

A Comparative Study of Academic Achievement Between the Boys and Girls: Special Reference to Gir-Somnath District

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Abstract - This research attempts to discover the difference between Girls and Boys Academic performance at graduate level. Moreover, it is equally important to identify the critical success factors (CSF) that leads to achieving the Academic performance of the students more effectively. To analyze this phenomenon the researcher Sampled 50 Boys students and 50 Girls Students across the colleges of Gir-Somanath District. Enrolled Students list of UG Colleges was taken as the Sampling frame. Selection of the sample was done by using Non-probability Convenience Sampling technique. The data was collected through a structured questionnaire and was analyzed by using SPSS and Excel to make it informative. Outcomes revealed that there is significant difference between the Academic Achievement of the Girls and Boys at Graduate level.

Keywords: Academic performance, Critical Success Factors (CSF).

I. INTRODUCTION

In this era of globalization education is considered as an initial step for every human activity. Education ensures the acquisition of knowledge and skills that enables individuals to increase their productivity and improve their quality of life. This increase in productivity also leads to enhance the economic growth of a country. The quality of students' performance remains at top priority for educators. Educators, trainers, and researchers have long been interested in exploring variables contributing effectively for quality of performance of learners. These variables are inside and outside school that affect students' quality of academic achievement.

Achieving this goal requires understanding of commitment to the proposition that education is a primary instrument for social and economic advancement of human welfare (Verma, 1990). The nature of gender inequalities in education has changed profoundly over recent decades and, with regard to attainment in particular, has become more complex. Apart from the injustice inherent in all gender stereotyping, gender differences in education can also negatively affect economic growth and social inclusion.

II. LITERATURE REVIEW

Many researches have been conducted to contribute to determine the predictors of educational success of college students and to examine the gender difference in academic achievement. Aggarwal (1983) conducted a study on reading ability in relation to some cognitive and non-cognitive factors. The results of the study indicated that Girls students had better reading ability and higher academic achievement than Boys students.

Khare and Garewal (1996) conducted a study on home environment and academic achievement of elementary school children. The sample comprised of 212 students of middle schools of Bhopal. The results revealed a significant difference in academic achievement of boys and girls. Boys were found to have better academic achievement than girls.

Muller (1998) investigated gender differences in parental involvement and adolescents' mathematics achievement through a longitudinal study. The sample was taken from national longitudinal study of 13,881 students of class eighth to twelfth from the city Austin in Texas. The scores attained by the students in mathematics test were considered as academic achievement of the students. The findings indicated gender differences in academic achievement.

Devi and Mayuri (2003) carried out a study of family and school factors that affect the academic achievement of residential school children studying ninth and tenth classes on a sample of 120 students of Hyderabad city. Data were collected through an interview schedule developed by the investigator to study the family factors. The result indicated significant gender difference in academic achievement and girls were found to be superior to boys in academic achievement.

III. RESEARCH OBJECTIVES

Primary Objectives:

- ❖ To examine the difference between the academic achievement of boys and girls at graduation level.
- ❖ To identify the Critical Success Factor which leads to achieve the higher academic performance

Secondary Objectives:

- ❖ To examine the relevance of Academic performance with Fathers annual Income.
- ❖ To examine the relevance of Academic performance with the regularity of the students.
- ❖ To examine the relevance of Academic performance with active participation in co-curriculum activity.
- ❖ To examine the relevance of Academic performance with time spent to the study.

IV. RESEARCH METHODOLOGY

In this research, the researcher has collected primary data through questionnaire survey to achieve the specific objectives. Academic performance was taken as core variable to prove the research hypothesis. Students' preceding year result was taken as the parameter of measuring the academic performance. 50 Boys students and 50 Girls Students across the Graduation Colleges of Gir-Somanath District were sampled by Non-probability Convenience Sampling technique to infer the population parameter. Though non probability convenience sample has no controls to ensure precision, it is the most useful sampling method because it is the easiest and cheapest method to conduct a survey (Cooper, 2000). Statistical inference permits us to draw conclusions about a population parameter based on a sample that is quite small in comparison to the size of the population" (Keller, 2009, p.159). All collected data was computed and analyzed using the SPSS and Excel computer program.

V. RESEARCH HYPOTHESIS

Specially, this research investigate the following research hypothesis

Hypothesis I: There is no significant difference between the Academic performance of the Girls and Boys.

Hypothesis II: Students' academic performance is Independent to the Father's annual Income.

Hypothesis III: Students' academic performance is Independent to the participation in co-curricular activity.

Hypothesis IV: Students' academic performance is Independent to time spent on study excluding college time.

Hypothesis V: Students' academic performance is Independent to regularity in college lectures.

VI. DATA ANALYSIS & INTERPRETATION

- ❖ In the research, It was found that 49% Girls attain lectures regular compared to boys which is 36%. This implies that the Girls give more effort in Study.
- ❖ 46% Girls and 31% Boys have given assertive response to participating in Co-curricular activity
- ❖ In this study it is observed that 10% Boys are spent more than 4 Hrs in reading excluding college time whereas 9 % Girls are spent more than 4 Hrs.
- ❖ 49% Girls want to pursue their study in MBA and MCA course. Whereas, it is only 30% in case of Boys. It implies the difference between the gender perceptions of Students toward professional courses.
- ❖ 20% Boys Students and 26% Girls students want to do Private or Public job. 13% Boys Students and 4% Girls students want to do and develop their own family Business. 11% Boys Students and 8% Girls students want to establish new Business and see themselves as an Entrepreneur. 6% Boys Students and 12% Girls students want to pursue their career in Professional courses like CA, CS etc.
- ❖ 36% Girls and 22% Boys have got Distinction class in their latest exam result whereas 30% Girls and 22% Boys have got First class. There is 16% Girls and 12% Boys have got Backlog/ATKT in their previous exam. Thus, we can conclude that the Girls have significant higher Academic performance compared to the boys.

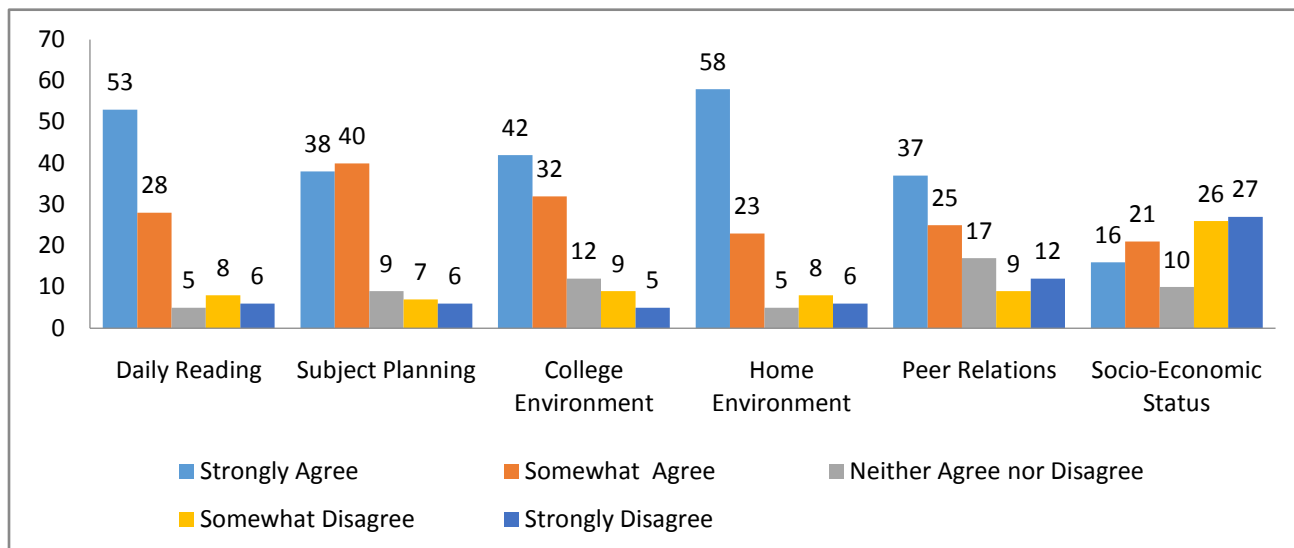
Critical Success Factors that leads to achieving Academic Performance

Critical Success Factors are an important variable which are very essentially to achieve the specific goal. For this research following variables are taken as CSF:

1. 1, Daily Reading
2. 2, Subject Planning
3. 3, College Environment
4. 4, Home Environment
5. 5, Peer Relations
6. 6, Socio-Economic Status

The feedbacks are taken from all the students. The analyzed data reflects that 58% students were Strongly agree who believe that Home Environment is the most Important Critical Success factor that leads to Achieving the higher Academic performance followed by Daily reading which is 53%.Forty two percentages Students are strongly agreed with

College Environment, 38% Students are strongly agreed with Subject Planning and 37% students are strongly agreed with Peer relationship. Nearly, 16% Students believe that Social Economic Factor is the most Important Critical Success Factor.



* Source:Primary data

Thus we conclude that Most of the Students give more weightage to Home Environment and Daily reading as a Critical Success Factors that leads to Achieving the higher Academic performance.

HYPOTHESIS TESTING

Hypothesis I:

Ho: There is no significant difference between the mean of the Academic performance of the Boys and Girls. ($\mu_1 - \mu_2 = 0$).

H1: There is significant difference between the Academic performance of the Boys and Girls. ($\mu_1 - \mu_2 \neq 0$).

The following table summarizes the Students latest result which was taken the variable for the Academic performance of the students.

Sr. No.	Boys %	Girls %	Sr. No.	Boys %	Girls %	Sr. No.	Boys %	Girls %	Sr. No.	Boys %	Girls %	Sr. No.	Boys %	Girls %
1	52	75	11	62	72	21	70	45	31	35	78	41	42	56
2	61	81	12	65	65	22	71	58	32	65	79	42	49	42
3	53	83	13	35	68	23	73	68	33	64	74	43	35	49
4	52	68	14	52	62	24	63	75	34	56	70	44	49	35
5	72	64	15	70	69	25	73	70	35	75	71	45	48	35
6	73	68	16	50	80	26	63	64	36	55	76	46	35	58
7	61	76	17	52	66	27	62	35	37	35	58	47	47	55
8	72	68	18	65	62	28	35	60	38	58	35	48	46	52
9	53	69	19	70	75	29	35	76	39	35	35	49	58	46
10	35	62	20	71	83	30	65	75	40	58	35	50	48	45

* Source :Primary data

The above data was processed through Microsoft Excel and output is presented in table given below. Two sample *t* test is used to test the significance difference between the two

sample mean. The conclusion is drawn at 5% level of significance.

<i>t</i> -Test: Two-Sample Assuming Equal Variances	Boys Result	Girls Result
	Variable 1	Variable 2
Mean	55.58	62.52
Variance	164.9016327	206.9485714
Observations	50	50
Pooled Variance	185.925102	
Hypothesized Mean Difference	0	
Df	98	
t Stat	-2.544839872	
P(T<=t) one-tail	0.006246714	
t Critical one-tail	1.660551217	
P(T<=t) two-tail	0.012493428	
t Critical two-tail	1.984467455	

* Excel output

At 5 % level of significance the Null hypothesis is rejected because calculated *t* value 2.544 exceeds to the Table value which is ± 1.67 . Thus, we conclude that there is significant difference between the Academic performance of the Boys and Girls.

Hypothesis II:

H₀: Students' academic performance is Independent to the Father's annual Income.

H₁: Students' academic performance is not Independent to the Father's annual Income.

Father's Annual Income * Latest Exam Result Crosstabulation

Count		Latest Exam Result					Total
		Backlog/ATKT	Pass Class	Second Class	First Class	Distinction	
→ Father's Annual Income	Less than 100000	5	8	11	10	13	47
	Between 100000-200000	8	2	5	9	12	36
	Between 200000-300000	1	3	2	5	1	12
	More than 300000	0	0	0	2	3	5
Total		14	13	18	26	29	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.817 ^a	12	.252
Likelihood Ratio	17.023	12	.149
N of Valid Cases	100		

*SPSS Output

At 5% level of significance Null Hypothesis fail to reject because the Chi Square table value 21.0261 is more than the calculated value, thus we may conclude

that Students' academic performance is Independent to the Father's annual Income.

Hypothesis III:

Ho: Students' academic performance is Independent to participation in co-curricular activity

H1: Students' academic performance is not Independent to participation in co-curricular activity

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Participation in Co Curricular Activity * Latest Exam Result	100	100.0%	0	.0%	100	100.0%

Participation in Co Curricular Activity * Latest Exam Result Crosstabulation

Count		Latest Exam Result					
		Backlog/ATKT	Pass Class	Second Class	First Class	Distinction	Total
Participation in Co Curricular Activity	Yes	9	8	12	23	25	77
	No	5	5	6	3	4	23
Total		14	13	18	26	29	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.435 ^a	4	.115
Likelihood Ratio	7.503	4	.112
N of Valid Cases	100		

***SPSS Output**

At 5% level of significance Null Hypothesis fail to reject because the Chi Square table value 9.4877 is more than the calculated value, thus we may conclude that Students' academic performance is Independent to the participation in Co-curricular activity.

Hypothesis IV:

Ho: Students' academic performance is Independent to time spend on study excluding college time

H1: Students' academic performance is not Independent to time spend on study excluding college time

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Time Spend on Study * Latest Exam Result	100	100.0%	0	.0%	100	100.0%

Time Spend on Study * Latest Exam Result Crosstabulation

Count		Latest Exam Result					
		Backlog/ATKT	Pass Class	Second Class	First Class	Distinction	Total
Time Spend on Study	1 - 2 Hrs	5	2	9	10	12	38
	2 - 3 Hrs	4	8	6	5	10	33
	3 - 4 Hrs	2	3	2	2	1	10
	More than 4 Hrs	3	0	1	9	6	19
Total		14	13	18	26	29	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.837 ^a	12	.093
Likelihood Ratio	21.175	12	.048
N of Valid Cases	100		

***SPSS Output**

At 5% level of significance Null Hypothesis fail to reject because the Chi Square table value 21.0261 is more than the calculated value, thus we may conclude that Students' academic performance is Independent to study excluding college time.

Hypothesis V:

Ho: Students' academic performance is Independent to regularity in college

Ha: Students' academic performance is not Independent to regularity in college

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Regularity * Latest Exam Result	100	100.0%	0	.0%	100	100.0%

Regularity * Latest Exam Result Crosstabulation

Count		Latest Exam Result					Total
		Backlog/ATKT	Pass Class	Second Class	First Class	Distinction	
Regularity	Yes	10	8	15	25	26	84
	No	4	5	3	1	3	16
Total		14	13	18	26	29	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.080 ^a	4	.039
Likelihood Ratio	9.871	4	.043
N of Valid Cases	100		

*SPSS Output

At 5% level of significance Null Hypothesis is rejected because the Chi Square table value 9.4877 is less than the calculated value, thus we may conclude that Students' academic performance is not Independent to the regularity of the students.

has the relationship with the Academic performance of the students.

VII. CONCLUSION

The main purpose of this paper is to examine the difference between Girls and Boys Academic achievement at graduation Level. Summering results obtained from the sample reflects that there is significance difference between Girls and Boys academic achievement. Most of the variables of the study are in favor of Girls and so we conclude that the Girls are more serious about their study and give more effort to achieving their Academic performance compared to boys. Most of the Students give more Weightage to Home Environment and Daily reading as a Critical Success Factor (CSF) that leads to Achieving their Academic performance. Moreover, It can be concluded that Students regularity in lectures is found as a variable which

VIII. LIMITATIONS AND FUTURE RESEARCH

Due to time and financial restriction, this research could study only the difference between the academic achievement of Boys students and Girls Students at Graduation Level. In future this research should be extended for other Students such as Post Graduation level to explore the difference between academic achievement due to the variation in Level of students that will help to draw a conclusion regarding the difference between the academic achievement of PG Students. Moreover, this research should extend to find out the remedies which will help to resolve or minimize this kind of gender difference.

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