A STUDY OF LOCALE-WISE DIFFERENCES IN CERTAIN COGNITIVE AND NON-COGNITIVE VARIABLES

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ABSTRACT

The present study has been designed to investigate the locale-wise differences among high school students on the basis of certain cognitive variables like general mental ability and academic achievement and non-cognitive variables such as anxiety, emotional maturity and social maturity. The study was conducted over a sample of 400 (200 boys and 200 girls) high school students studying in Xth class in 8 different schools (4 urban and 4 rural) affiliated to CBSE, New Delhi. Dr Ahuja's group test of intelligence, Sharma's general anxiety scale for children, Singh & Bhargava's Emotional maturity scale and Dr Nalini Rao's Social maturity scale were employed to measure students' general mental ability, anxiety, emotional maturity and social maturity. The aggregate scores of the selected students in the C.B.S.E. board examination were taken to show their level of academic achievement. The results reported that Rural and Urban high school students differ significantly in their level of general mental ability and anxiety whereas no significant differences were found between them on the variables of emotional maturity, social maturity and academic achievement.

Keywords: Locale-Wise, Cognitive Variables, Non-Cognitive Variables.

INTRODUCTION

Locale-Wise

Locale-wise in the present study means the location of the area from which the data is collected. Here locale-wise refers to high school students studying in rural and urban areas.

Cognitive Variables

It represents those factors which affect the cognitive aspect of personality i.e. general mental ability and academic achievement.

Non-Cognitive Variables

It represents those factors which affect the non-cognitive or affective aspect of personality i.e. anxiety, emotional maturity and social maturity.

The measurement of academic achievement is justified due to two fundamental assumptions of psychology. Firstly, there are differences within the individual from time to time, known as behaviour oscillations which account for differences in the academic achievement of the same individual from time to time and from one educational level to another. Secondly, individual of the same age group, same grade and of same general mental ability usually differ in their achievement. High IQ is an advantage in life because virtually all activities require some reasoning and decision making, conversely, a low IQ is often a disadvantage (Arvey, 2004). In addition to this, individuals differ in intelligence due to differences in both, their environment and genetic heritage (Duke, 2004). Actually, it is almost impossible to separate intelligence 'in the genes' from intelligence 'due to experience'. Genes do not fix behaviour rather they establish a range of possible reactions to the range of possible experiences that environment can provide.

Today, most of the young students are not able to achieve according to the expectations of the parents as well as the teachers. There is no doubt that it is affected by two broad factors: subjective factors or individual factors and objective factors or environmental factors. The subjective factors are related to the individual himself and the objective factors pertain to the environment of the individual. Anxiety, emotional maturity and social maturity

are the three individual and non-cognitive factors that may affect the academic achievement of the students.

Anxiety is a state of diffused apprehension. It is vague, non-specific and objective less. Researchers of Weiner (1965) and Kazem (1973) generally agree that certain degree of anxiety may motivate the student and may incline to better academic achievement. Pomerantz, Altamatt and Saxon (2002) found significant sex differences on the basis of anxiety scores.

According to Walter D. Smitson (1974), 'Emotional maturity is a process on which the personality is continuously striving for greater sense of emotional health, both intra-psychically and intra- personally'.

Social maturity encompasses attainments in several domains, including independent functioning, effective interpersonal communication, interaction and responsibility i.e. contributing the well being of society (Greenberg, josselson, Knerr and Knerr, 1995). Parents and teachers must be very particular in maintaining interpersonal relationship with the young students in order to challenize their energy in right direction.

The present study has been designed to investigate differences between rural and urban high school students on the basis of their general mental ability, anxiety, emotional maturity, social maturity and academic achievement.

Method

Descriptive method of research has been followed. For carrying out any kind of research, it is important to chalk out a design. According to Best (2010), 'all research involves elements of observation, description and the analysis of what happens under certain circumstances'. A systematic procedure is a must to collect the necessary data, which helps to attain the objectives and to test the hypotheses formulated for the study.

The present study is essentially a descriptive survey coupled with causal-comparative method where certain cognitive and non-cognitive variables like general mental ability, anxiety, emotional maturity, social maturity and academic achievement are taken collectively and have been treated as independent variables.

Sample

The sample of 400 students (200 Boys and 200 Girls) for investigation has been randomly selected from the four randomly selected districts of Punjab State i.e. Amritsar, Kapurthala, Bathinda and Patiala. From each of the four selected districts, one public senior secondary school affiliated to C.B.S.E., New Delhi was selected randomly and another Jawahar Navodiya Vidhalaya affiliated to the same board from the same district was selected. Thus from each district, two schools were taken up i.e. one urban and one rural. From each school again, the students were selected randomly from the different sections of the tenth class. The sample was collected by using multistage random sampling technique.

Tools Used

In the present study Dr. Ahuja's group test of intelligence (1998), Dr. Sharma's general anxiety scale for children (2003), Singh and Bhargava's Emotional maturity scale (1999) and Rao's Social Maturity Scale (RSMS) (2002), have been used. Academic achievement score was collected from the results of matriculation examination conducted by C.B.S.E., New Delhi.

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 were self explanatory. The answers of the subjects were recorded on the scale protocol. Scoring was done according to the instructions given in the manual. Higher the general mental ability, anxiety, social maturity and academic achievement scores indicate higher level of general mental ability, anxiety, social maturity and academic achievement whereas high emotional maturity scores show low level of emotional maturity.

In order to analyse the data, raw scores obtained on the basis of general mental ability, anxiety, emotional maturity, social maturity and academic achievement were converted into T-scores. t-test was applied to see the significance of the differences between rural and urban high school students on the basis of their general mental ability, anxiety, emotional maturity, social maturity and

academic achievement scores.

Results and Discussion

Rural and urban high school students differ significantly in their general mental ability as the value of t-test applied is significant at .01 level. (Table 1).

The level of general mental ability is high in case of urban high school students vide table. This may be due to the fact that urban high school students have more facilities of getting education, belong to educated families and hence, more intelligent than their rural counterparts.

The results of from Table 1 also reveal that there is a significant difference in the anxiety of rural and urban high school students as the t-value (4.223) is found to be significant at .01 level. It clearly indicates that rural high school students are more anxious than urban ones. The reasons for urban student's lower anxiety as compared to rural ones may be due to the fact that urban high schools students are more intelligent active alert and have more facilities for getting education at their disposal and hence react with all situations without being anxious. Moreover, their parents are also educated and help their wards in solving their problems whereas in rural setting, parent are illiterate and students have to help in their parent's work besides getting education. These results are in line with the studies conducted by Shikari (1986) and Yadav (1989) who reported that rural students had greater anxiety than urban students.

The results of t-test applied between the mean scores of rural and urban student's emotional maturity indicate that

they do not differ significantly in their emotional maturity scores as the value of t-test (.933) is found to be non-significant. After comparing their means, it is found that mean emotional maturity score of urban high school students is higher (less emotionally mature) than those of their rural counterparts. High emotional maturity in rural students may be because rural students face more problems, have lesser means for giving outlet to their emotions and have more toleration power as compared to urban students. The findings of the present study are in resonance with the findings of Harleen (1998) and Kaur (2001) in which rural students were found to be more emotionally mature as compared to urban students.

The result of t-test of significance of the means applied points out that the rural and urban students do not differ significantly in their social maturity scores as the value of t-test (1.168) is found to be not significant. After comparing their means, it is found that mean social maturity score of urban students is higher than those of rural ones. The high social maturity of urban students may be due the fact that in urban setting, environment is calm, congenial; there is more feeling of oneness, students by nature are cooperative, extroverts, more expressive, experienced and intelligent. All these above factors make difference in social maturity of high school students of rural urban areas. The above results are in agreement with the finding of chand (2007) who found no significant difference between rural and urban students on the personal adequacy and inter-personal adequacy.

The results of difference between the mean academic achievement scores of rural and urban are found to be non-significant t=.419. High academic achievement of urban students in their matriculation examination may be due to their high level of general mental ability and social maturity and due the availability of more means, facilities, guidance and better institutions for getting education. The above results are in conformity with the studies conducted by Rajendran, S. et. al. (2007) who concluded that locality of students has no influence on the achievement scores in Chemistry Whereas Rajnish (1998), Prakash (2000), Towde (1999) and Mrignainy (2003) found the significant differences between rural and urban

Sr.No.	Variables	Group	Mean	SD	SE$_D$	df	t-value
1	General Mental Ability	Rural	44.028	7.808	.803	398	14.88**
		Urban	55.971	8.239			
2	Anxiety	Rural	52.068	9.961	.980	398	4.223**
		Urban	47.931	9.628			
3	Emotional Maturity	Rural	49.533	9.291	1.000	398	0.933
		Urban	50.466	10.665			
4	Social Maturity	Rural	49.416	8.933	.999	398	1.168
		Urban	50.584	10.955			
5	Academic Achievement	Rural	49.790	8.511	1.001	398	0.419
		Urban	50.210	11.313			

** Significant at .01 level

Table1. Comparison between Rural (N=200) and Urban (N=200) High School Students on the variables of General Mental Ability, Anxiety, Emotional Maturity, Social Maturity and Academic Achievement

students in achievement. Pictorial view for the mean general mental ability, anxiety, emotional maturity, social maturity and academic achievement scores of rural and urban high school students is shown in Figure 1.

Conclusion

It may be concluded that in a given set of variables rural and urban high school students differed significantly on the basis of their anxiety and general mental ability whereas no significant difference is observed between rural and urban high school students on the basis of their emotional maturity, social maturity and academic achievement.

Recommendations & Educational Implications

• Anxiety is one psychological factor which plays crucial role in the final outcome of all the Students. It is being explored incessantly. Immediate remedial measures are needed to be taken to control, manage and regulate their anxiety level and bring down the same to desirable level by adopting suitable psycho-regulatory techniques. Teachers at the time of examination need to monitor and adopt serious measures of anxiety regulation of their students. Rural students have significantly higher level of anxiety and this deserves immediate attention of teachers and counselors who constantly interact with them.

• The study has implication for teachers, principals and administrators as well. General mental ability should be given adequate weightage for the admission in different professional courses.
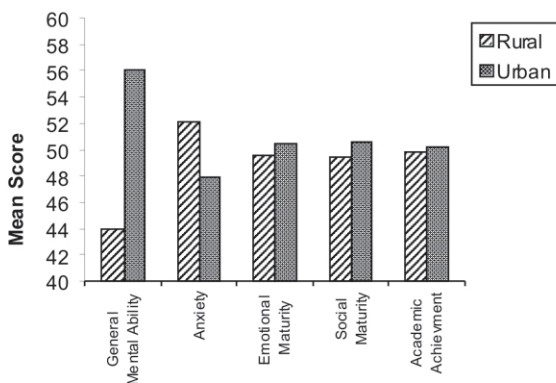

Figure 1 Showing the Mean Score of General Mental Ability, Anxiety, Emotional Maturity, Social Maturity and Academic Achievements of Rural and Urban High School Students

• It is recommended that more facilities and better educational environment should be provided to the rural students so as to increase their level of general mental ability.

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