



## Impact of Intelligence on learning outcomes of Adolescents

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**Abstract:** A study investigated the impact of intelligence on learning outcomes of adolescents. The sample included 100 adolescent students (50 Boys and 50 Girls) selected by using random sampling technique in Bareilly city. The tool included are revised group test for General Mental ability by Dr. Shyam Swaroop Jalota and students learning out comes of 10<sup>th</sup> class were used for data collection. For Data Analysis mean, standard deviation, standard error deviation and 't' test were used for data analysis. It was found that intelligence has positive effect on learning out comes of adolescent students. The intelligence of very superior and bright level girls found to be affecting their learning outcomes favorably than that of boys.

**Key Words:** Intelligence, learning outcomes, adolescents.

### 1. INTRODUCTION:

Intelligence is the capacity for logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem solving. Intelligence is a kind of mental energy available with in an individual, which enables him to cope with his environment in terms of adaptation and dealing with new situations as effectively as possible. Intelligence is of paramount importance for progress and promotion in any field. Intelligence affects almost all aspects of human life including behavior, ability to learn, thinking, imagination, knowledge, reasoning, capacity, and personality as well. Intelligence of one person helps in a great deal for achieving specific goals of one's life in various fields as in the field of learning outcomes in political, technical or in economical fields.

In the modern world of competition learning outcomes has become a major criterion at the time of admission, job for scholarship and for further higher studies. Learning outcomes plays major role in student life. At the adolescent stage, learning out affects the whole course of life, as it is the most crucial stage of life in which an individual is on the path from childhood to maturity. At this stage if learning outcomes is good then it affects the student's life in a positive way and provides him better opportunities for getting success in life. Learning outcomes depends on are multifarious and innumerable such as physical health, mental health, family environment, personality, and intelligence etc. Among these factors intelligence plays a vital role.

#### 1.1 Operational Definitions used –

**Intelligence:** Intelligence has been defined in many ways. The capacity for logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem solving.

**Learning out comes:** Learning outcomes are statement that describe the knowledge or skill students should acquire by the end of a particular assignment, class, course, or program. For the present study percentage of marks scored by the students in 10<sup>th</sup> class was taken as learning outcomes.

**Adolescents:** Adolescence can be defined biologically as the physical transition marked by the onset of puberty and the termination of physical growth, cognitively as changes in the ability to think abstractly and multi-dimensionally or socially as a period of preparation for adult roles.

World Health Organization (WHO) defines 'Adolescents' as individuals in the 10-19 years age group. In the present study adolescents of age group of 15-16 years have been taken.

### 2. Objective of the study :

- To study the intelligence on learning outcomes of boys.
- To study the intelligence on learning outcomes of girls.



- To find out the difference between adolescent boys and girls learning outcomes on the basis of their intelligence.

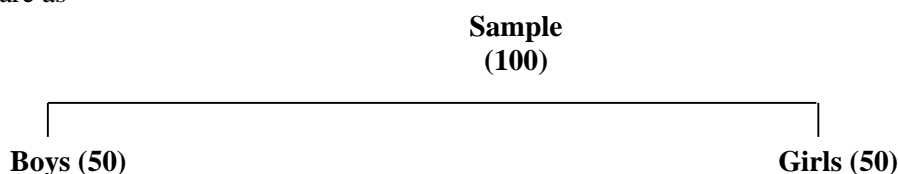
### 2.1 Hypotheses of the study –

- There is no significant difference between adolescent boys and girls learning outcomes on the basis of their significance.

### 3. Methods :

Sampling Technique: The present study was conducted on a sample of 100 adolescent students selected from Bareilly city schools (50 boys and 50 girls).

Within the age group of 15-16 years. Only those students who are in 10<sup>th</sup> class from UP Board had been taken as sample. The subgroups are as –



Random sampling technique was used for selecting the sample.

**Research Method:** In the present study descriptive survey method had been employed.

### Tools used in the study –

- Revised Group test of General Mental Ability (72) by Dr. Shyam Swaroop Jalota for assessing the general mental ability of adolescent students.  
 According to the marks obtained in this test the students were divided into following nine groups -
  - Excellent
  - Very Superior
  - Superior
  - Bright
  - Average
  - Low
  - Dull
  - Very Dull
  - Poor
- The percentage of high school examination marks (as collected from their school record) were taken as learning outcomes.
- Statistics employed: In the present study, descriptive statistics like mean, standard deviation, standard error deviation were measured besides these ‘t’ test was employed.

### 4. Analysis & Interpretation of Data :

Keeping in view, the objectives of the study, data is analyzed and interpreted with the help of following tables –

**Table No. 1:** Impact of Intelligence learning outcomes of Adolescents

S.No.	1	2	3	4	5	6	7	8	9
Levels	Excellent	Very Superior	Superior	Bright	Average	Low	Dull	Very Dull	Poor
Number	8	20	21	19	12	10	9	1	0
Learning outcomes/ academic achievement in percentage %	78.25	74.11	66.07	62.32	59.47	60.00	59.09	50.00	0

Table one shows that intelligence has a positive impact on learning outcomes of adolescents.

**Table No. 2:** Difference between adolescent boys and girls learning out comes on the basis of their intelligence.

S.no.	1		2		3		4		5		6		7		8	
Levels	Excellent		V.Sup.		Superior		Bright		Average		Low		Dull		V. Dull	
Gender	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
No.	4	4	9	11	11	10	10	9	4	8	6	4	5	4	1	0
Mean	71	77.01	66.30	78.81	65.80	67.05	54.31	68.10	59.6	59.39	60.02	58.86	53.71	63.41		



t-ratio	0.47	-3.99	-0.78	-3.02	0.098	0.097	-1.78	
A/R of Hypothesis	A	R	A	R	A	A	A	

Level of significance 0.05 Acceptance (A), Rejection (R)

**Table No. 2:** shows that at the excellent, superior, average, low and dull level of intelligence, learning outcomes of adolescent boys and girls do not differ significantly and at these levels null hypothesis is accepted. On the other hand, at very superior and bright level of intelligence, learning outcomes of adolescent boys and girls differ significantly, very superior, and bright girls scored more marks than boys. Null hypothesis is rejected at these levels.

### 5. Major Findings :

- It was found that intelligence has positive impact on learning outcomes of adolescent students.
- Intelligence of girls was found to be affecting their learning outcomes more than that of boys.

### 6. Educational Implications :

Intelligence has positive impact on Learning out comes thus intelligence students score more marks but for the students having less intelligence and are willing to score more marks, the teachers should make them practice the lesson again and again and the parents should provide them enough opportunities for practice and repetition. Different instructional strategies should be used by the teachers to motivate them. Thus, less intelligent students can also score more marks. Moreover, the students who show high intelligence but scoreless marks, clearly shows that there are some other factors which affect learning outcomes then the teachers and parents should try to find out the reason and remove it. So, the study has important implications for teachers and parents, they can be instrumental in facilitating overall and positive development of the adolescent students. Teachers should take this into consideration that intelligence of adolescents affects their learning outcomes.

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