CHAPTER-VI

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We are in the 21st century, and intelligence and success are not viewed the same way as they were before. New theories of intelligence have been introduced and gradually replacing the traditional theories.

The whole student community has become the centre of concern, not only their reasoning capacities, but also their creativity, emotions, and interpersonal skills. Achieving high standards is considered a power symbol and way of life. Everyone desires to attain high standards of excellence. Usually this achievement process begins with academic attainment of a child at school. This proficiency with which an individual performs in any skill or area of knowledge is called "achievement". In education, the most essential measure of attainment is academic achievement. Academic achievement constitutes a socially desirable, equally relevant, and integral aspect of every student's life, where in they are expected to excel in academics (Sharma, 2008).

Academic achievement is the result of the training in the school situation. In Indian settings, the tests are generally essay type and academic achievement is assessed by marks secured in the annual examination in aggregate and various subjects in the school i.e. English, Hindi, Mathematics, General Science and Social Studies. Total academic achievement score is the outcome of achievement of simple as well as complex nature. Consequently, total achievement involves a multiplicity of skills and habits (Bala, 2001).

In order to assist learners in achieving their academic and eventual career goals it becomes necessary to determine the factors that facilitate scholastic achievement through psychological measurement (Cohen & Swerdlik, 2002).

Academic achievement is a multi-dimensional construct in which there are several intervening variables, which have been studied for the last 60 years under several approaches. It is found that intelligence, creativity, study habits and achievement motivation contributes around 40% to 50% of the variance in academic achievement. The rest of the 50% of variance could be explained through some psychological factors deeply rooted in the psyche of the individual. Though the intelligence, study habit and adjustment have been investigated number of times (Henning, 2007; Mahmoudi, Armin, & Ningamma, 2009; Tatlah, Mehmood, Aslam, Ali, & Iqbal, 2012) but the attitudinal factors are hard to be measured. These are understood by or are expressed through social-psychological factors which make up the attitude of an individual like e.g. family environment, self-efficacy, self-esteem, interest, emotional intelligence. The present study is an attempt to investigate these.

Thus, keeping in view, the importance of scholastic attainment in the life of an individual, the present study attempts to explore the role of various factors of family environment, self-efficacy, self-esteem and emotional intelligence among government and private school students related to academic achievement. These variables have important bearing on academic achievement because they form the attitude of a student. Academic achievement is the outcome of complex interaction between individual aptitude, skills, motivational disposition, and environmental influence (Arbona, 2000).

To accomplish the main objectives of the present study, Family Environment Scale (FES) (Moos & Moos, 1994) has been used to measure the role of family environment in academic achievement. Self-efficacy has been judged through General Self-Efficacy Scale (Hindi version) (Sud, 2002), self-esteem has been measured through Self-Esteem Inventory (SEI) (Coopersmith, 1987), emotional intelligence has been tapped through Multidimensional

Measure of Emotional Intelligence (Darolia, 2003), and academic record of the student was taken from their respective schools that is, the annual result of the previous class has taken as the academic achievement scores. All the students were drawn from class eight to tenth and their Intelligence Quotient has been measured though Standard Progressive Matrices (SPM) (Ravens, Court, & Raven, 1977). Since intelligence is the most important determinant of academic achievement, hence it was controlled. The subjects lying between 75th to 85th percentiles on SPM were taken for the study.

A total of 800 students were approached for preliminary selection and to achieve the objective, 400 students, 100 for each categories viz government school and private school in both the genders were selected. While initiating the study, certain aims and hypotheses were kept in view such as:

1.   Factors of family environment will be significantly related with scholastic achievement among high school students.

2.   There would be a significant positive correlation between self-efficacy and scholastic attainment of high school students.

3.   There would be a significant positive correlation between self-esteem and scholastic attainment of high school students.

4.   Emotional intelligence would emerge as a positive and significant predictor of scholastic attainment among high school students in all the sub samples (with cognitive ability controlled).

In the first phase, inter-correlations were computed to observe the degree of relationship of academic achievement with ten factors of family environment, self-efficacy, self-esteem and five factors of emotional intelligence. Further, in order to find out the variance explained by each factor of family environment,

self-efficacy, self-esteem and emotional intelligence in academic achievement, step-wise regression analysis, was computed (SPSS, 2011).

In the second part of the analysis, Analysis of variance (ANOVA) of the order of 2x2 was calculated in order to study and see the differences between government school and private school and between genders for all the variables under study.

The results of the present investigation are manifold and varied. Few of the findings support the hypotheses framed earlier. The discussion of the obtained results would follow the same pattern in which the present problem was formulated, in the form of hypotheses, and each layer and aspect would be uncovered one by one.

The main purpose of the present study was to observe the relationship of academic achievement, family environment, self-efficacy, self-esteem and emotional intelligence and also to find out the exact variance explained by these variables in predicting academic achievement. The ensuing discussion would try to resolve and settle the query whether there is any relationship between academic achievement and undertaken variables and how much variance they explain in predicting scholastic attainment of government schools students and private school students in the two genders.

6.1 Family Environment and Academic Achievement

First of all, the three dimensions of family environment i.e. relationship dimension, personal growth dimension and system maintenance dimension will be discussed in the light of correlational analysis and regression analysis for all the samples, i.e. government school males, government school females, private school males and private school females. The dimensions of family environment

will be taken for discussion in accordance with the variance explained by each dimension. These are as follows:

6.1.1 Relationship Dimension

In the present study, relationship dimension has come up as the most important dimension of family environment that has contributed to the maximum variance in academic achievement.

Regression analysis of government school males reveals that relationship dimension has the highest contribution in academic achievement. It explains 7% of variance in academic achievement ($r=.26$, $p<.01$, R^2 change= .07, $F<. 01$) which reflect that strong feeling of togetherness, encouragement to express their feelings and less conflict in the family leads to high academic achievement (see Table 5.1).

In the other samples of the study i.e. government school females, private school males and private schools females, neither relationship dimension nor other dimensions of family environment (personal growth dimension and system maintenance dimension) play as much a significant role as in the government school males' samples, hence the results are not significant. The rationale could be offered in terms of the fact that tightly knit family help and support each other in every situation that may strengthen the environment of the family, free from stress and make the atmosphere of the family light, healthy and happy. The results suggest that if family members are encouraged to express their feelings directly and there is a degree of commitment, help and support for one another then, it helps in attaining high /good grades.

The above findings are supported by the findings of Strage and Bradit in 1999. This study examined connections between college students' adjustment and success and characteristic of their relationship with their parents suggest

that parenting style contributes to play an important role in the academic lives of the students.

Based on the previous studies, the repeated evidence has confirmed that most accurate predictor of student achievement is the extent to which the family is involved in the child's education and when children are surrounded by caring, capable parents and are able to enjoy maturity and moderate competitive kinship, a foundation of literacy is build with no difficulty (Campbell, 1995; Henderson & Berla, 1994; Tella & Tella, 2003; Zang & Carrasquillo, 1995).

Studies have revealed that good home environment groups achieved greater success than middle and low home environment group (Jagannathan, 1986). A highly significant positive relationship between the variables of academic achievement and family scores has been observed (Daulta, 2008; Shaha & Sharma, 1984).

Thus, the hypothesis that factors of family environment will be significantly related with scholastic achievement among high school student is accepted.

6.2 Self-Efficacy and Academic Achievement

Regression analysis of government school females' sample reveals that self-efficacy contributes significantly in academic achievement. It explains 6% of variance (R^2 change=.06, p< .05) (see Table-5.6). Correlation analysis also reveals that self-efficacy has significant and positive correlation with academic achievement (r=.25, p<. 05) (see Table 5.2). But in rest of the samples, the contribution and correlation of self-efficacy is found to be insignificant.

The results of the present study reveal that self-efficacy is significantly and positively correlated with academic achievement in government school females' sample. The reason being that self-efficacy represents the personal perception of external social factors (Bandura, 2001). It is believed that our

personalized ideas and self-efficacy affects our social interactions in almost every way.

The researchers found that confident individuals typically take control over their own learning experience and were more likely to participate in class and preferred first hand learning experiences. Those individuals reporting low self-efficacy typically slide away from academic interactions and isolate themselves in their studies (Jimenez Sofa, 2006). Studies have confirmed strong relationship between self-efficacy and academic achievement (Pajares, 1996; Pajares & Kransler, 1995).

Thus, on the basis of the results of the present study, the hypothesis that there would be significant positive correlation between self-efficacy and scholastic attainment of high school student is partially accepted because the results are significant only in one sample.

6.3 Self-Esteem and Academic Achievement.

In the present study, self- esteem has come up as the important variable that contributes to the variance in academic achievement.

Regression analysis of government school males reveal that self- esteem explains 4% of variance in academic achievement ($r=.18$; $p<.05$; R^2 change= $.04$, $F<.05$) (see Table 5.5) which shows that one's overall sense of self-competence and self- worth influences academic performance.

In the other samples of the study i.e. government school females, private school males and private school females' self-esteem does not play a significant role, as in the above sample, hence the results are not significant. The rationale could be offered in terms of the fact that people who feel worthy, able and competent are more likely to achieve their goals than those who feel worthless, incapable and incompetent.

The above findings are supported by Haarer, 1964; Jones and Grieneekz, 1970; Lamy, 1965 and Lawrence, 1981. All these studies show a positive correlation between self- esteem and academic achievement.

Several recent studies have attempted to investigate the direct relationship between self-esteem and academic achievement. According to the studies of Phullmann and Allik (2008) low general self-esteem does not necessarily signal a poor academic achievement. Their results show that low (not high) general self-esteem is a significant predictor of superior school performance. However, research findings from (Marsh & O'Mara, 2008) suggested that prior self-esteem has positive effect on subsequent educational attainment.

On the other hand, Zeinvand (2006) studied the relation between self-esteem, social support and students' educational progression in high schools in Darehshar, a city in Iran. The data analysis showed no significant relationship between self-esteem and academic achievement. However the research depicted the significant differences in males and females. The t-test revealed that self-esteem is more in males then in females. In our study also, in the males sample, this holds good.

Mohammad Aryana in 2010 highlights the relationship between self-esteem and academic achievement. The results demonstrate that there was significant positive relationship between self-esteem and academic achievement. Moreover, there was significant difference in academic achievement between males and females.

Thus, the hypothesis that self-esteem will be significantly related with scholastic achievement among high school students is partially accepted.

6.4 Emotional Intelligence and Academic Achievement

Concerning academic achievements of females, the results of correlational analysis reveals that self-awareness is significantly and positively related to academic achievement (r= .22, p<.05) (see Table 5.4).The results of stepwise regression analysis show that self-awareness contributes 6% of variance in academic achievement of private school females(see Table 5.7)

The results further reveal that there is no significant predictor to the variance of academic achievement and in correlation analysis again there is no significant relationship between the factors of emotional intelligence and academic achievement of government schools males, females and private schools males.

The above findings are supported by the findings of Elias, Gara, Sehuyler, Bradon-Muller and Sayette (1991). The study predicts that teaching and social skills are very important at school; it can affect academic achievement positively. According to Ediger (1997) the emotions, feelings and values are vital for person's well being and achievement in life. Emotional maturity, one learns at home also.

Several studies show that academic success was associated with higher level of total emotional intelligence. Results of these studies revealed that academically successful students had significantly higher level of several different emotional and social competencies (Downey et al., 2008; Parker et. al., 2006).

In the present study, only private school females have shown significant correlation of academic achievement with emotional intelligence. Self-awareness contributes 6% of variance in academic achievement of private school females.

It has been observed that in our society, there are different child rearing practices. Parenting style for both males and females differ, from males there are high expectations of parents, friends and even society so they are motivated to study hard and have more emotional and social competencies which are reflected in their achievement.

But due to greater competition in male dominated world, females are coming at par with males in every sphere of life and are picking up self winning strategies and are becoming economically strong to make both ends meet. That is why; self- awareness in females of private school is positively and significantly related to scholastic achievement partially because of encouragement from parents.

Thus, the hypothesis that emotional intelligence would emerge as a positive and significant predictor of scholastic attainment among high school students is partially accepted.

6.5 Analysis of Variance

In the second phase, ANOVA was computed to find out the significance of difference between two types of schools i.e. government and private school and between gender on the variables of family environment, self-efficacy, self-esteem and variables of emotional intelligence. The major aim was to observe the interaction between schools and gender on the above mentioned variables. The manifest of analysis of variance is that it analyzes within and between variances simultaneously and takes into account all kinds of basic errors (Thapa, 2008).

6.5.1 Factors of Family Environment

Cohesion

The two way analysis of variance shows that the main effect of school and gender are not significant for cohesion.

The ANOVA table for cohesion (see Table 5.9) indicates that interaction effect of school x gender on the factor of cohesion is significant. The F-ratio is found to be 14.89, p<.01. At government school end, females are significantly higher on cohesion than males (6.65v/s6.04) (see Table 5.10 and Figure 5.1). But vice-versa at the private school end i.e. private school males are higher on cohesion than private school females (6.36 v/s 5.79) (see Table 5.10 and Figure 5.1). This cross over effect is very interesting. This may be due to the reason that females of government school are more traditional and their most of the activities centre around their families only, whereas, private school males are more cohesive than private schools females because males are brought up with more appropriate guidance and encouragements from their parents. The style of family in movement may induce academic achievement at least for males (Bonesrønning, 2010; Guryan, Hurst and Kearney, 2008). The main effects of school and gender are not significant that is how predictors of achievement differ from sample to sample. In academic achievement it has shown its worthiness in the section of regression analysis.

Expressiveness

The ANOVA table for expressiveness (see Table 5.12) indicates that there is a significant school difference with F-ratio being 20.33, p< .01. The mean score of government school is higher than private school (9.75v/s8.55) (see general means Table 5.11 for expressiveness). ANOVA table also indicates that there is a significant gender difference with F- ratio being 6.15, p< .05. The mean score of males sample is significantly higher than females' sample (8.82v/s 8.66) (see Table 5.11).

Further, the interaction effect of school x gender on the variable of expressiveness is significant. The F-ratio is found to be 18. 99, p<.01 (see Table 5.12). At government school end, females are more expressive than males. But

there is complete crossover effect at the private school end i.e. private school males are more expressive than females (see Figure 5.2) The rationale could be offered in terms of the fact that government school females are home birds and most of the time they indulge themselves in indoor activities hence they take out their feelings and emotion by expressing themselves in the home environment. On the other hand, in private school sample males and females spend most of their time in outdoor activities and males do some loitering here and there which gives the out let to their pent up emotions and they do not feel the need to express themselves at home and females engage themselves more in talking to their friends (Guilamo-Ramos, Jaccard, Turrisi, & Johansson, 2005; Mount, 2001).

Independence

The analysis of variance reveals that there is a significant difference between schools with F-ratio being 7.401, p<.01. The mean score of private school is higher than government school on independence, a factor of family environment (11.30 v/s 10.51) (see general means table 5.14 for independence). ANOVA table also indicates that there is a significant gender difference with F-ratio being 16.23, p<.01.The mean score of males sample is higher than females sample (11.49 v/s 10.32) (see Table 5.15 & 5.14).

Similarly, the interaction effect of school x gender on the variable of independence is again highly significant with F-ratio being 7.78, p<.01. The mean contingency table 5.16 and fig 5.3 reveals that at the males' end the scores are almost similar for both types of schools (5.75 v/s 5.74). At the females' end private school females are more independent than their counterparts (5.56 v/s 4.76). The reason being that the parents of private school females give equal freedom to both the genders to take independent decisions with optimal level of control and check while in case of government school, the

restrictions are comparatively more upon females than males. The training in independence helps in attaining higher/good grades. The essential features of independence leading to higher goal which ultimately should help in achievement (Hair, Moore, Garrett, Kinukawa, Lippman, & Michelson, 2005).

Achievement Orientation

The two way analysis of variance reveals that the main effect of school is found to be significant for achievement orientation at .01 level with F-ratio being 16.92. The score of government school is higher than private school (12.75v/s11.80) (see Table 5.17). Further, the interaction effect of school x gender on the variable of achievement orientation is significant. The F-ratio is found to be 15.32, p<.01 (see Table 5.18). The mean contingency table 5.19 and Figure 5.4 shows that at government school end, females score higher than males on the factor of academic achievement. But there is a complete crossover at private school end i.e. private school males are more achievement oriented than females. The scores of males are almost same for both the schools (6.25v/s6.23). The government school females have high achievement orientation because in the recent past the parents did not value education or achievement of females but with the advent of modernity, which has reached as a puff of air in the rural areas also hence, females are also given a chance to study and are also induced with achievement orientation(Sharma, 2008).

Moral Religious Emphasis

The two way analysis of variance reveals that the main effect of school is found to be significant for moral religious emphasis at .01 level with F-ratio being 14.93.The score of government school students are higher than private school (11.72v/s10.53) (see Table 5.20 & 5.21). It indicates that in government school students, the moral religious emphasis is higher than private school students.

This may be due to the reason that the stress on ethical and religious issues and values is more in rural areas and in government school students because of their rural background.

Further, the table of ANOVA for moral religious emphasis indicates that the interaction effect of school x gender is significant with F-ratio being 18.10, which is significant at .01 level (see Table 5.21). The mean contingency table 5.22 and fig 5.5 reveals that at government school end, females score higher than males and vice-versa at the private school end i.e. males score high on moral-religious emphasis than females. The reason being that at government school end, females are subjected to more heavy sex role constraints and must contend with culturally created values in the family as they belong to the rural background. Mostly the government school children come from the rural background where, the thrust is on moral religious activities and females are expected to play the central role in these activities.

CONTROL

The analysis of variance reveals that the main effect of school on control is found to be significant at .01 level with F-ratio being 9.80. The mean score of government school students is significantly higher than private school students (9.14v/s8.31) (see Table 5.23 & 5.24). ANOVA table also indicates that there is a significant gender difference with F-ratio being 14.07, p<.01. The mean score of females sample is higher than males sample (9.23v/s8.22) (see Table 5.23 & 5.24).

Further, the interaction effect of school x gender on the variable of control is significant. The F-ratio is found to be 7.76, p<.01 (see Table 5.24). The mean contingency table 5.25 and Figure 5.6 reveals that the scores of females of both the schools i.e. government school and private school are higher than males

(5.01v/s4.13) and (4.22v/s4.09) (see Table 5.25). The rationale could be offered in terms of the fact that females perceived that their family has set rules and emphasize on following rules in the family, but males feel less so as compared to females. This shows that even today irrespective of the types of school, and there areas, females are brought up with strict rules and regulations thus curbing their independence, growth and individuality (Pomerantz, 2005).

6.5.2 Self- Efficacy

The ANOVA table for self-efficacy (see Table 5.27) indicates that there is significant difference with F-ratio being 35.41, p<.01. The mean score of private school is higher than government school (67.0v/s62.46) (see Table 5.26). ANOVA table also indicates that there is a significant gender difference with F-ratio being 9.24, p<.01. The mean score of males sample is higher than females sample (68.89v/s63.57) (see Table 5.26 & 5.27).

Further, the interaction effect of school x gender on the variable of self-efficacy is significant. The F-ratio is found to be 10.56, p< .01 (see Table 5.27).

At government school end, there is not much difference between the self-efficacy of males and females. Males score only few points more than females (31.90v/s31.27). But at private school end, males' score significantly higher than females (34.70v/s32.30) (see Table 5.28 & Figure 5.7)

Self-efficacy refers to judgments' individuals make about their abilities to perform behaviours' at a certain level. The perceptions students hold about themselves and about their academic competence, help to determine what they do with the knowledge and skills they posses and influence their choice of activities, effort, task persistence and task accomplishment. Males have more confidence of their abilities; whereas, females are still under-confident of their abilities, the reason being that females are socialized in such a way that they become socially outward and their achievement oriented attitude is not given due

importance due to which they underestimate themselves and hence have lower level of self-efficacy (Sharma, Verma, & Malhotra, 2008).

6.5.3 Factors of Emotional Intelligence

Self- Awareness

The analysis of variance reveals that there is a significant difference between schools with F-ratio being 4.06, p<.05 on self- awareness, a factor of emotional intelligence. The mean score of private school is higher than government school (94.62v/s92.67) (see general means table 5.29 for self-awareness). ANOVA table also indicates that there is a significant gender difference with F- ratio being 39.94, p<.01. The mean score of males sample is higher than females sample (96.70v/s90.59) (see Table 5.29 & 5.30).

Similarly, the interaction effect of school x gender is again significant with F-ratio being 4.15, p<.05. The mean contingency table 5.31 and Figure 5.8 reveals that at both the schools end i.e. government school and private school males score high on self-awareness than females(47.37v/s 45.30) (49.33v/s45.29) , But the scores of females on the variable of self- awareness in both the schools are almost same(45.30v/s45.29).

Self-awareness means knowing your values, personality, needs, habits, emotions, strengths, weaknesses etc. Males are more self-aware, with a sense of who they are and a vision of the person they want to become. This is due to the reason that males are given more importance and exposure as they are considered the breadwinners of the family. The results depict that females have greater feelings of inadequacy. The reason being that females' work is not viewed as productive and from the very beginning she is considered to be lower sex there by giving rise to inferiority complex. viewed as inferior, females develop feelings of inadequacy and negative self concepts (Sharma & Malhotra, 2007).

Conclusion

The findings suggest that there is no consistency viz a viz variables across samples i.e. the psychological variables show lot of inconsistency in the regression analysis. This may be because of the fact that the government school samples are mainly comprised of rural population. And the private school children are city dwellers, of course, Mandi town is semi modern. The range taken for intelligence i.e. 75th to 85th percentile is not, probably, good determiner of the variables under study. But subjects beyond 85th percentile were very few. For future studies this may be kept in view. The variations in results are also due to the difference in socio-economic status of the children, differential treatment given by the parents, parent's educational level, and influence of the surroundings and so on.

The present study shows that in government school males, relationship dimension which consists of cohesion, expressiveness and conflict and self-esteem have shown significant relationship with academic achievement of adolescents and these variables predict 11% of variance in academic achievement. This may be due to the fact that more congenial home environment, less parental domination and sympathetic parental encouragement has been found to be responsible for the achievement of government school males.

In the other samples of the study i.e. government school females, private school males and private school females, relationship dimension and self-esteem do not play as much as a significant role as in the above sample.

Self-esteem is very basic variable which has been propped up by the variables like expressiveness, independence and achievement orientation because these variables indirectly show the impact on the academic

achievement of adolescents. Hence, the development of self-esteem is partially and indirectly dependent upon the family environment.

Similarly, in government school females, only self-efficacy has turned out to be the significant predictor and other variables do not show any significant relationship with this sample. Self-efficacy predicts 6% of variance in academic achievement only in government school females because in government school females, because of their rural background they want to show their self worth and has been borne out by the results.

In private school males, no variable is turned out to be the significant predictor of academic achievement because they are in the state of transition.

In private school females, again, only self-awareness, a factor of emotional intelligence has predicted 5% of variance in academic achievement and rest of the variables do not show any significant relationship with private school females' sample. This is may be due the reason that private school females are city dwellers and self-awareness is more in cities. They have relatively equal measures of abilities and potentials with males, which facilitates their performance. In the coming years, emotional intelligence will be an important factor which will affect the academic achievement of adolescents.

From the results of analysis of variance, in nutshell, we can say that government school sample is significantly higher on expressiveness, achievement orientation, moral- religious emphasis and control. On the other hand, private school sample is found to be significantly higher on independence, self-awareness, self-efficacy and self-esteem.

Similarly, the males' sample is found to be significantly higher on expressiveness, independence, self-awareness and self-efficacy, while the

females are significantly higher on control. The rest of the factors have insignificant group and gender difference.

From these results, we may conclude that there is no universal factor which affects the academic achievement of adolescents. The consistency of intelligence, creativity, study habits and achievement motivation could have found its way in significance with these samples. The variables of the study undertaken could have depicted more important role in Metro-polis.