

**RELATIONSHIP OF EMOTIONAL INDICATORS  
WITH ACADEMIC ACHIEVEMENT**

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**ABSTRACT**

The present investigation was an attempt to study the difference between high and low academic achievers with respect to their emotional problems. It was assumed that high academic achievers would have less emotional problems as compared to the low academic achievers. For the examination of this hypothesis the Human Figure Drawing (HFD) test was administered on 180 children enrolled in 3rd and 4th grades of a government school of Karachi. The academic achievement of the participants was appraised in terms of their class grades of the previous exam given by them. Statistical analysis by computation of "t-test" revealed a significant difference in the emotional problems of high and low academic achievers.

**INTRODUCTION**

Emotions have a profound effect on humans psychological and behavioral functioning. Emotions not only contribute to the well-being but also to the development of emotional disorders later in life. Early childhood years are considered vital for understanding, learning and managing of emotions because a child's mind is so tender that it readily accepts and imprints what is heard, seen and experienced.

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Emotional upbringing of children, in later years, when they are enrolled in school, markedly affects their academic performance. These are the emotions, which help them sustain their interest in studies, drive them for achievement of good marks, motivate them for the attainment of goals and help them to develop healthy relationships not only with parents but also with teachers and peers at school.

Early childhood educators have traditionally given high priority to enhancing young children's emotional-social development. It is a common belief among educators that the child who does well in school is usually the child who is emotionally well adjusted, while the child who achieves poorly is the one who either has a personality problem or creates problems (Kirkendall and Ismail, 1970).

Different studies have been conducted, which have focused on the comparison of emotional problems of over achievers and under achievers. In this connection Pierce (1961) studied 54 students of 10th grade and 50 of 12th grade boys with superior mental ability as measured by tests given to them in 4th and 7th grades of school. The subjects were divided into high and low achievers on the basis of their academic grade performance during the preceding year. CPI in combination with the personal interview and interviews with mothers were conducted. The results indicated that high achievers showed more favorable personality characteristics especially in responsibility and tolerance when compared to low achievers. They also have a somewhat higher level of motivation and were more active in achievement tasks as well as school related activities than the low achievers.

Werner (1966) in his study found that over achieving boys were more intelligent, emotionally mature, self-assured, venturesome, dominant, spontaneous, and uninhibited but less conforming than the underachievers. The over achieving girls demonstrated more general intelligence, more dependency, conformity and conscientiousness while the female underachievers, were more heedless, happy-go-luck, and excitable than the normal group of girls.

According to Koppitz (1968), 6 emotional indicators namely slanting figures, omission of mouth, omission of body, omission of arms, monsters or grotesque figure, three or more figures tend to be related to "average" and "below average" school achievement. It was seen that the children of both poor and very poor achievement had more emotional indicators as indicated by HFD.

Some studies have been done to see the relationship between emotional indicators (measured by HDF) and school achievement of the child. In a study Gardiner (1969) investigated a crosscultural comparison of hostility in children's drawings. HFD were collected from 2383, 11 to 13 years old boys comprising 26 cultural group. Hostility was highest in drawings from Thailand 35%, Germany 26% and Taiwan 25% & 22%, Yugoslavia 17%, Algeria 15%, Mecca 6%, Syria 3%, Brooklyn non-orthodox Jew 1% and Japanese 1%.

Silvern, Brooks, Griffin & Lee (1980) in a study conducted on 75 students enrolled in 4th grade who were required to draw a picture of themselves in a separate reading and math context. It was found that the height of drawing of self was significantly different for high and low achievers. The context and size of self-portrait in children drawing are discussed as potential achiever of academic achievement. Silvern and Brooks (1981) in another study suggested the low achievers self-portraits may be related to frustration and symbolic acting out.

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Chen (1997) found that children's academic achievement predicted their social competence and peer acceptance. Children's social competence, aggression, leadership, and peer acceptance contributed to their academic achievement.

In another study fifth- and sixth-grade aggressive and acting-out students from a Latino community were organized into two groups on their classroom academic performance. Students who were rated as aggressive but were high on school learning reported more resiliency indicators than those low on school learning. Parental supervision was the key variable between the groups (Robertson and Harding, 1998).

Three studies examined the relationship of rejection and sensitivity measured on the Children's "Rejection Sensitivity Questionnaire" individual differences in response to peers' social rejection in urban, minority fifth to seventh graders. The researchers found that rejection sensitive children behaved more aggressively and experienced increased interpersonal difficulties and declines in academic functioning over time than non rejection-sensitive children (Lebolt, Rincon, Freitas, 1998)

A model of school achievement that included intellectual ability, preschool behavior, and cognitive self-control was tested with 291 kindergarten children. Children who were less aggressive or more prosocial exerted better cognitive self-control over their school tasks and cognitive self-control was positively related to school achievement at the end of the first grade (Normandeau, Guay; 1998).



The importance of parent-child relationship cannot be denied. Bleak home environment has detrimental effects on child's emotional health and progress in school. A Canadian research studied the effects of divorce on the school adjustment, education achievement, self-concept, and school absenteeism of children. To examine these effects, data were collected on second to eighth-grade children from separated families. Mothers (N=16) were interviewed and the children (N=21) completed the Piers-Harris Children's Self-Concept Test and the Wide Range Achievement Test. School achievement and ability of the children and that of a matched group of 21 children from intact families were rated by teachers who also completed the Walker Problem Behavior Identification Checklist for each child. All children completed the Draw-A-Person Test. Teachers rated 50% of the children from separated families as achieving below grade placement compared to 29% of their two-parents and peers. The results on the Draw-A-Person Test identified 33% of the children from separated families as being disturbed compared to 14% of the children from intact families. The teachers rated children from separated families, with a significant difference between the two groups in acting-out behavior. Children from separated families show significantly more school-related problems than children from intact families (Hett, 1980).

Southworth (1984) compared the academic achievement, classroom behavior, and emotional stability of 21 elementary school students from single-parent families to that of 21 students from intact, nuclear families. Behavior checklists were used to ascertain classroom behavior, and academic achievement was assessed through analysis of test scores on the Educational Records Bureau Comprehensive Test. In addition, human figure drawings were studied to interpret the children's emotional status. Results indicated that there was a statistically significant difference between single-parent and nuclear family children, with those from

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single-parent homes showing lower mathematics and reading achievement, poorer development in school in certain areas, and less emotional stability than their nuclear family classmates.

Another study was done on 347 seventh graders and their parents to examine relationship between parental involvement and hostility to academic performance. Parental behavior affected later academic performance, when controlling for earlier performance. Setting and positively reinforcing appropriate behavioral standards increased academic performance, whereas, hostility decreased performance. Parental educational level was also related to involvement and to academic performance (Melby and Conger, 1996). Similarly a study being done on 144 children (age 10) investigated whether parental verbal violence had negative effects on self-esteem and from physical punishment, contributed to low self-esteem and school achievement (Solomon, Serres, 1999).

This study examined associations between parent-child relationship and adolescents' academic performance. Adolescents in 7th and 10th grade completed self-report questionnaires assessing 6 features of parent-adolescent relationship: time spent together, number of activities, degree of influence, and frequency of experiencing positive emotions, negative emotions, and subjective closeness. Academic performance was assessed with school grades and self-report measures of academic functioning and academic motivation. Findings indicated that seventh graders had higher academic performance than tenth graders and had relationship with parents that involved more time, activities, influences, and positive emotions. Parent-adolescent relationship features predicted academic performance in the tenth-grade sample but not in the seventh-grade sample. The strongest predictors of tenth graders' academic performance were the degree of influence and the frequency of experiencing negative

start emotions in relationship with mothers. The findings suggest that multidimensional measures of parent-adolescent relationship features may be useful for improving understanding of parents' role adolescents' academic performance (Zook, Repinski; 2000).

In the light of above-mentioned studies it can be said that emotional problems have tremendous effects on the academic performance of the students. On the basis of aforementioned studies it was hypothesized that high academic achievers will have less emotional problems as compared to low academic achievers. This assumption was anchored with the notion that there will be less number of emotional indicators in the drawings of high academic achievers when compared to the low academic achievers.

## METHOD

### Particepants:

There were 221 student participants who took HFD test, The drawings of 41 students did not fit in to criterion of present research, therefore, were discarded as these children had IQ of less than 90. The remaining sample consisted of 166 regular school going children whose ages ranged between 8 to 10 years. The sample included children of both sexes studying in different sections of grade 3rd and 4th at Federal Government School, Karachi.

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### Material:

In order to maintain uniformity in the administration all children were provided with plain sheet of white paper of dimensions of 29.5 x 21 cm along with the stationery (i.e. sharpened pencils with erasers). Koppitz checklist of emotional indicators for assessment of emotional problems was used for scoring the drawings, whereas, Goodenough checklist of IQ was used for assessment of intelligence of children through the drawings made by them.

### Procedure:

For the administration of the test and to have an access of academic record of children, formal permission was taken from the Principal of the school. In the first phase the HFD test was administered during regular classes, in order to ensure that all children are present. Children were asked to clear the tables and were given plain sheets of paper with the required stationery. They were instructed to write their name, age, class, and section on the top right hand corner of the sheet. The examiner read out the following instructions after making sure that all children had written their particulars appropriately on the page.

"On this piece of paper I would like you to draw a " whole person". It can be any kind of person you want to draw. Just make sure that it is a whole person and not a stick figure or a cartoon figure. You may draw a man or a woman or a boy or a girl whatever you want to draw."

Since there was no time limit for completing the test, therefore, as soon as a child finished his or her drawing, the examiners took back the drawing paper.



In the second phase students' academic performance was evaluated in terms of the grades obtained by children in their respective classes. For this purpose after the data collection from 221 children, the examiner obtained the exam result in the form of grades and percentages from the school data base. There is a uniform procedure to assign percentages to each grade in all government schools of Pakistan (see appendix A).

In the third phase, to rule out the factors of intelligence, which might have an effect on the academic performance apart from emotional problems, which was the primary focus of the study; it was decided to calculate the IQ by means of HFD through the method introduced by Goodenough (1926). This was done to ensure that only those children are included in the sample who have average intelligence i.e. obtaining an IQ of 90 and above according to the standard criterion of intelligence given in WISC-R (see appendix B). As the original sample consisted of 221 children but after the analysis of intelligence, 41 children were excluded as they obtained an IQ of less than 90 leaving behind a sample of 166 children.

In the fourth phase all the drawings for emotional indicators were assessed with the help of the checklist developed by Koppitz (1968). The inter scorer reliability was obtained for emotional indicators amongst the two examiners independently. The reliability was obtained by using the method of Pearson's Product Moment Correlation Co-efficient of statistical significance, i.e. .99 (Table No 1).

Those children who obtained A+, A, and B grade were considered high academic achievers where as those who obtained C, D, and E grades were considered low achievers. The "t-test" was computed on the two groups of high and low achievers to find out differences among the emotional problems of children.

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### RESULTS

Table 1

Inter Scorer Reliability of Emotional Problems

r	p-value
.99	.01

Table 2

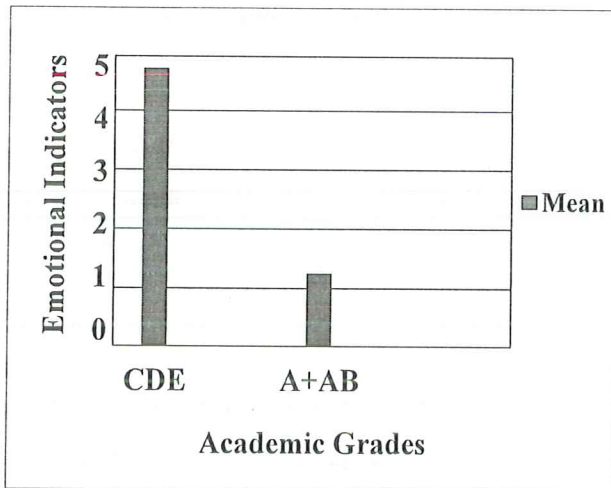
Comparison of High and Low Academic Achievers with Respect to their Emotional indicators

Grades	N	Mean	S D	SE Mean	df	t-value	P-value
C,D,E	90	4.68	2.23	0.24	178	12.52	0.000
A+,A,B	90	1.33	1.20	0.13			

- Grades: C,D,E (Low Achievers)  
A+,A,B (High Achievers)

Graph 1

Graph Showing Comparison of Means of Low and High Academic Achievers



## DISCUSSION

The result of the present study has indicated (table 2 and graph 1) that there is a significant difference in emotional indicators of high and low academic achievers ( $t = 12.52, p = 0.0000$ ). The lesser the emotional indicators the higher the achievement. whereas, the greater the emotional indicators the lower the achievement. It is a common observation that emotional disturbance does not let a person to focus on scholastic tasks, which requires a great deal of concentration and mental energy to carry them out successfully. This is one of the many reasons why children are unable to produce decent results in class. Furthermore, it is also observed

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that traditional Pakistani families who have lots of expectations from their children, do not hesitate to criticize and often become punitive for those who are poor in studies. Parents usually have the tendency to make comparisons between their children. Those who are good at studies are not only encouraged but also praised and rewarded. whereas, academically weak children are often made aware of their poor performance through frequent negative feed backs. Consequently these children develop negative self-concept and poor self-esteem.

Low achieving children are also the neglected ones in the class. They are the subject of criticism and punishment by teachers. It is observed that the teachers of junior classes often are less sensitive to the emotional needs of children that is why they tend to overlook the emotional problems in most cases. Some of the low achieving students become submissive, whereas, others try to become assertive by aggressively exerting control and dominating their peers. These children display noncompliant attitude in classes as well as in homes.

High academic achievers earn respect and high social status. These are the children who are popular in class and receive acceptance in their social groups as opposed to low achievers. They are found to be keen and quick learners, innovative in trying new methods of learning and work harder to maintain their grades. The favorable home and school environment not only positively affect their emotional well-being but also facilitate their performance at school. They develop effective coping strategies as compared to those students who are weak in academics, which help them to lessen their tension and anxiety to cope up with academic pressure.



In Pakistan it has been seen that majority of teachers are not aware of emotional problems of the pupils in the class or some times they are not warm or sensitive enough to pay attention to the basic emotional needs of children. Their primary concern remains to finish syllabus in time as a result they tend to overlook the emotional problems of students. Hasan's (1990) study further throws light upon the economical aspects of the teachers of Pakistan. The researcher brought the fact in forefront by writing that teachers of government schools are paid very little and they are often responsible to teach an overcrowded class that at times it becomes difficult for the teachers even to remember the names of each and every student. In such a scenario it becomes complex for teachers to notice emotional problems of children.

Thus it can be concluded that an early impact of the schooling experience on the children has implications for both personal-social and cognitive performance outcomes (Slaughter, 1975). The quality of interaction with teachers and peers predicts sustainability or fluctuation in emotional and educational outcomes of students. The growth of children's and emotional development not only depends upon nurturing attitude of teachers but also of parents.

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### Appendix - A

#### Percentages assigned to different grades

Grades	Percentages
A+	80% and above
A	70-79%
B	60-69%
C	50-59%
D	40-49%
E	33-39%

This classification of grades and their equivalent percentages is a standard criterion through which performance is evaluated in all government schools in Karachi.



Appendix - B

WISC-R IQ Classification

IQ	Classification
130 & above	Very superior
120-129	Superior
110-119	High average
90-109	Average
80-89	Low average
70-79	Borderline
69 & below	Mentally Retarded