



EFFECT OF SOCIO-ECONOMIC STATUS ON GENERAL ABILITY OF TRAINEES OF B.ED. COLLEGES OF KARNATAKA

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1. INTRODUCTION:

An illustration of Spearman's two-factor intelligence theory. Each small oval is a hypothetical mental test. The blue areas show the variance attributed to s , and the purple areas the variance attributed to g . Spearman, who was an early psychometrician, found that schoolchildren's grades across seemingly unrelated subjects were positively correlated, and proposed that these correlations reflected the influence of a dominant factor; which he termed g for "general" intelligence. He developed a model in which all variations in intelligence test scores are explained by two factors. First, a factor specific to an individual mental task: the individual abilities that would make a person more skilled at a specific cognitive task. And second a general factor g that governs performance on all cognitive tasks. The accumulation of cognitive testing data and improvements in analytical techniques have preserved g 's central role and led to the modern conception of g . According to the American Psychological Association, a hierarchy of factors with g at its apex and group factors at successively lower levels is the most widely accepted model of cognitive ability. Other models have also been proposed, and significant controversy attends g and its alternatives.



1.1. Mental testing and g :

The abstraction of g stems from the observation that scores on all forms of cognitive tests correlate positively with one another. g can be derived as the principal factor from cognitive test scores using the method of principal components analysis or factor analysis. The relationship of g to intelligence tests maybe more readily understood with an analogy. Irregular objects, such as the human body, are said to vary in "size". Yet no single measurement of a human body is obviously preferred to measure its "size". Instead, many and various measurements, such as those taken by a tailor, may be made. All of these measurements will be positively correlated with each other, and if one were to "add up" or combine all of the measurements, the aggregate would give a better description of an individual's size than any single measurement. The method of factor analysis allows this. The process is intuitively similar to taking the average of a sample of measurements of a single variable, but instead "size" is a summary measure of a sample of variables. g is like size, in that it is abstracted from various measures (of cognitive ability). Of course, variation in "size" does not fully account for all variation in the measurements of a human body. Factor analysis techniques are not limited to producing single factors, and an analysis of human bodies might produce (for example) two major factors, such as height and girth. However, the scores of tests of cognitive ability do in fact produce a primary factor, g .

2. REVIEW OF RELATED LITERATURE:

- 1) James L. Fozard, Ronald L. Nuttall (August 1971) *General Aptitude Test Battery scores for men differing in age and socioeconomic status*. Administered the **general** aptitude test battery (gatb) to 1,146 employed and retired 28-83 yr. Old men. Ss were above average in physical health. Descriptive statistics, representing 4 **socioeconomic status** (ses) groups, and 6 age levels were presented. Analyses of aptitude and subtest scores indicate significant declines with increased age and lower ses groups. There were no statistically significant interactions between age and ses effects: those abilities most affected by age were least affected by ses and vice versa.
- 2) A.J. Cropley (December 1964) *Differentiation of abilities, socioeconomic status, and the WISC*. The study investigated the effect of an increase in age on the factor structures of the subtests of the WISC, and the relationship between subtest scores and socioeconomic **status** (SES). The scores of 70 Ss, tested at ages 10 and 12, were factor analyzed and structures at the 2 age levels compared. The sample was also divided into high and low SES groups, and subtest means calculated for each group. At both age levels, between-group mean differences were significant at or beyond the .05 level of confidence in the case of verbal subtests, while factor structures, which were similar, indicated a trend towards integration of abilities. The structures defined 2 main factors, identified as verbal and performance IQ, respectively.
- 3) Luis M. Laosa (December 1984) *Ethnic, socioeconomic, and home language influences upon early performance on measures of abilities*. Administered the McCarthy Scales of Children's Abilities to 84 Chicano and 87 non-Hispanic White Ss (aged 2 yrs 6 mo) to examine the levels and profiles of performance in 5 ability areas (verbal, reasoning, quantitative, memory, and motor). Data on family and language characteristics were obtained by individually administered interviews of mothers (Chicano mothers' mean age 28.4 yrs, non-Hispanic mothers' mean age 30.7 yrs) in their own homes. Results show ethnic group differences in (1) the absolute levels of performance and (2) the shapes of the profiles formed by the configuration of performance across the various ability areas. Chicanos' average performance was poorer on measures of verbal and quantitative ability and short-term memory. Analyses showed that these differences can be explained on the basis of the relatively low SES level and language minority **status** that characterized a disproportionately large number of Chicano families. Tests of regression parallelism in MANOVA arc appended.

3. OBJECTIVES OF THE STUDY:

To examine the effect of socioeconomic status on General ability of college students.

4. HYPOTHESIS:

1. H_01 : There will be significantly effect of socio-economic status on General ability of male college students.
2. H_02 : There will be significantly effect of socio-economic status on General ability of female college students.
3. H_03 : There will be significantly effect of socio-economic status on General ability of rural college students.
4. H_04 : There will be significantly effect of socio-economic status on General ability of urban college students.
5. H_05 : There will be significantly effect of socio-economic status on General ability of college students.

6. METHOD:

6.1. Sample:

For the present study 150 of college students were selected from various Colleges affiliated to university of Davanagere, Davanagere. The effective sample consisted of 150 subjects, out of whom 50 subjects were High Socioeconomic status, 50 subjects were Middle Socioeconomic status and 50 subjects were Low Socioeconomic status. The age range of subjects where 19 to 22 years.

6.2. Tools:

Socio economic status scale: This is short scale developed by Janbandhu. It consists of fifteen items only which demand factual information about the subject's socio economic background.

Multi Assessment Personality Series (MAPS): This scale was constructed and standardized by Psy Com. Measuring for general ability. It consists 147 complete sentences and each item is provided three alternatives the subjects had to select one of the three alternative and complete sentences this test highly reliable and valid.

6.3. Procedures of data collection:

Each of the one instruments could be administered individuals as well as a small group. While collecting the data for the study the later approaches was adopted. The subjects were called in a small group of 20 to 25 subjects and there seating arrangements was made in a classroom. Prior to administration of test or scale, through informal talk appropriate rapport form. Following the instructions and procedure suggested by the author of the scale and tests, test were administered and field copies of each test was collected. Following the same procedure, the whole data were collected.

6.4. Variables of the study:

- a) Independent Variable: General Ability
- b) Dependent Variable: Socio economic status
 1. High
 2. Middle
 3. Low

7. Data analysis and interpretations:

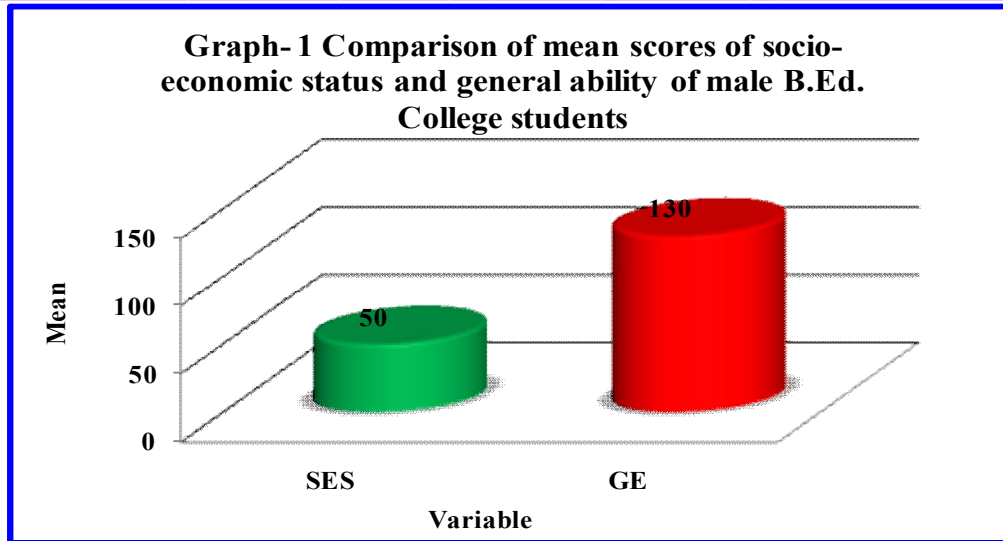
Hypotheses wise analysis of the data:

- 1) H_01 : There will be no significantly effect of socio-economic status on General ability of male college students.

Table-1: Mean, S.D. and t-value mean scores of socio-economic status and general ability of male B.Ed. College students

Category	Variable	Mean	SD	T	P
Male	SES	50	6.32	4.512	0.01**
	GE	130	7.24		

Table-1 shows that the calculated t- value was 4.512, it means mean scores of socio-economic status and general ability of male B.Ed. College students was significant. Therefore null hypothesis-1 was rejected and alternative hypothesis accepted i.e there is significant significantly effect of socio-economic status on General ability of male college students. Means positively correlation between socio-economic status and general ability of male B.Ed. College students

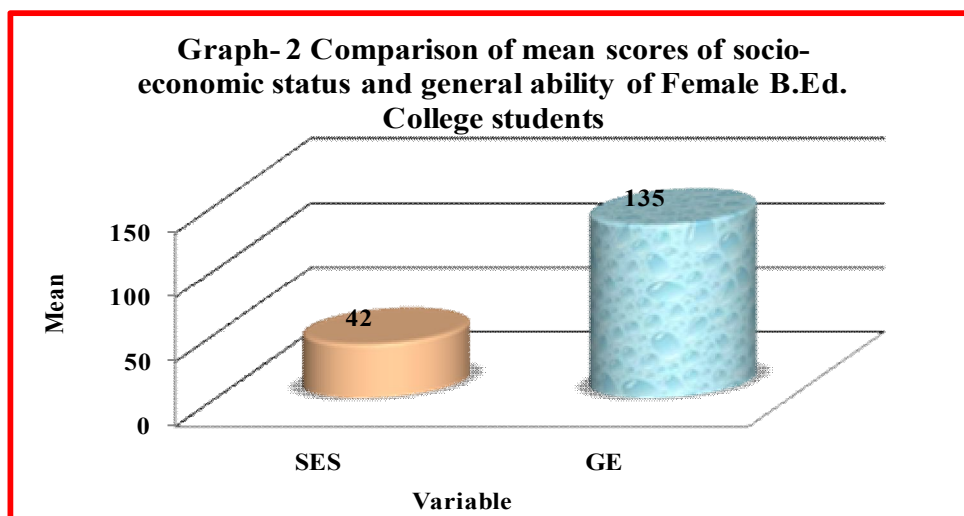


2) H_0 : There will be no significantly effect of socio-economic status on General ability of female college students.

Table-2: Mean, S.D. and t-value mean scores of socio-economic status and general ability of Female B.Ed. College students

Category	Variable	Mean	SD	T	P
Female	SES	42	5.43	3.152	0.01**
	GE	135	6.24		

Table-2 shows that the calculated t- value was 3.152, it means mean scores of socio-economic status and general ability of female B.Ed. College students was significant. Therefore null hypothesis-2 was rejected and alternative hypothesis accepted i.e there is significantly effect of socio-economic status on General ability of female college students. Means positively correlation between socio-economic status and general ability of male B.Ed. College students.

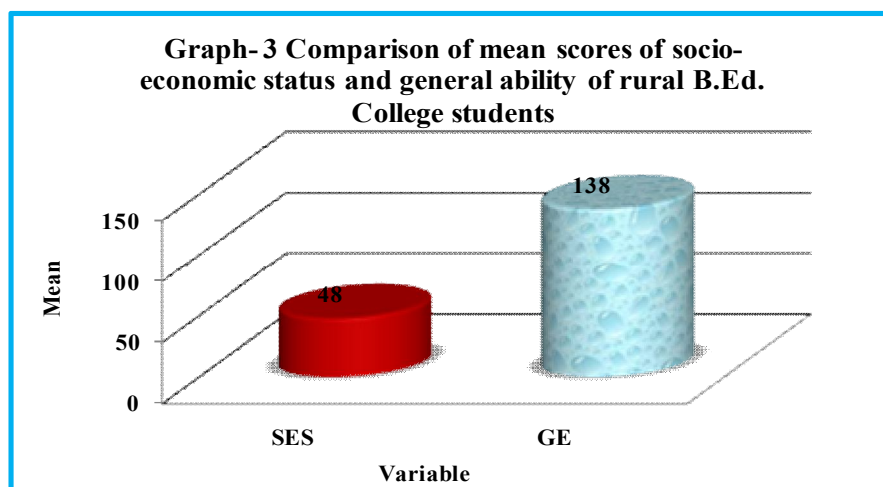


3) H_03 : There will be no significantly effect of socio-economic status on General ability of rural college students.

Table-3: Mean, S.D. and t-value mean scores of socio-economic status and general ability of rural B.Ed. College students

Category	Variable	Mean	SD	T	P
Rural	SES	48	5.231	4.55	0.01**
	GE	138	7.13		

Table-3 shows that the calculated t- value was 4.55, it means mean scores of socio-economic status and general ability of rural B.Ed. College students was significant. Therefore null hypothesis-3 was rejected and alternative hypothesis accepted i.e there is significantly effect of socio-economic status on General ability of rural college students. Means positively correlation between socio-economic status and general ability of rural B.Ed. College students

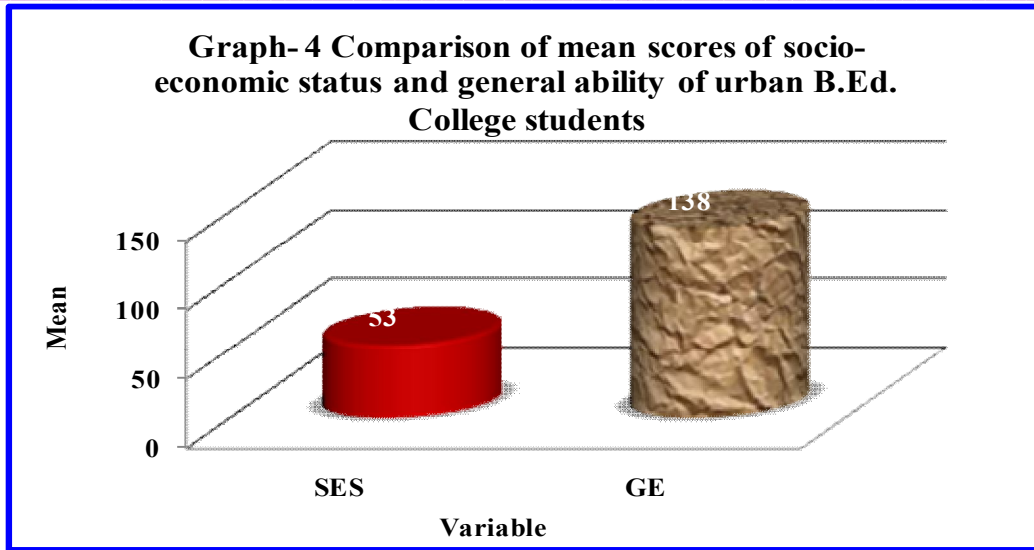


4) H_04 : There will be no significantly effect of socio-economic status on General ability of urban college students.

Table-4: Mean, S.D. and t-value mean scores of socio-economic status and general ability of urban B.Ed. College students

Category	Variable	Mean	SD	T	P
Urban	SES	53	6.211	4.32	0.01**
	GE	138	5.423		

Table-4 shows that the calculated t- value was 4.55, it means mean scores of socio-economic status and general ability of urban B.Ed. College students was significant. Therefore null hypothesis-4 was rejected and alternative hypothesis accepted i.e there is significantly effect of socio-economic status on General ability of urban college students. Means positively correlation between socio-economic status and general ability of rural B.Ed. College students



5) H_5 : There is no significant difference between socio-economic status (High, Middle & Low) and general ability

Table-5: One Way ANOVAs Summary

Sources ANOVAs	Ss	df	Ms	F	P
Between Group Ss	502.24	2	251.12	86.59	0.01**
Within Group Ss	426.72	147	2.90		
Total Ss	928.96	149			

The results related to the hypothesis have been recorded. The difference between the Between Group Ss and Within Group Ss is highly significant $F= 86.59$. $df=147$. Thus the hypothesis is positively effect of socio-economic status on General ability of college students was accepted. Means positively correlation between socio-economic status (High, Middle & Low) and general ability.

8. FINDINGS:

1. There is significant significantly effect of socio-economic status on General ability of male college students
2. There is significantly effect of socio-economic status on General ability of female college students
3. There is significantly effect of socio-economic status on General ability of rural college students
4. There is significantly effect of socio-economic status on General ability of urban college students
5. There is no significant difference between socio-economic status (High, Middle & Low) and general ability

9. REFERENCES:

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