

## Relationship between Intelligence and Leadership of Secondary School Students: A study

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### ABSTRACT

*Education in the largest sense is any act or experience that has a formative effect on the mind, character or physical ability of an individual. Preparing today's youth for their roles as tomorrow's leaders is a challenge we all face. If we wish that gifted student should take leadership opportunities, we must have to understand general intelligence, types of intelligence and their features. Considering the characteristics of secondary school students, adolescence age, leadership, giftedness, it is the best period for a study and understanding relationship between intelligence and leadership qualities of secondary school students.*

*The statement of the problem was to study the relationship between intelligence and leadership of secondary school students. The objectives of the study were to find the relationship between intelligence and leadership of secondary school students and to assess the relationship between intelligence and leadership of boys, girls, gifted and general students.*

*The co-relational research method was used. Population includes the secondary school students from Pune city. Purposive sampling method was used for selection of schools and students. The sample includes 115 students. The data was collected by using standardised Cultural Fair Intelligence Test (CFIT) and researcher developed Leadership Inventory (LI). Person's Correlation Coefficient Method was used as techniques for data analysis.*

*The conclusions of this research study are the correlation between intelligence and leadership among the students of secondary school is Positive. This correlation between Intelligence and Leadership is at low level in all students, moderate level in boys and general students, but very low level in girls and gifted students*

**Keywords:** *Intelligence, Leadership, Secondary School Students.*

### Introduction :

Education in the largest sense is any act or experience that has a formative effect on the mind, character or physical ability of an individual. In its technical sense, education is the process by which society

deliberately transmits its accumulated knowledge, skills and values from one generation to another. Teachers in educational institutions direct the education of students and might draw on many subjects.

Intelligence is an umbrella term

describing a property of the mind including related abilities, such as the capacities for abstract thought, understanding, communication, reasoning, learning, learning from past experiences, planning, and problem solving. Intelligence is most widely studied in humans, but is also observed in animals and plants. Artificial intelligence is the intelligence of machines or the simulation of intelligence in machines. Intelligence tests are widely used in educational, business, and military settings due to their efficacy in predicting behaviour. Intelligence is significantly correlated with successful training and performance outcomes. It is the best predictor of success in job performance.

Leadership is a process that extends over many years. The realities of life require selection and training that occur early in the individual's career, but that is only the first step. Leadership calls for repeated assessment and repeated opportunities for training. Leadership is a performance of functions which help a group to achieve its objectives.

The future of the world civilization will soon rest in the hands of today's youth. To become productive and contributing individuals who can be effective and proactive in determining the course of tomorrow's world, today's youth must develop positive leadership, up-to-date knowledge, proper attitudes, required skills

and high aspirations. Preparing today's youth for their roles as tomorrow's leaders is a challenge we all face. However it is well accepted that the ultimate aim of education is all round personality development, of which leadership development is a part, educational scenario in India is that schools have focused merely on academics. Nobody owns the responsibility beyond the academic achievements. Though many researchers and educationist have worked separately on leadership development and lots of literature and modules are readily available, very few curriculum designers have tried to merge it with school curriculum. Hence, it seems that the scope of education has remained limited to teaching of bookish knowledge.

Intellectually gifted individuals form highly valuable human resources of many countries in their period of crisis have tried to catch hold of this pool to train them and utilize their potential to overcome the crisis. If we wish that gifted student should take leadership opportunities, we must have to understand general intelligence, types of intelligence and their features. We must also have to understand leadership, types of leadership and their features. And then we must have to find a correlation between giftedness and leadership qualities. It is well agreed that a gifted leader increases the efficiency of a task completion. However, it is found that leaders are not necessarily intellectually gifted persons. If a gifted child

receives proper attention and opportunity for self-expression and leadership development, he/she can make noteworthy contribution to the welfare of society, the nation and humanity at large.

Secondary Education serves as a link between the elementary and higher education, and plays a very important role in this respect. In most contemporary educational systems of the world, secondary education comprises the formal education that occurs during adolescence. It is the period of maximum growth and development with regard to mental functioning. Intelligence reaches climax during this period. Intellectual powers like logical thinking, abstract reasoning, critical thinking and concentration are almost developed.

### **1. Review of related researches**

Hardy R.C (1995), Chan D.W. (2000), Schneider B., Earhart K. H., Earhart M.G. (2002), Adam, G. J. and Wiemann, C.M.(2003), have worked on evaluation tools for identifying, detecting or measuring leadership qualities.

Dobosz, R.P. &Beaty L. A. (1999), Hart L, Gary J. M, Duhamel C.C. &Homefield K. (2003) and Moran M.M. & Weiss M. R. (2006) have studied relation between the various sports activities and leadership development.

Bakken L., Romig C. (1992), Culp III K &Kohlhagen B. (2000), Kuhn P. & Weinberger C. (2005), Oria J., Cureton V.Y. &Canhan D. (2001), Powell & Rhyne L. (2006) put forward the need of a leadership development programme.

Some researchers have tried to establish the relationship between various personality factors and the leadership. Charbonneau, D., & Nicol, A. M. (2002) have tried to find the relationship between emotional intelligence and leadership in adolescents. While M. C. McCullough, M. Ash Bridge, D. &Pegg, R. (1994) found the effect of Self-esteem, locus of control etc. on adolescent leadership behaviour. Singer, M. (1990) has worked on correlation of aspirations to leadership.

Wilson P., Marlino, D., Kickul J. (2004) examined the diverse and motivations of teens across gender & ethnic identity.

There are some miscellaneous topics covered by researchers which would not be categorized. Yip J., Liu &Nadel A. (2006) worked to find out whether there is difference between youth leaders and adult leaders while Downing, Cris (2006) worked on generation gap. Provencher, M. P. (2006) concluded that it is never too young to lead. Zacharatos, A., Borling, J. &Kelloway, E.K (2000) explains the relation between family background & leadership style. They conclude that adolescents who perceive their

parent exhibiting transformational leadership behaviour would themselves display this behaviour.

There are researches regarding development of leadership qualities among adolescents. Martine K, T., Schilling, T. & Hellison D. (2006) worked on compassionate and caring leadership among adolescents. Rickets, J. C. & Rudd, R.D. (2002) have worked on a topic similar to the topic that researchers have selected. They developed a comprehensive leadership education made to train, teach and develop leadership in youth.

Van Linden, J.A. & Fertman, C.I. (1998) based on fifteen years of work with teens and adults provide Flexible strategies that can be used with adolescents in any program and in varied settings.

Yu. H. C. & Lewis-charp, H. (2006) find that along with promoting leadership skills the program must encourage youths to contribute and make a difference in their communities.

Bakken, L & Romig C. (1992) analyzed that males deserve more 'control' (lead) and 'affection' is less while females have more 'affection' desire than the 'control'. This gives hint that one must plan different programmes for male and female adolescents.

While taking the review, researchers found that 'Gifted Students did not have higher leadership potential than their

counterparts' (Loh, G. & Chang, A. S.C. 1996). But actual age group of sample was not given. Considering gaps in the previous researches this study intends to explore the relationship between leadership and intelligence of secondary school students.

### **3. Need and importance of the Study**

Considering the characteristics of secondary school students, adolescence age, leadership, giftedness, it is the best period for a study and understanding relationship between intelligence and leadership qualities of secondary school students. Hence, the researchers have selected to study the relationship between intelligence and leadership of secondary school students.

Following are the main reasons behind the importance of this research study.

- This research work is helpful for understanding adolescent gifted leadership behaviour which will help for preparing various models of leadership.
- It also helps to develop those areas of personality among gifted so they can occupy the higher places in the future.
- Leadership development training programmes can be developed for training of leadership qualities.
- The results of the test may be useful for guiding and counseling purpose.

#### 4. Statement of the Problem

To study the relationship between intelligence and leadership of secondary school students.

#### 5. Objectives of the Study

The objectives of the study were as the following:

- 1) To find the relationship between intelligence and leadership of secondary school students
- 2) To assess the relationship between intelligence and leadership of boys of secondary school students
- 3) To measure the relationship between intelligence and leadership of girls of secondary school students
- 4) To evaluate the relationship between intelligence and leadership of gifted secondary school students
- 5) To find the relationship between intelligence and leadership of general secondary school students

#### 6. Assumptions of the Study

The following are the main assumptions considered in the study.

- Intelligence is an important characteristic of leadership.
- Leaders are intelligent than the group members or their followers.

#### 7. Research questions

Following are the null Hypotheses proposed by the researchers:

- What is the relationship between intelligence and leadership of secondary school students?
- What is the relationship between intelligence and leadership of boy students?
- What is the relationship between intelligence and leadership of girl students?
- What is the relationship between intelligence and leadership of gifted students?
- What is the relationship between intelligence and leadership of general students?

#### 8. Scope limitations and delimitations of the Study

**Scope:** This research is associated with the relationship between intelligence and leadership of secondary school students. It provides a statistical data regarding the relationship level between intelligence and leadership of secondary school students.

**Limitations:** The conclusions of this study are depended on the responses given by the students to the tools used for data collection.

#### Delimitations

- This study is delimited only to the secondary school students from Pune city.
- It is delimited to the students English Medium Secondary Schools.

- An instrument (Leadership Inventory) used in the study for data collection is developed by the researchers.

## 9. Research Methodology

### • Research Method

In this research study, a co-relational research method was used to investigate relationship between intelligence and leadership of secondary school students.

### • Population and sample

The population includes the secondary school students from Pune city. Purposive sampling method was used for selection of schools and students. The sample was collected from two schools, out of these one is special school for gifted students. The sample includes 115 students.

### • Tools for data collection

The data was collected by using following tools-

### 1. Cultural Fair Intelligence Test (CFIT)

The Culture Fair Intelligence Test (CFIT) was conceived by Raymond B. Cattell in 1920s. It is a non-verbal IQ test to measure student's analytical and reasoning ability in the abstract and novel situations. The test includes mazes, classifications, conditions and series. Such problems are believed to be common with all cultures. That's the reason that the testing industry claims it free from all cultural influences. In

the test, the 50 items were presented with an incomplete, progressive series.

### 2. Leadership Inventory (LI)

The leadership inventory was developed by the researchers which help to measure planning skill, decision making skill, communication skill, self-confidence, Initiative, commitment and involvement with group and motivating others and inter relations skills of the students. In the test, 50 statements were written with complete meaningful sentences with five choices always, frequently, occasionally, seldom and never.

### • Statistical techniques for data analysis

To find correlation between intelligence and leadership of secondary school students, Person's Correlation Coefficient Method was used as techniques for data analysis.

## 10. Relationship between Intelligence and Leadership

To study relationship between intelligence and leadership of secondary school students, the researchers had calculated *Pearson's* correlation coefficient between intelligence and leadership of secondary school students (All students, Boys, Girls, Gifted students and General students). The means of scores obtained from the Cultural Fair Intelligence

Test (CFIT) and Leadership Inventory (LI) were used to calculate the correlation. The means, Standard deviation and Correlation coefficient of Intelligence and Leadership are given in the table.

**Table No. 1**

**Means, Standard deviation and Correlation coefficient of Intelligence and Leadership**

No.	Sample	Sample (N)	Variable	Mean	S.D.	(r)	Correlation
1	All students	115	Intelligence	48.94	12.37	0.31	Positive (Low level)
			Leadership	191.98	14.66		
2	Boy students	55	Intelligence	48.73	13.96	0.42	Positive (Moderate level)
			Leadership	188.95	14.23		
3	Girl students	60	Intelligence	49.13	10.51	0.19	Positive (Very low level)
			Leadership	195.13	14.69		
4	Gifted students	65	Intelligence	55.85	7.39	0.12	Positive (Very low level)
			Leadership	194.08	14.65		
5	General students	50	Intelligence	39.96	11.82	0.41	Positive (Moderate level)
			Leadership	189.29	14.37		

From Table No. 1, the correlation between intelligence and leadership among the students of secondary school is Positive. The correlation between Intelligence and Leadership is positive and at low level in all secondary school students. The correlation between Intelligence and Leadership is positive and at moderate level in boy students. The correlation between Intelligence and Leadership is positive and at very low level in girl students. The

correlation between Intelligence and Leadership is positive and at very low level in gifted students. The correlation between Intelligence and Leadership is positive and at moderate level in general students.

## 11. Conclusions

The conclusions of this research study are:

- 1) The correlation between intelligence and leadership among the students of secondary school is Positive.
- 2) The correlation between Intelligence and Leadership is positive and at low level in all secondary school students.
- 3) The correlation between Intelligence and Leadership is positive and at moderate level in boy students.
- 4) The correlation between Intelligence and Leadership is positive and at very low level in girl students.
- 5) The correlation between Intelligence and Leadership is positive and at very low level in gifted students.
- 6) The correlation between Intelligence and Leadership is positive and at moderate level in general students.

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