value for difference between the means of school adjustment scores of the average achievers and low achievers at the residential school was 2.51 at df of 268. This is not significant at either the 0.01 level or the .05 level.

These results validate the third hypothesis partially as there is significant difference in school adjustment only between high achievers and low achievers. These results are conclusive only about the different school adjustment levels of low and high achievers. Research on academic achievement and school adjustment is not conclusive. Niebrzydowski and Porcy (1991) looked at school adjustment of high ability students at the end of an eight year period. The students started school one year earlier because they had demonstrated outstanding abilities while in nursery school. Majority of the students tested displayed high or very high achievement and appropriate interpersonal relations with peers. However one quarter displayed low achievement and low social acceptance, although they were of high ability. Nevertheless, children who are poorly invested in school are also commonly found to struggle behaviourally and academically (Blum, McNeely, & Rinehart, 2002; Ozer, 2005). When a student fails to meet the academic requirements in school, negative outcomes during school and post-school years can result. (Maha Al-Hendawi, 2010). Success leads to favourable self concepts which in turn, lead to good personal adjustments and favourable social evaluations. These contribute heavily to good future adjustments (BharatiDevi, 1982).

Conclusion

In conclusion, this study has emphasised on social maturity contributing both to school adjustment and academic achievement of residential school students and perhaps school performance and school adjustment share a bidirectional relationship.

References


Chauhan, S. S., 1979, Advanced educational psychology. Vikas, New Delhi


Duffell, N. (2005) Surviving the Privilege of Boarding School - Draft article for Mental Health Assn, Qld, Australia? Nick Duffell 2005


Table 1

CORRELATION BETWEEN SOCIAL MATURITY AND SCHOOL ADJUSTMENT FOR LOW ACHIEVERS

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<td>TSMS</td>
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** Correlation is significant at the 0.01 level (1-tailed).

Table 2
### CORRELATION BETWEEN SOCIAL MATURITY AND SCHOOL ADJUSTMENT FOR AVERAGE ACHIEVERS

#### Correlations

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**. Correlation is significant at the 0.01 level (1-tailed).

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### CORRELATION BETWEEN SOCIAL MATURITY AND SCHOOL ADJUSTMENT FOR HIGH ACHIEVERS

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**. Correlation is significant at the 0.01 level (1-tailed).
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### Table 5
COMPARISON OF MEANS ON SCHOOL ADJUSTMENT SCORES

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