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Relationship of Self Confidence & Anxiety with Actualisation and Non Actualisation of General Mental Ability of Secondary School Students

Ajay Kumar Kushwaha*

Research Scholar, Faculty of Education, CMJ University, Jorabat, Meghalaya

Abstract – The aim of this study is to analyses the relationship of self confidence & anxiety with actualisation and non actualisation of general mental ability of secondary school students. This is a descriptive-analytic study which was conducted on high school students who were 16-18 years old, in two schools. Data collection was done by applying emographic information questionnaire and Coppersmith Self-Esteem scale. The relationship between age, parental age, economic status self confidence and anxiety was assessed. Finally, data were analyzed by in SPSS software, using correlation test and ANOVA. Data analysis reported Girls (M = 50.331) are found to be slightly more intelligent than boys (M= 49.669). Rural high school students are more anxious (M= 52.068) than urban high school students (M= 47.931).

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INTRODUCTION

Puberty involves the acquisition of fertility, mental skills and bodily dynamic changes. The rapid phases of internal and external changes imply puberty as a fairly short adventurous event which can bring about a kind of chaos, disorganization, lack of quality, phobia, and mostly undesirable health and social behaviors [1]. Puberty is one of the most important periods of life because of its deep physiological, physical and psychological developments.

Mental development is another notable aspect of puberty. Self-concept is one of its components. This is one's mental imagery of himself, all his emotions, beliefs and values along with the (1). Self-concept isn't an innate feature, but it is a social phenomenon which can occur as a result of interaction with others (2). Youth is known as one of the most critical periods of life for its self-concept development. Self-esteem is one's integral dimensions of self-concept and refers to one's judgement on his worthiness or worthlessness, self-acceptance or non-acceptance, as well as an attitude towards oneself. In fact, one might not see himself as others see him (3, 4) Self-esteem is one of the human life necessities, and most experts consider it as the main factor in social - emotional adaptation (5-7).

The current study will explore self-confidence and Anxiety with actualisation and non actualisation of general mental ability of secondary school students. Self-confidence and anxiety are the dependent variables in this study and the independent variables are age, sex, level of education, level of employment, subjective level of happiness and level of life satisfaction.

METHODOLOGY:

Research Design:

The present study is essentially a descriptive survey coupled with causal comparative method and the techniques of bi-variate and multi-variate correlations.

Sample and sampling procedure

The final sample consisted of 400 students, 200 boys (100 rural and 100 urban) and 200 girls (100 rural and 100 urban).

A different procedure was adopted in the selection of students from schools. In four randomly selected co-educational urban schools of each district, there were minimum 3 and maximum 5 sections of secondary students. From each section equal number of boys and girls were selected randomly in respect of the students included in the sample.

Tools used

The earnest efforts were made to choose appropriate standardized tools to measure general mental ability, anxiety, emotional maturity and social maturity. The tools were selected due to two main reasons: because of their suitability to the sample; and their meeting to the vigorous standards of

reliability and validity as psychometric instruments. The tools were employed for data collection are Rao's Social Maturity Scale (RSMS) (2002), Ahuja's Group Test of Intelligence (GGTI) (1998), Yashvir Singh & Bharagava's Emotional Maturity Scale (EMS) (1999) and Anil Kumar's General Anxiety Scale for Children (GASC) (2003), (8-11).

Scoring

The investigator himself carried out the scoring of response sheets according to the scoring keys given in the four test manuals.

Statistical techniques

In order to analyze the data, obtained on the basis of self confidence and anxiety the raw scores of the whole sample were converted into T-scores and again their mean, median and standard deviation were computed. The data were analyzed separately for boys and girls and the total sample.

An effort here was made to find out the contribution of each variable independently in the academic achievement through the method of multiple coefficients of correlations. Thus different variables taken in the present study are added step by step and their values of multiple coefficients of correlation were computed.

The regression equation used for the prediction of the success in achievement reads:

$$X = r \frac{\sigma_x}{\sigma y} (y\text{-}M_y) + M_x$$

RESULT ANALYSIS

In order to find out the range and distribution of scores on different variables, mean, standard deviation, skewness, kurtosis, standard error of skewness and standard error of kurtosis were calculated for the total sample. The detailed results are presented in table 1 for the variables of self confidence and Anxiety.

Table 1: Mean, SD, Sk, Ku, SE_{sk} and SE_{ku} of Raw and T-scores for Total Sample (N=400) on the variables of self confidence and Anxiety

Sr. No.	Variables	Mean Raw Score	SD Raw Score	Mean T-score	SD T-score	Sk	Ku	SEsk	SEku
1.	self confidence	73.503	19.874	49.999	10.00	-0.105	-0.74	0.122	0.243
2.	Anxiety	23.858	7.989	49.999	10.00	-0.137	-0.563	0.122	0.243

In order to find out the range and distribution of scores on various variables, mean, standard deviation, skewness, kurtosis, standard error of skewness, and standard error of kurtosis were calculated for boys. The detailed results are presented in table 2 on self confidence and Anxiety.

Table 2: Mean, SD, Sk, Ku, SE_{sk} and SE_{ku} of Raw and T-scores for Boys (N=200) on the variables of self confidence and Anxiety.

Sr. No.	Variables	Mean Raw Score	SD Raw Score	Mean T-score	SD T-score	Sk	Ku	SEsk	SEku
1.	Self confidence	72.845	19.461	49.669	9.792	-0.275	-0.589	0.172	0.342
2.	Anxiety	22.160	8.192	47.875	10.254	-0.023	-0.788	0.172	0.342

In order to find out the range and distribution of scores on various variables, mean, standard deviation, skewness, kurtosis, standard error of skewness, and standard error of kurtosis were calculated for girls. The detailed results are presented in table 3 for all the variables.

Table 3: Mean, SD, Sk, Ku, SE_{sk} and SE_{ku} of Raw and T-scores for Girls (N=200) on the variables of on the variables of self confidence and Anxiety.

Sr. No.	Variables	Mean Raw Score	SD Raw Score	Mean T-score	SD T-score	Sk	Ku	SEsk	SEku
1.	Self confidence	74.160	20.307	50.331	10.218	0.036	-0.903	0.172	0.342
2.	Anxiety	25.555	7.422	52.124	9.289	-0.162	-0.275	0.172	0.342

For the sake of convenience, the range of means, standard deviations of raw scores and T-scores on the variables of self confidence and anxiety are presented in table 4.

Table 4: Range of means, SDs, Raw Scores and T-Scores obtained by Total students (N=400), Boys (N=200) and Girls (N=200) on the variables of self confidence and Anxiety

Sr. No.	Variables	Range of Means		Range of SDs		Range of Raw Scores		Range of T-score	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1.	Self confidence	72.845	74.160	19.461	20.307	31	116	28.614	71.383
2.	Anxiety	22.160	25.555	7.422	8.192	7	43	28.898	73.960

Table 5 presents comparison based on gender differences on the variables of self confidence and anxiety.

Table 5: Comparison between Boys (N=200) and Girls (N=200) on the variables of self confidence and anxiety

Sr. No.	Variables	Group	Mean	SD	SE_D	df	t-value
1	Self confidence	Boys	49.669	9.792	1.001	398	0.661
		Girls	50.331	10.218			
2	Anxiety	Boys	47.875	10.254	.978	398	4.343**
		Girls	52.124	9.289			

**** Significant at .05 level ** Significant at .01 level***

The t-value as entered in table 5 for self confidence of boys and girls is 0.661, which is statistically not significant. This shows that there is no difference in the level of self confidence of boys and girls. The values of the mean scores of boys (M= 49.669) and Girls (M= 50.331) they obviously show that girls are slightly smarter than boys as shown in Fig 1.

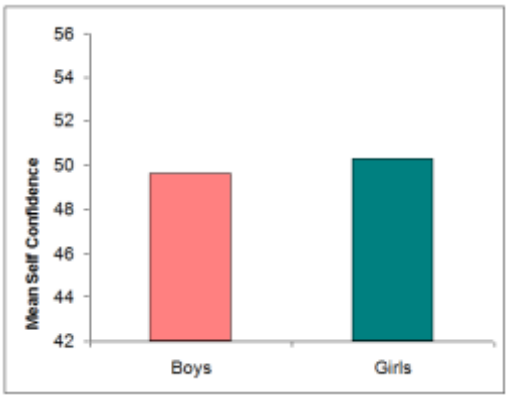

Fig 1: Representing the Mean Scores of Self confidence for Boys and Girls

The t-value as presented in respect of anxiety of boys and girls is 4.343, which is significant at .01 level. This reveals that there is significant difference in the mean anxiety scores of boys and girls. The mean anxiety scores of boys and girls are (M= 47.875) and (M= 52.124) respectively which clearly indicates that girls are more anxious than boys as represented in Fig. 2.

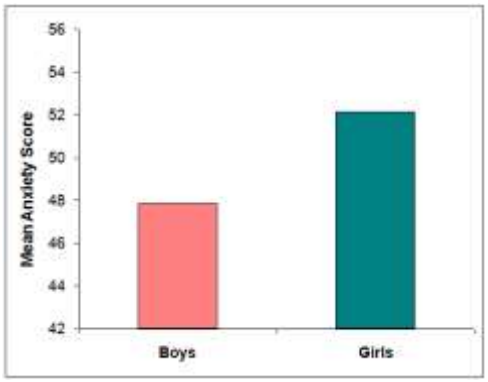

Fig 2: Representing the Mean Scores of Anxiety for Boys and Girls

Actualization and Non actualization in achievement

Shorn of all technicalities, the term 'Actualisation of General Mental Ability' occurring in the title of the above stated research problem refers to the discrepancy between one's academic achievement and of intelligence. Logically, if differences both in achievement and intelligence (general mental ability) are subject to measurement, then we are justified to talk about the phenomena of 'Actualisation' of one's potential ability. The discrepancy between one's academic achievement and intelligence will be operationally defined by working out differences in the levels of one's actual achievement and that for predicted achievement. This was necessitated for presenting the cross validating evidence and to make the present study of a good prognostic value. The regression equation used for the prediction of the success in achievement reads:

Where

X = the predicted value of dependent variable i.e. academic Achievement score.

Y = Measure of criterion variable i.e. measure of general mental ability as independent variable.

M_x = Mean of predictor scores i.e. academic achievement scores. M_y = Mean of the criterion scores i.e. general mental ability scores.

σ_x = S.D. of the predictor variable

σ_y = S.D. of the criterion variable

Actualization of the Total Sample

Table 6 presents the results of the t-test applied to actualizers, par-actualizers and non-actualizers on the basis of their mean anxiety.

Table 6: Comparison Among Actualizers (N=125), Par-actualizers (N=150) and Non-actualizers (N=125) on the variables of Anxiety

Sr. No.	Variables	Group	Mean	SD	SE_D	df	t-value
1	Anxiety	Actualizers	49.597	9.938	1.208	273	0.819
		Par-actualizers	50.587	10.007			
		Actualizers	49.597	9.938	1.267	248	0.079
		Non-actualizers	49.697	10.101			
		Par-actualizers	50.587	10.007	1.217	273	0.731
		Non-actualizers	49.697	10.101			

*** Significant at .01 level*

The results of table 4.5 depict that actualizers and par-actualizers, actualizers and non-actualizers, non-actualizers and par-actualizers do not differ significantly on the variable of anxiety and emotional maturity as all the obtained t-values are less than 1.96 to be significant value at .05 level of confidence. Although after comparing their means it was found that mean anxiety score of actualizers (M=49.597) was lower than those of non-actualizers (M=49.697) and par-actulizers (M=50.587) whereas mean emotional maturity score of non- actualizers (M=50.283) was higher than those of actualizers (M=49.656) and par-actualizers (M=50.051) as shown in Figure 3 and 4.

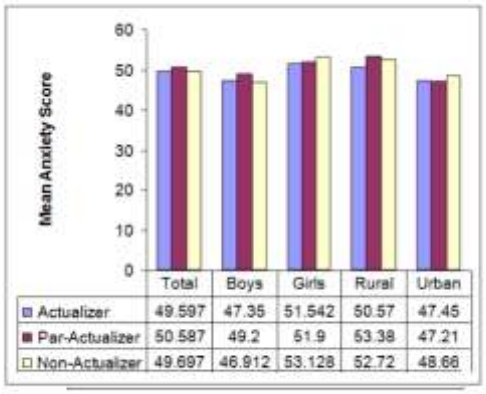

Fig. 4.3: Representing Mean Anxiety Score for Actualizer and Non-Actualizer Boys, Girls, Rural and Urban High School Students

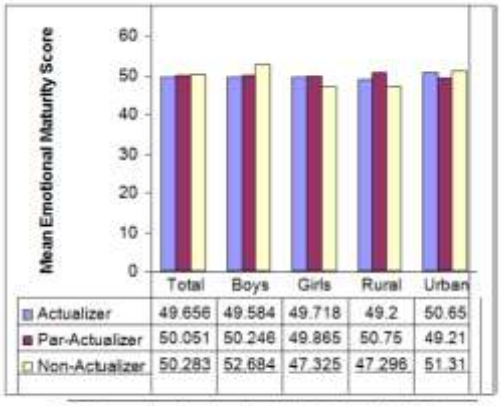

Fig. 4: Representing Mean Emotional Maturity Score for Actualizer and Non-Actualizer Boys, Girls, Rural and Urban High School Students

CONCLUSION:

It is concluded that General mental ability showed a significant positive relationship with academic achievement. Anxiety showed negative relationship with the academic achievement. It is also concluded that No significant differences between actualizers and non-actualizers, non-actualizers were found on the basis of their mean anxiety and emotional maturity scores whereas the differences were significant among these groups on the basis of their social maturity.

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Corresponding Author

Ajay Kumar Kushwaha*

Research Scholar, Faculty of Education, CMJ University, Jorabat, Meghalaya