# RELATIONSHIP BETWEEN SCIENCE AND TECHNOLOGY CAREER PREFERENCE AND VERBAL INTELLIGENCE AMONG SENIOR SECONDARY SCHOOL STUDENTS

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## Abstract

*An individual selects a vocation for himself. Choosing a vocation is an inevitable event of modern social life. The present study aimed at studying the relationship of career preferences and verbal intelligence of senior secondary school students. To serve this purpose, a sample of 304 class XII students was drawn from five senior secondary schools situated in District Sirmour of Himachal Pradesh. General Mental Ability Test by Jalota and Career Preference Record by Bhargava and Bhargava were administered to total sample of 304 students.*

**Introduction:**

The choice of occupation is a crucial decision of life, for one's occupation is the water shed down which the rest of one's life flows. Till recently a person usually took up the vocation of his ancestors. If father was a farmer the son had no choice but to go for farming. Manu in his book 'Manu Samriti' categorized society on the basis of occupation into four castes –

Brahmin's for teaching

Kashatria's for defence

Vaishya's for business

Shudra's for menial service to the people of high caste.

Therefore the choice of occupation is no longer determined by one's caste but the factors enumerated above. Moreover the discoveries and inventions in the field of science, have resulted in the emergence of an unprecedented number of occupation.

According to Carter V. Good, Dictionary of Education, MC Grew-Hill Book Company 1973, p. 79 - Career is the progress or general course of action of a person through some phase of life, as in some profession or undertaking: the occupation or profession, especially one requiring special training, followed as one's life work.

Hence there can be multiple career residential backgrounds i.e. a growing of utilization fields broadly related on the basis of required skills and knowledge. These career residential backgrounds are related. **Career preference** refers to the extent to which a person sees involvement in a career as central to his or her adult life role. Super defined as career committed, those person who were motivated to pursue over a long span of time, their own development in one occupation or in a series of occupations as their interests and opportunities changed. Career commitment involves a future orientation a concern with a long range planning. It refers to skill such as reading, writing and understanding what people say. It involves sensitivity to spoken and written language, the ability to learn languages and the capacity to use language to accomplish certain goals.

This intelligence includes the ability to impactively use language to express oneself rhetorically or poetically and language as a means to remember information. Writers, poets, lawyers and speakers are among those that Howard Gardner sees as having high linguistic intelligence. Verbal reasoning is important in most aspects of school work. Reading and language arts tasks required verbal reasoning skills. Even the more abstract courses such as math and physics require verbal reasoning skills, as most concepts are either introduced orally by the teacher or introduced in written form in a textbook.

You are naturally going to do better at a skill if you have a natural intelligence in that residential background, for example if you have a high musical intelligence in that residential background, you'll probably find learning a new musical instrument a lot easier than other people, and you probably really enjoy this challenge as well.

Multiple intelligences are also useful in helping you work out what you don't like or what you're not naturally good at.

**Objectives Of The Study:** To compare five groups of senior secondary school students exhibiting different levels of fondness for Science and Technology career with respect to their mean verbal intelligence**.**

**Hypothesis:** Five groups of senior secondary school students exhibiting different levels of fondness for Science and Technology career will differ significantly with respect to their mean verbal intelligence.

**Delimitations:** The study was delimited in the following aspect:

The sample was confined to the students studying in senior secondary schools situated in district Sirmour of Himachal Pradesh.

**Sampling:** In the present study, a sample of 304 students was drawn from five Government Senior Secondary Schools situated in rural and urban areas of Sirmour District of Himachal Pradesh. It is worth mentioning that all these schools followed the curriculum prescribe by the Himachal Pradesh Board of School Education. Due to paucity of time and limited scope of the study, the schools were selected on the basis of convenience. However, it was observed that the selected schools are spread over a wider area.

From each school a sample of 60 or 61 students was selected randomly. Finally, the total sample consisted of 304 (151 boys and 153 girls) students. The detailed distribution of the sample selected for the present study is given below.

**Table : The distribution of the sample**

| S. No. | Name of the school | Locality | Boys | Girls | Total |
|--------|--------------------|----------|------|-------|-------|
| 1 | GSSS (GIRLS), NAHAN | URBAN | - | 61 | 61 |
| 2 | GSSS (BOYS), NAHAN | URBAN | 61 | - | 61 |
| 3 | GSSS, MOGINAND | RURAL | 30 | 31 | 61 |
| 4 | GSSS, SANIO DIDAG | RURAL | 30 | 31 | 61 |
| 5 | GSSS, BOGDHAR | RURAL | 30 | 30 | 60 |
| **Total** | | | **151** | **153** | **304** |

**Tools To Be Used:** To collect the requisite data for the present study the investigator used General Mental Ability Test by Jalota and Career Preference Record by Bhargava and Bhargava.

**Statistics To Be Applied:** The techniques of frequency distribution and Analysis of Variance were used to analyse the data in the present study.

**Analysis And Interpretation:** General Mental Ability Test by Jalota and Career Preference Record by Bhargava and Bhargava were administered to total sample of 304 students. Both the

tools were scored as per the respective manuals and scores thus obtained were tabulated for further analysis. The analysis and interpretation of the data were carried out in the manner detailed below:

The students were placed under different career preference categories as per the criteria given in the manual of the test. The details of this categorization are given below:

A.    The students who scored 18-20 for a particular career were placed under the category "High Career Preference".

B.    The students who scored 14-17 for a particular career were placed under the category "Above Average Career Preference".

C.    The students who scored 7-13 for a particular career were placed under the category "Average Career Preference".

D.    The students who scored 4-6 for a particular career were placed under the category "Below Average Career Preference".

E.    The students who scored 0-3 for a particular career were placed under the category "Low Career Preference".

The total sample of 304 students was divided into five sub-categories indicating their level of fondness for Science and Technology career.  The results are given as under :

| Group/ Sub-Categories | High | Above Average | Average | Below Average | Low |
|---|---|---|---|---|---|
| N | 120 | 47 | 88 | 33 | 16 |

These five groups of students were compared with respect to their mean scores on verbal intelligence. Before applying the statistical technique of ANOVA, all the five groups were equated in terms of N.  Since, the minimum number of students falling in sub-category `Low' was 16, 15 students from each of the five categories were selected randomly.  Thus the total sample for the purpose of studying relationship of Science and Technology career preference with verbal intelligence ANOVA came out to be 75.

The means for the groups of students falling under abovementioned five sub-categories on the variable of Verbal Intelligence are given below :

| Group | High | Above Average | Average | Below Average | Low |
|-------|------|---------------|---------|---------------|-----|
| N | 15 | 15 | 15 | 15 | 15 |
| Mean | 59.60 | 63.47 | 65.00 | 56.60 | 67.13 |

Table presents the results of Analysis of Variance for five groups of senior secondary school students exhibiting different levels of fondness for Science and Technology career in respect of their scores on Verbal Intelligence.

**Results of Analysis of Variance for five groups of senior secondary school students exhibiting different strengths for Science and Technology career preference in respect of their scores on Verbal Intelligence**

| Source | df | Sum of Squares | Mean Squares | F-Value |
|--------|-----|----------------|--------------|---------|
| Between Groups | 4 | 1076.6133 | 269.1533 | 1.74* |
| Within Groups | 70 | 10850.6667 | 155.0095 | |
| Total | 74 | 11927.2800 | | |

* Not Significant at 0.05 level of confidence

It is revealed from Table 3.3 that F-value came out to be 1.74 which is not significant at 0.05 level of confidence. This indicates that five groups of senior secondary school students exhibiting different levels of fondness for Science and Technology career do not differ significantly with respect to their mean scores on Verbal Intelligence. Hence, the hypothesis that "Five groups of senior secondary school students exhibiting different levels of fondness for Science and Technology career will differ significantly with respect to their mean verbal intelligence" was rejected.

Hence, it may be said that senior secondary school students possess more or less similar level of verbal intelligence irrespective of their level of fondness for Science and Technology career.

**Conclusion Of The Study:** The present study deals with the relationship of career preference and verbal intelligence among senior secondary school students. The findings of the present study indicates that Senior secondary school students possess more or less similar level of verbal intelligence irrespective of their level of fondness for Science and Technology career.

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