

## **A STUDY ON LEVEL OF ASPIRATION AND ACADEMIC PERFORMANCE IN MATHEMATICS**

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### **Educational Aspirations**

Individuals will have aspirations. At all stages of life people try for self: enhancement. The aspirations during student period influence their behavior. An individual aspiration level represents him not only as he is at any particular moment, but also as he would like to be at some point in the future. It is a measure of his intentional disposition, an important element of his long, range behavior. By knowing a person's level of, aspiration, we learn a great deal about him. So it is necessary to have a good knowledge of the aspirational level of an individual, both from educational and from guidance point of view. A good 'education system, manned by the educator, has, consequently, a responsibility to provide for each individual. It enables him to achieve the best of his abilities and become a contributing member of the society.

One way of becoming a productive member of the society for an individual is through self-realization. Selection of a right type of job and subsequent growth and adjustment in it is satisfying both to the individual and also meets the manpower needs of the society. The role of occupation in the life of an individual has much, broader psychological importance than has generally been recognized. Young men and women leaving educational institutions and entering the world of work are faced with various problems about their life vocations. Aspiration as a term is both a fascinating subject in the field of educational psychology. It is fascinating because all of us are engaged in something or the other most of the time. A child is playing, a girl is singing, a medical student is preparing to be a doctor, a social worker is helping his fellow men, a philosopher is discussing and thinking and a politician is planning for elections. The reason for such acts is motivation. Motivation makes a fascinating game in which all individuals are engaged

### **Aspiration and Motivation**

In vocabulary of psychology, one comes across hundreds of words which refer to motivation: "wants", "striving", "desire", "need", "motive", "goal", "aspiration", "drive", "wish",

"aim", "ambition", "hunger", "thirst", "love", etc. If we try to define we can define them differently, but their meanings overlap so much that it is difficult to maintain uniformity. It is a process by which an individual is "inspired, goaded or coaxed to do something". It is one of the most important conditions which aid learning. The psycho-physiological construct implies the individual to achieve his predetermined goal(s). "To motivate is to induce movement". Motivation, then, must be considered as the process by which a child may be prepared to respond to situations which are directed towards the achievement of objectives. Motivation is a broad-based term and encompasses many aspects of behaviour. It might be designated as "the tendency for the direction and selectivity of behaviour to be controlled by the conditions to consequences and the tendency of this behaviour to persist until a goal is achieved". Motivation is purposive; without the presence of goals this process may not start at all. It is a potent component of "Aspiration". The researcher considers that it will be appropriate to deal motivation in detailed.

### **Aspiration and Planning**

Aspirations and plans are two theoretical concepts which have received considerable attention by social theorists and researchers over the past three decades. (Gerald D.Bell1963) However, there has been little agreement concerning the definition of these concepts and/or the operations for their measurement. The term 'aspiration is used synonymous with 'Educational choice and educational plans. A plan is defined as a person's perception of what he will be doing or will have accomplished at some future date. One is concerned with the educational plans of students to obtain higher levels of schooling (e.g., "I expect to graduate from high school," or "I expect to go on to college," etc.). Aspirations are defined, on the other hand, as wishes or desires. we are interested in the educational aspirations (desires) of students to attain higher levels of schooling.

### **Definition of Aspiration**

Lewin, Dembo, Festinger, and Sears (1944) maintained that "Level of Aspiration" included: (1) the level of performance hoped for, (2) the level of performance expected, and (3) the level of performance satisfied with.

"Level of Aspiration" was defined by Schultz and Ricciuti(1954) as how well a subject either expects or hopes to do on the next trial. Sears, (1940) defined aspiration as "the verbally stated goal of the individual's efforts."

Bell,(1963) illustrates the tendency of researchers to include both "desire to excel" and "perceived likelihood of success" under the label of aspirations. It appears that few studies treat desire and expectation or aspiration and plans as separate factors. Using a factor-analytic method, Weiss (1961) examined the dimensions underlying different types of aspiration questions used in research. Two dimensions were found

which are consistent with the conceptualization. Factor A was described as a judgmental or expectation factor with "its highest loadings on questions which ask primarily for an estimate or judgment, either an estimate of future performance or an estimate of the achievement necessary to produce a feeling of satisfaction or success." Factor B was described as motivational or aspiration and has "its loadings on those questions which inquire as to the desires and aims of the subjects." Crandall's (1963) study of achievement expectations serves as an illustration of the need to consider plans and aspirations separately in research.

The social implication of educational aspirations and plans is illustrated by Weiner and Murray. In discussing the level of aspiration of the culturally "deprived," It is contended that differences among pupils relative to social class do not depend so much upon parental desires but rather upon their plans for their children. They contend that lower socioeconomic parents want their children to go to college, but with them it is only a wish while with middle-class parents it is an expectation.

Although questions which ask subjects to indicate their educational aspirations (desires) and educational plans (expectations) have been used extensively in educational research, the two dimensions have not always been clearly differentiated within either studies or item content. No objection is posed to the use of these two of questioning, for the researcher may have good reason to examine both aspirations and plans. Objection is raised, however, to treating aspirations and plans as synonymous.

Some educators assume that there is a causal connection between how far a student wishes to go in school and his academic performance that those students who desire higher levels of education are more "motivated" to do well in their schoolwork. Although little attention is given in the present study to this assumption, both desire for a particular level of schooling and plans for a particular educational level show a decreased association with academic achievement in the later years of high school. It is questioned whether school programs designed to elevate the educational aspirations of high school students are likely to bring about higher academic achievement, especially if the programs are initiated later in the high school years. "Motivating" a pupil to "want" to graduate from high school, or even to want to go on to college, may be quite futile if one views this as sufficient means for enhancing his school achievement.

The possible futility of enhancing aspiration is further supported by two other findings in this study: (1) the low correlations between aspirations and achievement at all grade levels, and (2) the large contribution of variation in Expected Performance to the aspiration-achievement association. This is in accord with prior research by the authors. It is also worth noting that, contrary to the commonly encountered view that "poor" children tend to hold low educational aspirations, no evidence was found of a positive

relationship between educational aspirations and Socio Economic Status when educational plans were controlled.

The educational desires of students and their expectations for the future are clearly separate factors. Of the two, educational plans are more likely to be related to both academic performance and socioeconomic background. Conversely, educational aspirations do not appear to be associated with either Socio Economic Status or achievement.

### **Significance of the Study**

Individuals will have aspirations. At all stages of life people try for self: enhancement. The aspirations during student period influence their behavior. An individual aspiration level represents him not only as he is at any particular moment, but also as he would like to be at some point in the future. It is a measure of his intentional disposition, an important element of his long, range behavior. By knowing a persons level of, aspiration, we learn a great deal about him. So it is necessary to have a good knowledge of the aspiration level of an individual, both from educational and from guidance point of view. In this study the investigator thought that it would be fit to study the level of aspiration in achievement of Mathematics at Higher Secondary level.

### **Assumption of the Study**

- Developing Aspiration at higher secondary level is feasible.
- The students shall acquire the advantage of better understanding of the subjects.
- The learners shall be prompted to learn MATHEMATICS while their level of aspiration gets accelerated.

### **Limitation of the Study**

*The limitation of the study is as follows.*

- This study is limited to the students studying in standard XII.
- The sample is limited to few schools in SIVAGANGAI District.

### **Statement of the Problem**

The present investigation aims at evaluating the Achievement in Mathematics of the students of XI Standard in relation to level of aspiration.

### **Objectives of the Study**

- To study Achievement of students in Mathematics at Higher Secondary level.
- To measure the degree of attainment of Level Aspiration of the students by the students
- To find out relationship between the criterion and predictor variables.

### **Hypotheses of the Study**

- There exists no significant difference in the mean scores of Level of Aspiration of students in terms of gender.
- There exists no significant difference in the mean scores of Level of Aspiration of students belonging to the Government Higher Secondary School and the Managements Higher Secondary Schools.
- There exists significant difference in the mean scores of Level of Aspiration of students in terms of locality.
- There exists no significant difference in the mean scores of Level of Aspiration of students belonging to Government Higher Secondary School in terms of socio – economic status.
- There exists no significant difference in the mean scores of Achievement in Mathematics of students in terms of gender.
- There exists no significant difference in the mean scores of Achievement in Mathematics of students belonging to the Government Higher Secondary School and the Managements Higher Secondary Schools.
- There exists significant difference in the mean scores of Achievement in Mathematics of students in terms of locality.
- There exists no significant difference in the mean scores of Achievement in Mathematics of students belonging to Government Higher Secondary School in terms of socio – economic status.

### **Procedure**

The present study is an attempt to study the Achievement in Mathematics of students of XI STD in Schools chosen for the study. It essentially needs a procedure for selecting samples and constructing and validating an achievement test. This section furnishes a detailed report on sampling technique and instrumentation.

### **Sampling**

The population of the present study constitutes about 1500 boys and girls. It is not possible to administer the test to all the population. On account of this, sampling design was restored. Before designing the sample, an exploratory survey was conducted, which brought out the information regarding the school, location and into strength. This lead to the selection of sample schools to conduct the research work. The exploratory survey made an initial selection of sample schools for the study as well as the final study. For the study 120 pupils were chosen as a sampling population from Government Schools, Government Aided Schools and Matriculation Schools from Veloree District.

**Tools of Research**

The present study needed a validated achievement test to serve as the tool of research, to evaluate the pupil's mastery of all the concepts of science at Standard XII level; belonging to the cognitive domain. Achievement test in Mathematics was administered.

**Research Design**

The investigator has used Survey method for collecting the data. The tool used for this study is aspirational level scale is a standard tool developed by Loganatha Reddy. The tool has forty statements and has high reliability and validity.

**Validity of the Tool**

**Reliability of the Tool**

The reliability of a measure refers to the degree to which the measure can be depended upon to secure consistent results upon repeated application. Reliability, therefore, indicates the probability of obtaining the same results upon repeated or a subjective judgment.

**Statistical Procedure and Data Interpretation**

Educational aspirations is a trait, it was felt that comparison of the trait distributions against normal probability distribution hypotheses will help in drawing relevant conclusions. For comparison of the samples means and the standard deviations are calculated and the differences between means were tested for significance at 0.05 level. To identify the association between the traits the hypothesis of independent distribution of traits was adopted and from the contingency tables chi – square values calculated and interpreted.

**Analysis Aspiration Level**

<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
Boys	63	157.43	7.13	0.98	NS
Girls	57	158.67	6.67		
<b>Type Institutions</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
GVT	60	156.33	5.63	2.22	S
MGT	60	159.50	8.16		
<b>Locality</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
Urban	43	159.08	8.36	1.28	NS
Rural	77	157.28	5.46		
<b>SEs</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
High	90	159.05	6.83	2.63	S
Low	30	155.16	7.07		
<b>Parental education</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
High	62	159.21	7.73	1.93	NS
Low	58	156.88	5.87		

df = 198

t<sub>(0.05)</sub> = 1.96

t<sub>(0.01)</sub> = 2.58

**Achievement in Mathematics**

<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
Boys	63	34.56	7.00	0.91	NS
Girls	57	33.40	7.00		
<b>Type Institutions</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
GVT	60	32.17	7.74	2.89	S
MGT	60	35.83	6.06		
<b>Locality</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
Urban	43	32.95	7.62	2.03	s
Rural	77	35.90	6.55		
<b>SEs</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>"t" value</b>	<b>Significance</b>
High	90	33.04	7.30	3.68	S
Low	30	37.83	5.74		
<b>Parental education</b>	<b>N</b>	<b>mean</b>	<b>sd</b>	<b>"t" value</b>	<b>Significance</b>
High	62	35.66	6.60	1.93	NS
Low	58	32.22	7.31		

df = 198

t<sub>(0.05)</sub> = 1.96t<sub>(0.01)</sub> = 2.58

The table shows the following facts.

**Findings of the Study**

1. There exists no significant difference in the mean scores of Level of Aspiration between students in terms of gender.
2. There exists significant difference in the mean scores of Level of Aspiration between the students in terms of type of institution.
3. There exists no significant difference in the mean scores of Level of Aspiration between students in terms of locality.
4. There exists significant difference in the mean scores of Level of Aspiration between students in terms of socio-economic status.
5. There exists no significant difference in the mean scores of Level of Aspiration between students in terms of parental education.
6. There exists no significant difference in the mean scores of Achievement in Mathematics between students in terms of gender.
7. There exists significant difference in the mean scores of Achievement in Mathematics of between the students in terms of type of institution.
8. There exists significant difference in the mean scores of Achievement in Mathematics between students in terms of locality.
9. There exists significant difference in the mean scores of Achievement in Mathematics between students in terms of socio-economic status.
10. There exists no significant difference in the mean scores of Achievement in Mathematics between students in terms of parental education.

### **Implications**

Mathematics occupies a prominent piece in modern era of scientific age. Knowledge of physics plays a crucial role in developing industries. Applied Mathematics is the chief action of the development a nation students as a rule it Higher Secondary Level go in for pure, Scientific groups. They leave things by rote memory. There is a line need for motivating the students. Once the level of aspiration of is identified students with higher level of aspiration may be given guidance to change a career related to industry that promote the growth of a nation indirectly.

### **Conclusion**

The students have a higher level of scientific attitude. The achievement of the students in Mathematics is not of higher order. The reason may be that they have been exposed to scientific literature at concrete stage at lower level and suddenly they find it difficult to cope with the scientific literature at the higher level which involves abstract thinking.