

A Comparative Study of General Intelligence and Adjustment Amongst Degree College Students

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ABSTRACT

Intelligence is the mental abilities of a person to learn from experience, adapt to new situations, understand and handle abstract concepts and use knowledge to manipulate one's environment. And adjustment affects the various aspects of a person's life. The present study explores the mental ability/ general intelligence level and adjustment of degree college students. It also compares the mental ability/ general intelligence and the adjustment of students with regard to their gender, area and stream. Normative & descriptive survey methods have been used in this study.

For general intelligence and adjustment representative sample data was collected from 500 students through stratified random sampling technique from various degree colleges of Ujjain City. The sample included 100 male and 100 female students. The collected data was analyzed using Mean, S.D. and 'T' test.

The results of the study threw very interesting results. Whereas, No Significant difference noticed between male and female students on general intelligence scores, a significant difference was found in the home, health and emotional adjustment of college going male and female students. There is significant difference found in both, the general intelligence & adjustment of urban and rural college students. Whereas, urban college students showing higher score than their rural counterparts in general intelligence, however colleges going rural students were more adjusted in home, health, social and emotional area while urban students were more adjusted in educational area. In the case of streams, Science students show higher general intelligence than the arts students. On the other hand, no significant difference was found in all the five areas of adjustment of college going students of science and non-science stream.

Keywords: Mental Ability, General intelligence, Adjustment, Student, urban and rural, Male and Female, Streams.

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

INTRODUCTION

Human beings are bestowed with certain mental abilities which make them a rational being. They can reason, understand and adapt themselves to new situations. Human's, by using their mental power is superior to all other living beings but differences of mental powers do persist within human families. Some can grasp and learn quickly whereas others are slow in learning.

Human intelligence has been defined in various ways as a capacity for comprehension and reasoning. Stern (1914) defined intelligence as a general capacity of an individual consciously to adjust his thinking to new requirements. It is general mental adaptability to new problems and conditions of life. Wechsler (1944) defined intelligence as the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with his environment.

In general terms, intelligence is the ability to learn about, learn from, understand, and interact with one's environment.

Intelligence is a very general mental capability that, among other things, involves the ability of a person to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. General intelligence is a construct that includes problem solving abilities, spatial

manipulation and language acquisition.

The term adjustment refers to the process by which a living organism maintains a balance between its needs and the circumstances that influence the satisfaction of these needs. Influence of globalization, modernization, changing needs of the society and individuals and awareness is making the youth more and more ambitious and hence affecting their adjustment significantly. Adjustment is the process of finding and adopting modes of behavior suitable to the environment or the changes in the environment. A well-adjusted child is one who does not get affected adversely by the interactions such as conflicts, emotions etc., and whose personality development goes through a healthy course of socialization (Sangeeta et al., 2012).

Adjustment affects the various aspects of a student's life. Pasha, H.S. and Munaf, S. (2013) and Shirali, E. and Golestanipour, M. (2017) concluded that social adjustment significantly affects the self-esteem of the university students. Poor adjustment leads to low academic achievement, behavioral problems, irrelevant educational aspirations and even school dropout (Raju & Rahamtula, 2007). If the adolescents are not adjusted properly they suffer from various problems like mental complexity, conflicts and anxiety. Archana (2011) found that there is a

significant positive relationship between the mental health of adolescents and their adjustment. Students with low adjustments tend to form less than desirable self-evaluations, which significantly affect their happiness, satisfaction and well-being.

Review of Related Literature

Sinha's (1967) study showed arts and science groups significantly discriminated (beyond 0.01 level) on the variable of intelligence, science students scored significantly higher on the intelligence test than the students of arts. Prakash (1972) found urban students have higher intelligence than the rural students. Tiwari (1977) concluded that boys excel girls and urban students are superior to their rural counterparts in intelligence.

Singh (1982) in his study found higher mean intelligence score of urban students as compared to those of rural students. The mean intelligence score of science students was significantly higher than that of arts students. Chatterji (1983) in his study found science students the most intelligent and the arts students the least. Devi (2003) has reported no significant difference in intelligence of boys and girls. Arun (2006) in his study found that boys and girls differ significantly (at 0.05 level) in the mean score of intelligence. Dhammi and Choubey (2014) found that science and humanities group students, graduate and post graduate students showed no significant difference in their general intelligence but difference was found in case of boys and girls, boys being more intelligent than girls.

Singh (2006) found that boys were significantly better than girls in their health adjustment at different levels of socio-emotional climate. Raju and Rahamtulla (2007) found that adjustment of children primarily dependent on the variables like the class in which they are studying, the medium of instruction, and the type of management of the college. Velmurugan and Balakrishnan (2011) found that social adjustment is independent upon gender and locality. The correlation coefficient between social adjustment and self-concept is found to be negligible.

Maureen (2011) made a study on school adjustment in relation to academic achievement and gender which revealed that there were no significant differences between girls and boys in adjustment.

Roy and Mitra (2012) revealed that early and late adolescents group differed significantly from each other in the home, health and social areas of adjustment. Girls showed better adjustment than boys.

Statement of the Problem

A Comparative Study of General Intelligence and Adjustment amongst College going Students of Degree Colleges of Ujjain City.

Objectives of Study

Following objectives have been framed in the present study:

1. To compare the general intelligence and adjustment of college going male and female students.
2. To compare the general intelligence and adjustment of college going students of rural and urban area.
3. To compare the general intelligence and adjustment of college going students of science and arts stream.

Hypotheses of the Study

1. There will be no significant mean difference in the general intelligence and adjustment of male and female students.
2. There will be no significant mean difference in the general intelligence and adjustment of college going students of rural and urban area.
3. There will be no significant mean difference in the general intelligence and adjustment of students studying in science and arts streams.

Delimitations of the Study

1. The study was restricted to Ujjain City only.
2. Students pursuing their graduation course (B.A. & B.Sc.) from various degree colleges were taken for the study.
3. Data was collected from 500 students only.

RESEARCH DESIGN

In the present study, cross-sectional research design has been adopted by the researcher.

METHOD USED

Descriptive and normative survey methods of research were employed for the conduct of the study.

POPULATION OF THE STUDY

The population of the study constitutes all the college going students of Ujjain City, who are studying in undergraduate courses.

SAMPLE AND SAMPLING TECHNIQUE

The investigator used stratified random sampling technique for the selection of the sample. Total 500 college going students of rural and urban area of Ujjain City have been selected as sample. The sample included 100 male and 100 female students.

STATISTICAL ANALYSIS

Mean, S.D. and t-test were used for the statistical analysis.

Analysis and Interpretation of Data

(a) General Intelligence

The frequency distribution and cumulative percentage frequency of college students on general intelligence are given in Table 1. The scores of students on the variable of general intelligence range from 10 - 45 on a scale ranging from 0-60. It may be observed from the table that the mean score of intelligence of college students came out to be 25.55. The distribution of intelligence

scores show that 20.16% of students lay in mean interval. There are 44.64% of students who have intelligence score less than the mean interval and 35.20% of the students have score higher than mean interval. This means that 20% of the students have average general intelligence, 45% of the students have below

average and 35% of the students have above average general intelligence. The distribution of intelligence scores were found to be closely resembling the normal distribution as is clear from the value of Skewness (-0.11) and Kurtosis (Ku.=0.269).

Table 1: Frequency distribution of General Intelligence of college students (N=500)

Class Interval	Frequency	Percentage	CPF		
45-49	1	0.16	100.00		
40-44	10	1.60	99.84		
35-39	65	10.40	98.24		
30-34	144	23.04	87.84		
25-29	126	20.16	64.80		
20-24	128	20.48	44.64		
15-19	99	15.84	24.16		
10-14	52	8.32	8.32		
Mean	Median	Mode	SD	Skewness	Kurtosis
25.55	25.83	26.39	7.75	-0.11	0.269

(b) Significance of mean difference between general intelligence of male and female students.

Table 2 shows the mean score of male and female students on general intelligence test along with their S.D. as well as t-value.

Table 2: General Intelligence Scores of Male and Female Students (N=500)

Group	N	Mean	S.D.	S.E.	t-value
Male	250	25.85	7.20	0.62	0.81
Female	250	25.35	8.10		Non-significant

As shown in table 2 the t-value for general intelligence of male and female students (t = 0.81) is less than the table value (=1.96) even at 0.05 level of significance. It means that there is no significant difference in the general intelligence of male and female students. Thus, the hypothesis 1 stating that 'There is no significant difference in the general intelligence of male and female students' is accepted. The result of the present study is in agreement with the findings of Devi (2003) who reported no significant difference in intelligence of boys and girls. But findings are in contrast to the findings of Tiwari (1977), Sharma (1978), Arune (2006) and Dhammi and Choubey (2014) which show significant

difference in the intelligence of boys and girls.

In the case of Adjustment, the table no. 3 shows that the obtained t-values for home adjustment (t = 8.131), health adjustment (t = 6.384) and emotional adjustment (t = 8.279) have been found significant at 0.01 level of significance at df 198. It shows that there is a highly statistical significant difference in the home adjustment, health adjustment and emotional adjustment of college going male and female students. The low score on the scale indicates better adjustment. In this regard, the mean values show that female students are more adjusted in home and health area of adjustment than male students while male students are more adjusted in emotional area than female students.

Table 3
Comparison of Adjustment of College going Male and Female Students

Adjustment	Gender	N	Mean	S.D.	df	t-value
Home	Male	250	9.59	2.39	198	8.131**
	Female	250	6.43	3.06		
Health	Male	250	8.34	2.41	198	6.384**
	Female	250	5.84	3.08		
Social	Male	250	8.88	3.88	198	0.116
	Female	250	8.94	3.36		
Emotional	Male	100	11.61	3.96	198	8.279**
	Female	100	17.6	6.04		
Educational	Male	100	10.45	4.99	198	0.168
	Female	100	10.33	5.04		

** = Significant at 0.01 Level of Significance.

The obtained t-values for social adjustment (t = 0.116) and educational adjustment (t = 0.168) have not been found significant even at 0.05 level of significance. It shows that there is no significant difference in the social adjustment and educational adjustment of college going male and female students.

It may be concluded that three t-values are found significant while two t-values are found insignificant. Thus, the hypothesis that *“there is no significant difference in the adjustment of college*

going male and female students” is mostly rejected and partly accepted.

(C) Significance of mean difference between intelligence of college going students of urban and rural areas

Table 4 shows the mean score of students on general intelligence test studying in colleges located in urban and rural areas along with their S.D. as well as t-value.

Table 4: General Intelligence Scores of Urban and Rural College Students (N=500)

Group	N	Mean	S.D.	S.E.	t-value
Urban	346	27.55	7.30	0.6	10.75
Rural	154	21.10	6.85		significant

It is shown in table 4 that t-value obtained for students studying in urban and rural colleges (t = 10.75) was more than the table value for CR at 0.01 level of significance (2.58). This means that there is significant difference in the general intelligence of urban and rural college students. Thus, the hypothesis 2 stating that ‘There is no significant difference in the general intelligence of urban and rural college going students’, is not acceptable. It may be said that the areas of college going student has significant impact on the general intelligence of students, college going students of urban areas show higher general intelligence than that of those students which are from rural areas.

The result of present study is in agreement with the findings of Prakash (1972), Tiwari (1977) and Singh (1982) showing higher mean intelligence score of urban students as compared to their rural

counterparts.

The table no. 5 shows that the obtained t-values for home adjustment (t = 9.763), health adjustment (t = 7.684), social adjustment (t = 9.271), emotional adjustment (t = 2.831) and educational adjustment (t = 6.933) have been found significant at 0.01 level of significance at df 198. It shows that there is a highly statistical significant difference in the home adjustment, health adjustment, social adjustment, emotional adjustment and educational adjustment of college going students of rural and urban area. The low score on the scale indicates better adjustment. In this regard, the mean values show that rural students are more adjusted in home, health, social and emotional area of adjustment than urban students while urban students are more adjusted in educational area than rural students.

Table 5

Comparison of Adjustment of College going Students of Rural and Urban Areas

Adjustment	Area	N	Mean	S.D.	df	t-value
Home	Rural	154	6.21	2.52	198	9.763**
	Urban	346	9.81	2.68		
Health	Rural	154	5.64	2.94	198	7.684**
	Urban	346	8.54	2.36		
Social	Rural	154	6.92	2.79	198	9.271**
	Urban	346	10.9	3.25		
Emotional	Rural	154	13.44	6.06	198	2.831**
	Urban	346	15.77	5.56		
Educational	Rural	154	12.6	4.78	198	6.933**
	Urban	346	8.18	4.2		

** = Significant at 0.01 Level of Significance.

It may be concluded that all the five t-values are found significant. Thus, the hypothesis that *“there is no significant difference in the adjustment of college going students of rural and urban area”* is altogether rejected.

(d) Significance of mean difference between general intelligence of Science and Arts stream students

Table 6 shows the mean score of students studying in science stream and those studying in arts stream along with their S.D. as well as t-value.

Table 6: General Intelligence Scores of Science and Arts Stream Students (N=500)

Group	N	Mean	S.D.	S.E.	t-value
Science	231	29.45	6.35	0.54	13.52 significant
Arts	269	22.15	7.20		

As shown in table 6, the mean score of general intelligence of science students is 29.45 and that of arts students, its value is 22.15. The values of S.D. for the science and arts students are 6.35 and 7.20 respectively. The t-value indicating the significance of difference between the means is 13.52 which is significant at 0.01 level of significance meaning thereby that there is significant difference in the general intelligence of science and arts students. Thus the hypothesis 3 stating that ‘There is no significant difference in the general intelligence of science and arts students’ is not accepted. It may be said that the stream in which the students study has significant impact on the general intelligence of students, students studying in science stream show higher general intelligence than that of those studying in arts stream.

The result of present study is in agreement with the findings of Sinha (1967), Singh (1982) and Chatterji (1983) who found that science students

show higher mean score on intelligence test than the arts students but the finding is in contrast to the study of Dhammi and Choubey (2014) who found no significant difference in general intelligence of science and humanities group students.

In the case of adjustment, the table no. 7 shows that the obtained t-values for home adjustment (t = 0.535), health adjustment (t = 0.232), social adjustment (t = 0.662), emotional adjustment (t = 1.111) and educational adjustment (t = 1.414) have not been found significant even at 0.05 level of significance at df 198. It shows that there is no significant difference in the home adjustment, health adjustment, social adjustment, emotional adjustment and educational adjustment of college going students of Science and Arts stream. It may be concluded that all the five t-values are found insignificant. Thus, the hypothesis that *“there is no significant difference in the adjustment of college going students of science and Arts stream”* is altogether accepted.

Table 7

Comparison of Adjustment of College going Students of Science and Arts Stream

Adjustment	Stream	N	Mean	S.D.	df	t-value
Home	Science	100	7.89	2.88	198	0.535
	Arts	100	8.13	3.43		

Health	Science	100	7.04	2.95	198	0.232
	Arts	100	7.14	3.12		
Social	Science	100	9.08	3.72	198	0.662
	Arts	100	8.74	3.53		
Emotional	Science	100	14.14	5.86	198	1.111
	Arts	100	15.07	5.97		
Educational	Science	100	9.89	4.94	198	1.414
	Arts	100	10.89	5.05		

CONCLUSION

1. 20% students have average intelligence, 45% students have below average and 35% students have above average general intelligence.
2. Male and female students do not differ significantly in their general intelligence and adjustment capabilities.
3. There is significant mean difference in the intelligence of urban and rural college going students, urban college students show higher intelligence scores as compared to their rural counterparts. However, there is no significant difference in adjustment.
4. Significant mean difference exists in the general intelligence of students studying in science and arts streams, Science students showing higher intelligence level than that of Arts students. However, there is no significant difference in adjustment.

There has been found a significant difference in the home, health and emotional adjustment of college going male and female students. Female students were more adjusted in home and health area while male students were more adjusted in emotional area.

A significant difference was found in the home, health, social, emotional and educational adjustment of college going students of rural and urban areas. Rural students were more adjusted in home, health, social and emotional area while urban students were more adjusted in educational area. Female students of rural area were more adjusted in home and health area but male students of rural area were more adjusted in social and emotional area. Almost similar findings have been obtained with regard to urban area. As the female students of urban area were more adjusted in home and social area and male students of urban area were more adjusted in emotional area.

On the other hand no significant difference was found in all the five areas of adjustment of college

going students of science and Arts stream. A significant difference was observed in the home, health and emotional adjustment of college going male and female students of science stream. Female students of science stream were more adjusted in home and health area while male students of science stream were more adjusted in emotional area. Similar findings have been found with regard to male and female students of Arts stream. As female students of Arts stream were more adjusted in home and health area and male students of Arts stream were more adjusted in emotional area.

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