

# Effect of Parental Education on the Intrinsic Motivation of Higher Secondary Students of Contai Subdivision, East Medinipur of West Bengal

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**Abstract:** A comprehensive study on the effects of parental education on students intrinsic motivation in education in higher secondary level. Parents are parameterized in two category, mainly graduate and non graduate. On the basis of intrinsic motivation inventory the study is carried on the students of three Bengali medium school of Contai sub-division, East Medinipur, West Bengal. Seven different null hypothesis are tested in statistical method. It is found that five null hypothesis are accepted, and two null hypothesis is rejected. Importance of parental education on the intrinsic motivation of students in education is reflected very necessary. It is also found that very high and very low parental education has adverse effect on students intrinsic motivation in education.

**Keywords:** Intrinsic motivation, parental education, reflection, higher secondary education, intrinsic motivation inventory

## 1. Introduction

The word education has a very wide connotation and it is difficult to give its precise definition. A Biologist, a Priest, a Psychologist, a Philosopher, a Statesman, a Teacher, a Merchant, a Shopkeeper, and even an artisan – all of them supposed to be having intelligence – will give widely different definitions. These definitions whether naive or serious- determined by their own outlook on life, developed through training they had and the circumstances they were in, instead of being contradictory are complementary to one at the other. Education is an indispensable element of human existence. It is a special effort as well as special achievement of man. Education is not only a term or concept. Man gradually started forming societies for satisfying his social and psychological needs. He started acquiring knowledge about the various aspects of leading a happy life. He started giving proper attention to his materialistic needs, proper expression and communication of his feeling and desires, development of his mental capacities and abilities. According to Vivekananda “Education is the manifestation of perfection already in man.”

Parents brought up their children, parent influence has strong effect on the education attainments of students. Parental education helps on higher secondary students to create intrinsic motivation. Intrinsic motivation is an essential element in learning of higher secondary students.

## 2. Objective of the Study

A problem should be studied with some objectives. A researcher should know the objectives of her research. Hence the objectives of the study can be more explicitly presented as-

- 1) To study the effect of total high and total low parental education on the intrinsic motivation of higher secondary students in Contai Subdivision.

- 2) To study the effect of high and low parental education on the intrinsic motivation of Higher Secondary girls in Contai Subdivision.
- 3) To study the effect of high parental education and low parental education on the intrinsic motivation of higher secondary boys in Contai Subdivision.
- 4) To study the effect of high parental education of Higher Secondary boys and girls on their intrinsic motivation in Contai Subdivision.
- 5) To study the effect of low parental education of Higher Secondary boys and girls on their intrinsic motivation in Contai Subdivision.

## 3. Formulation of the Hypothesis

Hypotheses are not ends in themselves, rather they are means by which the investigator can understand the problem with greater clarity and ramification, as well as the data which bear on it. It acts as a framework for the conclusion and permits the collection of relevant data and that makes possible the interpretation of these data in the light of potential solution.

**The following Hypotheses are -**

**H<sub>1</sub>** - There exist significance difference between the intrinsic motivation of higher secondary students having high parental education and low parental education

**H<sub>2</sub>** - There exist significance difference between the intrinsic motivation of higher secondary girls having high parental education and higher secondary girls having low parental education.

**H<sub>3</sub>** - There exist significant difference between the intrinsic motivation of higher secondary boys having high parental education and higher secondary boys having low parental education.

**H<sub>4</sub>** - There exist significant difference between the intrinsic motivation of higher secondary boys having high parental education and higher secondary girls having high parental education.

**H<sub>5</sub>** - There exist significant difference between the intrinsic motivation of higher secondary boys having low parental education and higher secondary girls having low parental education.

**H<sub>6</sub>** - There exist significant difference between the intrinsic motivation of higher secondary boys having high parental education and higher secondary girls having low parental education.

**H<sub>7</sub>** - There exist significant difference between the intrinsic motivation of higher secondary girls having high parental education and higher secondary boys having low parental education.

**The following null hypothesis are-**

**H<sub>O1</sub>** - There exist no significance difference between the intrinsic motivation of higher secondary students having high parental education and low parental education .

**H<sub>O2</sub>** - There exist no significance difference between the intrinsic motivation of higher secondary girls having high parental education and higher secondary girls having low parental education.

**H<sub>O3</sub>** - There exist no significant difference between the intrinsic motivation of higher secondary boys having high parental education and higher secondary boys having low parental education.

**H<sub>O4</sub>** - There exist no significant difference between the intrinsic motivation of higher secondary boys having high parental education and higher secondary girls having high parental education.

**H<sub>O5</sub>** - There exist no significant difference between the intrinsic motivation of higher secondary boys having low parental education and higher secondary girls having low parental education.

**H<sub>O6</sub>** - There exist no significant difference between the intrinsic motivation of higher secondary boys having high parental education and higher secondary girls having low parental education.

**H<sub>O7</sub>** - There exist no significant difference between the intrinsic motivation of higher secondary girls having high parental education and higher secondary boys having low parental education.

**4. Methodology of the Study**

**4.1 Method**

Survey method of Descriptive research has been followed in the study.

**4.2 Population**

The universe of present investigation is the higher secondary school of Contai sub-division. The whole sample is collected from xi and xii students of three selected Bengali medium school of Contai sub- division.

**Table 1:** Total number of students studying in xi and xii class of selected schools

No.	Name of School	Boys	Girls	Total
1	Chak-Rasul I.N. Siksha Niketan	35	24	59
2	Sarpai Model Institution	37	28	65
3	Kayemgeria D.M. High School	47	29	76

**4.3 Tools and techniques**

For the measurement of the effect of parental education on the intrinsic motivation of higher secondary students . I select Deci and Ryan’s (1985, 2000) tool for this study. This investigator has used a Bengali translated version of the Intrinsic Motivation Inventory (IMI) which has been translated and standardized by Roy (2008) constructed by Deci and Ryan (1985). This is a multidimensional flexible tool that determines subjects’ level of intrinsic motivation with the help of interest/enjoyment, perceived competence, effort, value/ usefulness, felt pressure and tension, and perceived choice . The present Bengali adapted version of the IMI contains 52 items, both positive and negative .

**Scoring Principle**

The Bengali version of the IMI is a 52-item, 3 point Likert-type tool with three response alternatives. The three alternatives are supposed to stand on three points of a psychological continuum expressing subjects’ normal behavior with regard to intrinsic motivation underpinned by a specific item stated in a form of brief statement. The response alternatives are labeled as „Agree“, „Undecided“, and „Disagree“ and the assigned weights are „3“, „2“, and „1“ respectively.

**Reliability Studies**

Internal consistency and stability of the IMI are given below.

**Internal Consistency (Cronbach’s Alpha)**

Internal consistency of the sub-scale has been determined by the various researchers. The obtained Cronbach’s alpha of the sub-scales are in Table-2

**Table 2:** Cronbach’s *a* s for each Dimension of the (Bengali) IMI

Interest/ Enjoyment	Perceived competence.	Effort/ Importance.	Pressure/ Tension	Perceived. Choice	Value/ Usefulness	Relatedness.	Researchers
0.78	0.80	0.84	0.68	-	-	-	McAuley et al., 1989
0.97	-	0.91	-	-	0.69	-	Foreman, 2005
0.91	0.82	0.80	0.88	-	-	-	Wiechman, 2007
0.87	0.89	0.84	0.88	0.86	0.88	0.86	Roy, 2008

The alpha values shown above are highly satisfactory indicating internal consistency of the sub scales of the IMI

**Stability (Test-retest Reliability)** The reliability coefficient of the IMI determined by Roy (2008) with the help of test-retest method is being shown in Table-3

**Table 3:** Test-Retest Reliability Coefficient of IMI [N = 95, Interval = 4 Weeks]

Interest/ Enjoyment	Perceived competence.	Effort/ Importance.	Pressure/ Tension	Perceived. Choice	Value/ Usefulness	Relatedness.	Researchers
0.79	0.86	0.80	0.82	0.78	0.81	0.78	Roy, 2008

The values of test-retest are high enough and significant to ensure satisfactory stability of each dimension of the test.

#### 4.4 Procedure of Data Collection

Based on hypothesis on selected topic, data were generated via self-completion questionnaire use of Deci and Ryan's (1985, 2000) tool, of the elected school during the period from 03/05/2015 to 15/05/2015. After the data collection each of the tools was scored as per as respected guideline and the statistical test performed included analysis of frequencies, mean score, t-test. All finding reported were statistically significant to at least 0.01 and 0.05 level.

#### Analysis and interpretation of data:

Analysis of data is a process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions and supporting decision making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, in different business, science and social science domains.

Data analysis is a process, within which several phases can be distinguished. Statistical data analysis divides the methods for analyzing data into two categories: exploratory methods and confirmatory methods. Exploratory methods are used to discover that the data seems to be saying by using simple arithmetic and easy-to-draw pictures to summarize data. Confirmatory methods use ideas from probability theory in the attempt to answer specific questions. Probability is important in decision making because it provides a mechanism for measuring, expressing, and analyzing the uncertainties associated with future events.

A p-value is a measure of how much evidence you have. One may combine the p-value with the significance level to make decision on a given test of hypothesis.

For testing normality Skewness and Kurtosis have been measured. The results show nearly normal (Skewness-.089 and Kurtosis-.312). Therefore, for analysis of the data the investigator has used t-test for significance of the results. The analysis is given below according to the hypothesis

**Table 4:** Two sample t-test high parental education vs. low parental education

Parental education	No. of data	Mean	Standard deviation	t value	P value
High parental education	100	128.2	20.2	12.06	0.000
Low parental education	100	95.5	17.9		
<b>df =195</b>					

**H<sub>1</sub>** - From table- 4 it is observed that mean score of higher secondary students having high parental education is found

to be 128.0. while mean score of higher secondary students having low parental education is found to be 95.5 and standard Deviation between these two were found to be 20.2 and 17.9 respectively. T-value was 12.06 which is significant at 0.01 and 0.05 levels for degree of freedom 195 i.e the null hypothesis is rejected. Therefore the alternative hypothesis is accepted i.e. there is significant difference in the intrinsic motivation level of higher secondary students having high parental education and low parental education. **Hence the hypothesis H<sub>1</sub> is accepted.**

**Table 5:** Two sample t-test for girls high parental education vs girls low parental education

Parental education	No. of data	Mean	Standard deviation	t value	P value
High parental education (girls)	39	126.0	23.3	6.47	0.000
Low parental education(girls)	42	96.7	16.6		
<b>df =68</b>					

**H<sub>2</sub>** -From table- 5 it is observed that mean score of higher secondary girls having high parental education is found to be 126.0. While mean score of higher secondary girl student having parental education is found to be 96.7 and standard deviation between these two were found to be 23.3 and 16.6 respectively. T value between there two was 6.47 significant at 0.01 and 0.05 level for degree of freedom 68. i.e. is the null hypothesis is rejected. Therefore the alternative hypothesis is accepted i.e. there is significant difference in the intrinsic motivation level of girl higher secondary students having high parental education and girl higher secondary students having low parental education. **Hence the hypothesis H<sub>2</sub> is accepted.**

**Table 6:** Two sample t-test for boys high parental education vs. boys low parental education

Parental education	No. of data	Mean	Standard deviation	t value	P value
High parental education (boys)	62	128.8	18.3	9.99	0.000
Low parental education(boys)	57	94.6	19.0		
<b>df = 115</b>					

**H<sub>3</sub>** From table -6 it is observed that mean score of higher secondary boy students having high parental education is found to be 128.8. While mean score of higher secondary boy students having low parental education is found to be 94.6 and standard deviation between these two were found to be 18.3 and 19.0 respectively. T- value between there two was 9.99 significant at 0.01 and 0.05 level for degree of freedom 115 i.e. the null hypotheses is rejected. Therefore the alternative hypotheses is accepted i.e. there is significant difference in the intrinsic motivation level of boy higher secondary students having high parental education and boy higher secondary students having low parental education. **Hence the hypothesis H<sub>3</sub> is accepted.**

**Table 7:** Two sample t-test for boys high parental education vs girls high parental education

Parental education	No. of data	Mean	Standard deviation	t value	P value
High parental education (boys)	62	128.8	18.3	0.63	0.532
High parental education (girls)	39	126.0	23.3		
<b>df=66</b>					

**H<sub>4</sub>** - From table-7 it is observed that mean score of higher secondary boys having parental education is found to be 128.8 . While mean score of higher secondary girl students having high parental education is found to be 126.0 and standard deviation between these two were found to be 18.3 and 23.3 respectively . T- value between there two was 0.63 insignificant at 0.01 and 0.05 level for degree of freedom 66 i.e. the null hypothesis is accepted . Therefore the alternative hypothesis is rejected i.e. there is no significant difference in the intrinsic motivation level of boy higher secondary students having high parental education and girl higher secondary students having high parental education . **Hence the hypothesis H<sub>4</sub> is rejected.**

**Table 8:** Two sample T test for boys low parental education vs girl low parental education.

Parental education	No. of data.	Mean	Standard deviation	t value	P value
Low parental education (boys)	57	94.6	19.0	0.61	0.546
Low parental education (girls)	42	96.7	16.6		
<b>df =94</b>					

**H<sub>5</sub>** -From table-8 it is observed that mean score of higher secondary boy students having low parental education is found to be 94.6 . While mean score of higher secondary girl students having low parental education is found to be 96.7 and standard deviation between these two were found to be 19.0 and 16.6 respectively . T value between there two was 0.61 insignificant at 0.01 and 0.05 level for degree of freedom 94 i.e. the null hypothesis is accepted . Therefore the alternative hypothesis is rejected i.e. there is no significant difference in the intrinsic motivation level of higher secondary boys having low parental education and higher secondary girls having low parental education. **Hence the hypothesis H<sub>5</sub> is rejected.**

**Table 9:** Two sample t-test for boys high parental education vs girl low parental education.

Parental education	No. of data	Mean	Standard deviation	t value	P value
High parental education(boys)	62	128.8	18.3	9.27	0.000
Low parental education(girls)	42	96.7	16.6		
<b>df = 93</b>					

**H<sub>6</sub>** -From table-9 it is observed that mean score of higher secondary boy students having high parental education is found to be 128.8 . While mean score of higher secondary girl students low parental education is found two be 96.7 and standard deviation between these two were found to be 18.3 and 16.6 respectively . T- value between there two was 9.27

significant at 0.01 and 0.05 level for degree of freedom 93 i.e. the null hypothesis is rejected i.e. there is significant difference in the intrinsic motivation level of higher secondary students boys having high parental education and higher secondary girls having low parental education. **Hence the hypothesis H<sub>6</sub> is accepted .**

**Table 10:** Two sample t-test for girls high parental education vs boys low parental education.

Parental education	No. of data	Mean	Standard deviation	t value	P value
High Parental education (girls)	39	126.0	23.3	6.98	0.000
Low Parental education (boys)	57	94.6	19.0		
<b>df = 70</b>					

**H<sub>7</sub>**. From table-10 it is observed that mean score of higher secondary girl students having high parental education is found to be 126.0 .While mean score of higher secondary boy students having low parental education is found to be 94.6 and standard deviation between these two were found to be 23.3 and 19.0 respectively . T- value between there two was 6.98 significant at 0.01 and 0.05 level for degree of freedom 70 i.e. the null hypothesis is rejected . Therefore the alternative hypothesis is accepted i.e. there is significant difference in the intrinsic motivation level of higher secondary girls having high parental education and higher secondary boys having low parental education . **Hence the hypothesis H<sub>7</sub> is accepted .**

## 5. Discussion and Conclusion

A present study examined effect of parental education on the intrinsic motivation of higher secondary students reflection in their professional development activities. Across all of the data discussed above, improving parental performance, professional development growth, appear to be the most important determinates to the intrinsic motivation of higher secondary students. One of the most significant findings there exist significance difference between the intrinsic motivation of higher secondary students having high parental education and low parental education. Also important findings of parental education on the intrinsic motivation as a very useful tool that effects higher secondary students motivation. Lack of time, lack of parental knowledge, lack of teachers, lack of proper conducive environments, lack of students guidance as the most important obstacles for implementing.

Finally as an exploratory study in a field that is under research I suggest the following points for the parents.

1. Parents are the first teacher for the child, so parents should provide proper conducive environment for the development of their intrinsic motivation.
2. Parents should attend to the needs and desires of the child and if it is right they should try to fulfill it.
3. Parents should not compare their child negatively with others.
4. Parents should compare their child positively with others.
5. Parents should not be harsh in giving and kind of instructions to them.

6. The relationship between the child and the parents should be positive and jovial one.

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### APPENDIX- 1

#### INTRINSIC MOTIVATION INVENTORY

Name: Name of the school:

Class: Sex: Male/Female

Parental education qualification: Graduate/Non graduate

#### Instruction

This is a test of intrinsic motivation questioner there are 52 statements relating to this inventory. Any students answer own opinion and putting a tick mark (✓) against any one of the following three alternatives „surely true“, „undecided“, „surely false“ and the assigned weights are „3“, „2“, and „1“.

1	I enjoy the course	3	2	1
2	I enjoy the studying the course	3	2	1
3	I have interested in learning all paper that I have to study	3	2	1
4	Class lecture to be more	3	2	1
5	Attending school regularly gives me much enjoyment as I can learn more	3	2	1
6	Studying at library give me wonderful academic experience	3	2	1
7	I find joining the course is interesting	3	2	1
8	I think there is no other interesting place than my school	3	2	1
9	While I engage in studying I think about how much shall I enjoy from the course	3	2	1
10	Text books hold my attention at all	3	2	1
11	I think I am pretty good at my school	3	2	1
12	I think am pretty good in communication skill	3	2	1
13	Curriculum of my course will help me to be more competent in the subject	3	2	1
14	Knowledge that can I gather undergoing the course will give me to get a good college for undergraduate study	3	2	1
15	The course work will find me independent in life.	3	2	1
16	Studying in the course will help me academically proficient	3	2	1
17	I understand the course materials very well, compared to others.	3	2	1
18	I put a lot of effort into studying	3	2	1
19	I usually do not try to hard to get good grade	3	2	1
20	I put much emphasis on regular study	3	2	1
21	I never forget to undergo regular study	3	2	1
22	I am lazy at studying	3	2	1
23	I try my best to put my all energy to invest in studying	3	2	1
24	Good grade has a special meaning to me and I never think to get poor score in any subject at all	3	2	1
25	I put every effort and concentration to follow class lectures fully	3	2	1
26	Academic success is my mission of life	3	2	1

27	I never think, listening class lecture is important	3	2	1
28	I do not feel nervous while doing exam. preparation	3	2	1
29	I feel tensed while doing best in studying	3	2	1
30	I feel pressurized while completing daily assignment daily	3	2	1
31	I feel I have choice in undergoing learning	3	2	1
32	I undergo studying as I have no other choice	3	2	1
33	I do hard and I myself set my programmed	3	2	1
34	I enjoy my freedom in organizing my studying	3	2	1
35	I have no choice in learning, my teachers just control the matter	3	2	1
36	I have much choice in organizing my learning the subject	3	2	1
37	I think that I have some choice in joining the course and continuing it.	3	2	1
38	I join the course, as I wanted it	3	2	1
39	I believe studying the course real value	3	2	1
40	Studying the course will help me lot in future	3	2	1
41	I am confident that after completing the course I shall get lift in career	3	2	1
42	Studying the subject will give me valuable skills	3	2	1
43	Studying the course is just wastage of resources-time, money and energy	3	2	1
44	I hope I must learn useful skills to orient my life	3	2	1
45	The course will give me important information to learn and transfer them in new situation	3	2	1
46	Knowledge derived from the course will empower us much	3	2	1
47	I feel very close to my teachers	3	2	1
48	I enjoy group activities in the classroom	3	2	1
49	I feel alone in the classroom	3	2	1
50	I feel goal of the class teaching is at distant from my goal of learning	3	2	1
51	School is too formal without human concern for human beings	3	2	1
52	Teachers guide me intimately when I need	3	2	1

**Appendix-2**  
**Answer Table**

Dimensions	Number of Items		Total No. of Items
	Old Sl. No.	New Sl. No.	
1) Interest / Enjoyment	1,2,3,4,5,6,7,8,9,10.	1,2,3,4,5,6,7,8,9,10.	10
2) Perceived Competence	11,12,13,14,15,16,17.	11,12,13,14,15,16,17.	7
3) Effort/Importance	18,19,20,21,22,23,24,25,26,27.	18, <u>19</u> ,20,1, <u>22</u> ,23,24,25,26, <u>27</u> .	10
4) Pressure / Tension	<u>28</u> ,29,30.	28, <u>29</u> ,30.	3
5) Perceived Choice	<u>31</u> ,32,33,34,35,36,37,38.	31, <u>32</u> ,33,34,35,36,37,38.	8
6) Value / Usefulness	39,40,41,42,43,44,45, <u>46</u> .	39,40,41,42,43,44, <u>45</u> ,46.	8
7) Relatedness	47,48,49, <u>50</u> ,51,52.	47,48,49, <u>50</u> ,51,52.	6
Total 52			

**N.B.:** Underlined Items are keyed the Negative Items.