

**EFFECT OF PEER INTERACTION ON
ANXIETY, DEPRESSION AS WELL AS
ACHIEVEMENT OF
ADOLESCENT STUDENTS
- A CROSS SECTIONAL REGIONAL STUDY**

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**Submitted by
Dr. Nita Mitra
Associate Professor
Siliguri B.Ed. College**

SUMMARY

INDEX

• INTRODUCTION:	02
• OBJECTIVES:	03
• SAMPLING PROCEDURE AND METHODOLOGY:	04
• SAMPLING DISTRIBUTION:	05
• TESTS/TOOLS FOR SUBJECTIVE MEASUREMENTS:	05
• SCOPE AND DELIMITATIONS:	06
• RESULTS:	08
• CONCLUSION:	24

INTRODUCTION:

Common experiences indicate that *Peer-interaction* may help the backward students who may be shy in expressing themselves. A student can get a meaningful reflection from her/his friend as well. It is said that one can identify the knowledge gap in her/his own understanding effectively at the time of communicating it to others. *Peer interaction* is believed to be very much important for getting rid of anxiety and depression as well.

Adolescence in general is an important period for the development of a socially integrated self-concept, while a negative self concept may affect future decisions through depression and anxiety. Depression and anxiety during formative years can have devastating consequences for adolescents.

According to the great educators and experts the best medium of instructions is the mother tongue of the students. Others put importance on the instructions through English. The confusion prevailing in this area may be a source of anxiety as well.

The problem with anxiety and depression is further modulated with differences in attitudes and constraints of girls and boys.

Many a times a poor level of interaction with the peers is considered to be an indicator of anxiety and depression. Also, unmonitored peer-interaction may have evil effects.

Studies on the adolescents of the western countries may not be very much relevant. Indian adolescents are having different kind of aspirations and interacting differently in a peer-group. Therefore, it becomes necessary for the Cross-sectional regional study, like the present one.

The knowledge gathered from the research work may be useful to the counsellors at schools of the region under study. The knowledge may also add to the general body of knowledge which tries to answer questions like how the nature of anxiety, depression and peer action and their effect on achievement may vary with variations in the social geography and social culture.

It appears that in the literature there are interesting studies involving peer-interaction, achievement, anxiety and depression of Adolescents. However, no other

researcher except a previous work of the present investigator (Mitra, 2017), conducted her/his study with the objectives proposed here. In that study it was observed that the learners may not be having enough understanding for how to interact effectively with the peers and that may lead to the apparently misleading observation indicating a poor correlation of achievement with peer-interaction.

Hence, this study is proposed to be conducted in continuation of the previous work of the investigator (on B.Ed trainees) to bridge the gaps of knowledge in this area especially for the region indicated.

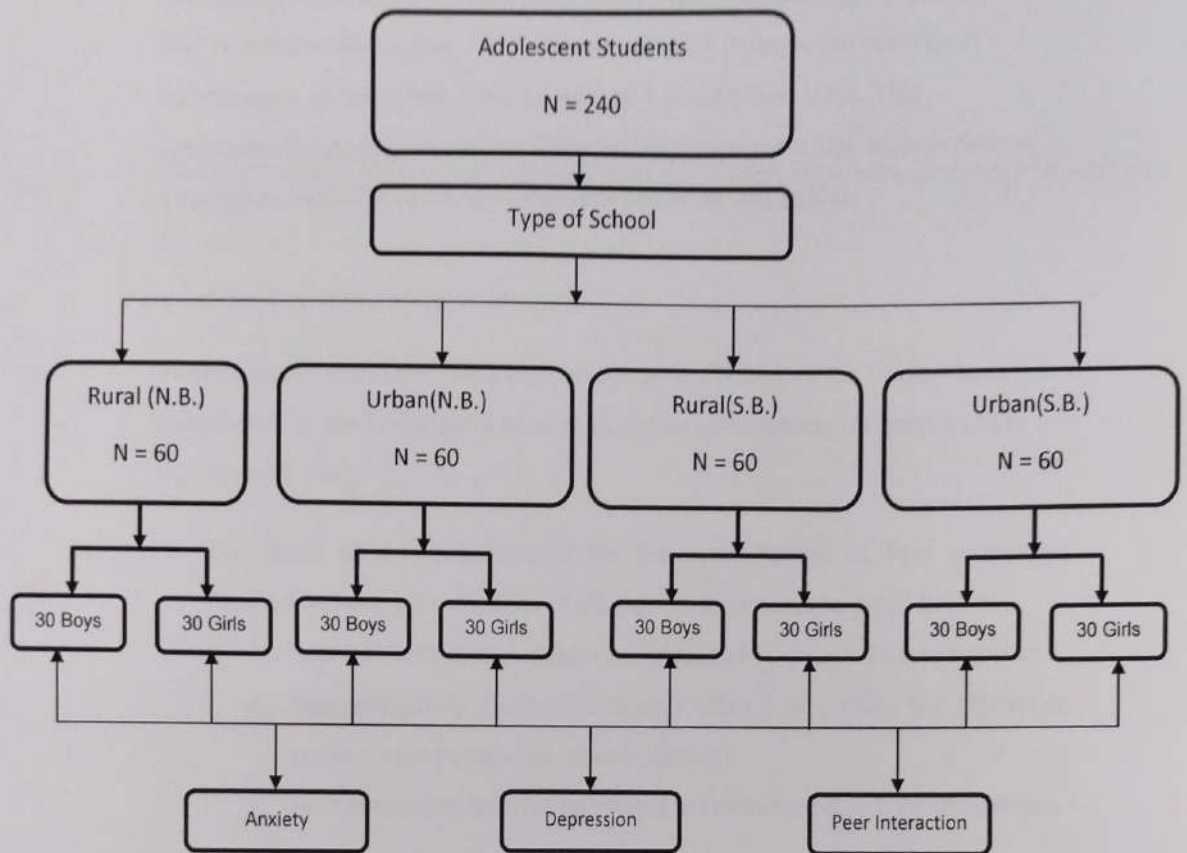
OBJECTIVES OF THE STUDY:

- i) To study the **difference** between **English medium adolescent students** and **Bengali medium (mother tongue) adolescent students** with respect to their **level of peer interaction motivation**.
- ii) To study the **difference** between **English medium adolescent students** and **Bengali medium (mother tongue) adolescent students** with respect to their **level of anxiety**.
- iii) To study the **difference** between **English medium adolescent students** and **Bengali medium (mother tongue) adolescent students** with respect to their **level of depression**.
- iv) To study the **difference** between **adolescent boys and girls** studying in different mediums of instruction with respect to their **level of peer-interaction motivation**.
- v) To study the **difference** between **adolescent boys and girls** studying in different mediums of instruction with respect to their **level of anxiety**.

- vi) To study the **difference** between **adolescent boys and girls** studying in different mediums of instruction with respect to their **level of depression**.
- vii) To study the **relation** between **level of peer interaction motivation** and **level of anxiety** of adolescent students.
- viii) To study the **relation** between **level of peer interaction motivation** and **level of depression** of adolescent students.
- ix) To study the **relation** between **level of peer interaction motivation** and **achievement** of adolescent students.

SAMPLING PROCEDURE AND METHODOLOGY:

A purposive sample of adolescent boys and girls within the age group of 14-16 years studying in English and Bengali (mother tongue) medium schools, located in North Bengal(N.B.) and South Bengal (S.B.) has been included in the present study. It is true, in Purposive Sampling the researcher never knows whether the cases selected represent the population. However, Purposive sampling is appropriate to select the unique cases that are especially informative to fulfill the objectives of the study. Basically analytical survey method has been used.

SAMPLING DISTRIBUTION:**TESTS/TOOLS FOR SUBJECTIVE MEASUREMENTS:****State anxiety inventory (STAI):**

It was developed by Spielberger and others (1970). It is a questionnaire composed of 20 items that assess "State Anxiety" and a further 20 items that evaluate "Trait Anxiety".

Beck depression inventory (Beck and others, 1961):

The Beck Depression Inventory (BDI), sometimes called Self-report Inventory, contains questionnaires which mainly concentrate on the cognitive distortions that emphasize depression. There are a total of 21 items in this self-report instrument with each item having a total of 4-point Likert scale. This questionnaire quantifies a range of depressive symptoms which include moods, pessimism, self-dislike social withdrawal and work difficulties.

Peer-interaction motivation scale:

The researcher could not find a ready-made scale. Therefore the test has been constructed by the investigator so as to fit the unique character of people of the region under study.

- The items of the questionnaire for the measurement of Peer Interaction Motivation have been distributed among the three areas as given below.
 1. Peer interaction motivation mostly related to classroom environment.
 2. Peer interaction motivation mostly related to outside the classroom environment (within the school campus)
 3. Peer interaction motivation related to environment outside the campus.

Academic Achievement: The data has been collected from institutional records.

At the time of collecting data ETHICAL ISSUES has been taken care of.

SCOPE AND DELIMITATIONS:

There is a huge scope for conducting this type of study with the adolescent students. But, considering the feasibility, availability of data and co-operation needed from the institutions it is necessary to delimit the study.

The study is delimited under the following areas:

Geographical Area:

This type of study could be conducted on all the educational institutions. However, considering the availability of Institutions and objectives of the study and available time it is decided to conduct the study in adjacent areas (rural and urban) of Darjeeling District and Kolkata district of West Bengal.

Age group of the Adolescent:

Roughly we can divide the period of adolescence into three stages, namely, early adolescence, middle adolescence and late adolescence. Early adolescence is a contradictory phase (12-14 years). Middle Adolescence (14-16 years) is the phase, when a child is on the road to transformation. There are a whole lot of changes that occur, be it, physical, mental, cognitive, or sexual. Late Adolescence (16-19 years) is closer to adulthood.

In this study Middle Adolescence (14-16 years) group has been included.

Psychological components:

This type of study could be conducted on different Psychological Constructs of an individual adolescent. However, considering the time budget four psychological constructs were selected- namely, Peer Interaction motivation, Anxiety, Depression and Achievement.

In order to get a holistic picture of the outcome of the research work we have presented the results in a tabular form.

RESULTS:

Table 1: Results obtained in relation to objective 1

Objective	Observations	Level of significance	General Interpretation
No.1	Result 1: Adolescents from Bengali medium school(located in rural area of North Bengal differ from Adolescents from English medium school(located in rural area of North Bengal) with respect to Peer Interaction Scores for Adolescents.	0.05	Adolescents from Bengali medium schools seem to interact better with the peers.(They indicate higher Mean values in two cases and equal value in other two cases)
	Result 2: Adolescents from Bengali medium school(located in urban area of North Bengal do not differ from Adolescents from English medium school(located in urban area of North Bengal) with respect to Peer Interaction Scores .	N.S.	
	Result 3: Adolescents from Bengali medium school(located in rural area of South Bengal do not differ from Adolescents from English medium school(located in rural area of South Bengal) with respect to Peer Interaction Scores .	N.S.	
	Result 4: Adolescents from Bengali medium school(located in urban area of South Bengal differ from Adolescents from English medium school(located in urban area of South Bengal) with respect to Peer Interaction Scores .	0.01	

Table 2: Results obtained in relation to objective 2 (STAI-I)

Objective	Observations	Level of significance	General Interpretation
No.2 (Anxiety-STAI-I)	Result 5: Adolescents from Bengali medium school(located in rural area of North Bengal differ from Adolescents from English medium school(located in rural area of North Bengal) with respect to Anxiety(STAI-I) .	0.01	So far as State Anxiety is concerned no preference has been noted. In one English Medium school the State Anxiety score(STAI-I) seems to be high.
	Result 6: Adolescents from Bengali medium school(located in urban area of North Bengal do not differ from Adolescents from English medium school(located in urban area of North Bengal) with respect to Anxiety(STAI-I) .	N.S.	
	Result 7: Adolescents from Bengali medium school(located in rural area of South Bengal) differ from Adolescents from English medium school(located in rural area of South Bengal) with respect to Anxiety(STAI-I) .	0.05	
	Result 8: Adolescents from Bengali medium school(located in urban area of South Bengal do not differ from Adolescents from English medium school(located in urban area of South Bengal) with respect to Anxiety (STAI-I) .	N.S.	

Table 3: Results obtained in relation to objective 2(STAI-II)

Objective	Observations	Level of significance	General Interpretation
No.2 (Anxiety-STAI-II)	Result 9: Adolescents from Bengali medium school(located in rural area of North Bengal differ from Adolescents from English medium school(located in rural area of North Bengal) with respect to Anxiety(STAI-II) .	0.05	So far as Trait Anxiety is concerned no preference has been noted. In one Bengali Medium school the Trait Anxiety score(STAI-II) seems to be high.
	Result 10: Adolescents from Bengali medium school(located in urban area of North Bengal do not differ from Adolescents from English medium school(located in urban area of North Bengal) with respect to Anxiety(STAI-II)	N.S.	
	Result 11: Adolescents from Bengali medium school(located in rural area of South Bengal) differ from Adolescents from English medium school(located in rural area of South Bengal) with respect to Anxiety (STAI-II) .	0.01	
	Result 12: Adolescents from Bengali medium school(located in urban area of South Bengal) do not differ from Adolescents from English medium school(located in urban area of South Bengal) with respect to Anxiety(STAI-II)	N.S.	

Table 4: Results obtained in relation to objective 3

Objective	Observations	Level of significance	General Interpretation
No.3	Result 13 : Adolescents from Bengali medium school(located in rural area of North Bengal differ from Adolescents from English medium school(located in rural area of North Bengal) with respect to Depression .	0.01	The Depression seems to be higher in English medium schools(by virtue of having higher Mean Value)
	Result 14 : Adolescents from Bengali medium school(located in urban area of North Bengal do not differ from Adolescents from English medium school(located in urban area of North Bengal) with respect to Depression .	N.S.	
	Result 15: Adolescents from Bengali medium school (located in rural area of South Bengal) differ from Adolescents from English medium school (located in rural area of South Bengal) with respect to Depression.	0.01	
	Result 16: Adolescents from Bengali medium school (located in urban area of South Bengal) barely differ from Adolescents from English medium school (located in urban area of South Bengal) with respect to Depression.	0.05	

Table 5: Results obtained in relation to objective 4

Objective	Observations	Level of significance	General Interpretation
No.4	Result 17: Adolescent Boys from Bengali medium school of North Bengal differ from Adolescent Girls from Bengali medium school of North Bengal with respect to Peer Interaction .	0.01	Girls seem to have better peer interaction. They indicate higher Mean values in two cases and equal value in two other cases.
	Result 18: Adolescent Boys from English medium school of North Bengal do not differ from Adolescent Girls from English medium school of North Bengal with respect to Peer Interaction .	N.S.	
	Result 19: Adolescent Boys from Bengali medium school of South Bengal differ from Adolescent Girls from Bengali medium school of South Bengal with respect to Peer Interaction .	0.05	
	Result 20: Adolescent Boys from English medium school of South Bengal do not differ from Adolescent Girls from English medium school of South Bengal with respect to Peer Interaction .	N.S.	

Table 6: Results obtained in relation to objective 5(STAI-I)

Objective	Observations	Level of significance	General Interpretation
No.5 (STAI-I)	Result 21: Adolescent Boys from Bengali medium school of North Bengal differ from Adolescent Girls from Bengali medium school of North Bengal with respect to Anxiety (STAI-I)	0.05	Boys and girls seem not to differ significantly with State Anxiety(STAI-I)
	Result 22: Adolescent Boys from English medium school of North Bengal do not differ from Adolescent Girls from English medium school of North Bengal with respect to Anxiety (STAI-I)	N.S.	
	Result 23: Adolescent Boys from Bengali medium school of South Bengal do not differ from Adolescent Girls from Bengali medium school of South Bengal with respect to Anxiety (STAI-I)	N.S.	
	Result 24: Adolescent Boys from English medium school(South Bengal)do not differ from Adolescent Girls from English medium school(South Bengal) with respect to Anxiety (STAI-I)	N.S.	

Table 7: Results obtained in relation to objective 5(STAI-II)

Objective	Observations	Level of significance	General Interpretation
No.5 (STAI-II)	Result 25: Adolescent Boys from Bengali medium school of North Bengal do not differ from Adolescent Girls from Bengali medium school of North Bengal with respect to Anxiety (STAI-II)	N.S.	Boys and girls seem not to differ significantly with Trait Anxiety(STAI-II)
	Result 26: Adolescent Boys from English medium school of North Bengal do not differ from Adolescent Girls from English medium school of North Bengal with respect to Anxiety (STAI-II)	N.S.	
	Result 27: Adolescent Boys from Bengali medium school of South Bengal do not differ from Adolescent Girls from Bengali medium school of South Bengal with respect to Anxiety (STAI-II)	N.S.	
	Result 28: Adolescent Boys from English medium school of South Bengal do not differ from Adolescent Girls from English medium school of South Bengal with respect to Anxiety (STAI-II)	N.S.	

Table 8: Results obtained in relation to objective 6

Objective	Observations	Level of significance	General Interpretation
No.6	Result 29: Adolescent Boys from Bengali medium school of North Bengal do not differ from Adolescent Girls from Bengali medium school of North Bengal with respect to Depression .	N.S.	With respect to Depression , Boys and Girls do not differ much. Only in one case Boys of Bengali Medium indicated higher Depression Mean.
	Result 30: Adolescent Boys from English medium school of North Bengal do not differ from Adolescent Girls from English medium school of North Bengal with respect to Depression .	N.S.	
	Result 31: Adolescent Boys from Bengali medium school of South Bengal differ from Adolescent Girls from Bengali medium school of South Bengal with respect to Depression .	0.01	
	Result 32: Adolescent Boys from English medium school of South Bengal do not differ from Adolescent Girls from English medium school of South Bengal with respect to Depression .	N.S.	

Table 9 : Results obtained in relation to objective 7 (STAI-I)

Objective	Observations	Level of significance	General Interpretation
No.7 (STAI-I)	Result 33: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of Bengali students of the rural area of North Bengal are significantly correlated.	0.05	The correlation between Peer Interaction Motivation and STAI-I cannot be concluded to be significant on the basis of available observations. Because, in most the cases the correlation has been found to be insignificant or poorly significant.
	Result 34: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of Bengali students of the urban area of North Bengal are not significantly correlated	N.S.	
	Result 35: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of English students of the rural area of North Bengal are significantly correlated.	0.01	
	Result 36: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of English students of the urban area of North Bengal are not significantly correlated.	N.S.	
	Continued.....		

Result 37: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of Bengali students of the rural area of South Bengal are not significantly correlated	N.S.	
Result 38: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of Bengali students of the urban area of South Bengal are significantly correlated.	0.05	
Result 39: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of English students of the rural area of South Bengal are not significantly correlated.	N.S.	
Result 40: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-I) of the students of English students of the urban area of South Bengal are not significantly correlated.	N.S.	

Table 10: Results obtained in relation to objective 7(STAI-II)

Objective	Observations	Level of significance	General Interpretation
No.7 (STAI-II)	Result 41: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of the students of Bengali students of the rural area of North Bengal are not significantly correlated.	N.S.	The correlation between Peer Interaction Motivation and STAI-II cannot be concluded to be significant on the basis of available observations. Because, in most the cases the correlation has been found to be insignificant or poorly significant.
	Result 42: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of the students of Bengali students of the urban area of North Bengal are not significantly correlated.	N.S.	
	Result 43: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of the students of English students of the rural area of North Bengal are significantly correlated.	0.05	
	Result 44: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of the students of English students of the urban area of North Bengal are not significantly correlated Continued.....	N.S.	

<p>Result 45: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of the students of Bengali students of the rural area of South Bengal are not significantly correlated.</p>	N.S.	
<p>Result 46: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of of Bengali students of the urban area of South Bengal are significantly correlated.</p>	0.05	
<p>Result 47: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of English students of the rural area of South Bengal are not significantly correlated.</p>	N.S.	
<p>Result 48: Scores of Peer Interaction Motivation and Scores of Anxiety (STAI-II) of English students of the urban area of South Bengal are not significantly correlated.</p>	N.S.	

Table 11 : Results obtained in relation to objective 8

Objective	Observations	Level of significance	General Interpretation
No.8	Result 49: Scores of Peer Interaction Motivation and Scores of Depression of the students of Bengali students of the rural area of North Bengal are not significantly correlated.	N.S.	The correlation between Peer Interaction and Depression cannot be concluded to be significant on the basis of available observations. Only in one situation the correlation has been found to be significant.
	Result 50: Scores of Peer Interaction Motivation and Scores of Depression of the students of Bengali students of the urban area of North Bengal are not significantly correlated.	N.S.	
	Result 51: Scores of Peer Interaction Motivation and Scores of Depression of the students of English students of the rural area of North Bengal are not significantly correlated.	N.S.	
	Result 52: Scores of Peer Interaction Motivation and Scores of Depression of the students of English students of the urban area of North Bengal are not significantly correlated.	N.S.	
	Contd.....		

	<p>Result 53: Scores of Peer Interaction Motivation and Scores of Depression of the students of Bengali students of the rural area of South Bengal are not significantly correlated.</p>	N.S.	
	<p>Result 54: Scores of Peer Interaction Motivation and Scores of Depression of the students of Bengali students of the urban area of South Bengal are significantly correlated.</p>	0.01	
	<p>Result 55: Scores of Peer Interaction Motivation and Scores of Depression of the students of English students of the rural area of South Bengal are not significantly correlated.</p>	N.S.	
	<p>Result 56: Scores of Peer Interaction Motivation and Scores of Depression of the students of English students of the urban area of South Bengal are not significantly correlated.</p>	N.S.	

Table 12: Results obtained in relation to objective 9

Objective	Observations	Level of significance	General Interpretation
No.9	Result 57: Scores of Peer Interaction Motivation and Scores of Achievement of the students of Bengali students of the rural area of North Bengal are not significantly correlated.	N.S.	The correlation between Peer Interaction and Achievement cannot be concluded to be significant on the basis of available observations. Only in one situation the correlation has been found to be significant.
	Result 58: Scores of Peer Interaction Motivation and Scores of Achievement of the students of Bengali students of the urban area of North Bengal are not significantly correlated.	N.S.	
	Result 59: Scores of Peer Interaction Motivation and Scores of Achievement of the students of English students of the rural area of North Bengal are not significantly correlated.	N.S.	
	Result 60: Scores of Peer Interaction Motivation and Scores of Achievement of the students of English students of the urban area of North Bengal are not significantly correlated. Contd.....	N.S.	

Result 61: Scores of Peer Interaction Motivation and Scores of Achievement of the students of Bengali students of the rural area of South Bengal are not significantly correlated.	N.S.	
Result 62: Scores of Peer Interaction Motivation and Scores of Achievement of the students of Bengali students of the urban area of South Bengal are significantly correlated.	0.01	
Result 63: Scores of Peer Interaction Motivation and Scores of Achievement of English students of the rural area of South Bengal are not significantly correlated.	N.S.	
Result 64: Scores of Peer Interaction Motivation and Scores of Achievement of English students of the urban area of South Bengal are not significantly correlated.	N.S.	

CONCLUSION

From the previous section on data interpretation we can now summarize the basic results of this work. Those are given below.

- Adolescents from Bengali medium schools seem to interact better with the peers.(They indicate higher Mean values in two cases and equal value in other two cases)
- So far as State Anxiety is concerned no preference has been noted. In one English Medium school the State Anxiety score(STAI-I) seems to be high.
- So far as Trait Anxiety is concerned no preference has been noted. In one Bengali Medium school the Trait Anxiety score(STAI-II) seems to be high.
- The Depression seems to be higher in English medium schools(by virtue of having higher Mean Value).
- Girls seem to have better peer interaction. They indicate higher Mean values in two cases and equal value in two other cases.
- Boys and girls seem not to differ significantly with State Anxiety(STAI-I).
- Boys and girls seem not to differ significantly with Trait Anxiety(STAI-II).
- With respect to Depression, Boys and Girls do not differ much. Only in one case Boys of Bengali Medium indicated higher Depression Mean.
- The correlation between Peer Interaction Motivation and STAI-I cannot be concluded to be significant on the basis of available observations. Because, in most the cases the correlation has been found to be insignificant or poorly significant
- The correlation between Peer Interaction Motivation and STAI-II cannot be concluded to be significant on the basis of available observations. Because, in most the cases the correlation has been found to be insignificant or poorly significant.

- The correlation between Peer Interaction and Depression cannot be concluded to be significant on the basis of available observations. Only in one situation the correlation has been found to be significant
- The correlation between Peer Interaction and Achievement cannot be concluded to be significant on the basis of available observations. Only in one situation the correlation has been found to be significant.

The observations have again become counter intuitive. It is believed that Peer Interaction has positive effects upon achievement, anxiety and depression. It may help in decreasing anxiety and depression and thereby it may help in increasing achievement. Especially, this should hold good for the adolescents.

But here, from the observations no such significant effect of Peer Interaction has been noticed. This observation corroborates with the previous observation obtained by the author (during her Ph. D. work in Education; Mitra, 2017) in relation to the achievement of trainee teachers of the colleges of teacher Education.

The investigator is reluctant to draw a quick conclusion in relation to Peer Interaction. Rather she feels that Peer Interaction is a very complicated social phenomenon having still more complicated interaction with the individual. There may be several factors competing with each other.

While the general conclusions drawn in the above may help teachers, guardians and counsellors, the confusion with peer-interaction may encourage the researchers to go into more exhaustive and intensive study in the area with the objective of discovering the factors involved and the associated interactions among those factors.