TECHNICIANS IN ENIGMA
A PERSONALITY ASSESSMENT STUDY

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Introduction

Industrial organizations often demand that the pass outs of technical institutes (technicians) should not only be able to supervise the technical work but also they should be able to manage the things as per the time to time emerging needs of the industries. Similarly the technicians also feel a gap between what they learn in the institutions and what they have to practice in the industries. This leads them to a situation for tackling, of which they have not been trained. The need is not only to develop expertise in technician but also to promote healthy relationship between the conduction of a particular job by a technician and then to enable him to enjoy it to the fullest extent.

It is observed that achievement and aptitude test do help in assessing what a man can do, but they fail in identifying what a man will do?

Psychologists feel that personality traits, creativity, learning styles and motivations etc. play a vital role in individual's working style.

The area of personality has been a focus of study and research for psychologists since many decades. There is a growing awareness among research workers that learning conditions which provide optimal learning opportunity for one student may not suit another with different personality traits.

The facts that individual differences in intelligence can not explain all or major differences in achievement, suggest that personality variable might play a significant role in learning situations.

Technician Education has been making significant contribution to India's economic development. Substantial diversification enhancement in production has been possible mainly because of the skilled man-power coming out of technical institutions. There are currently about six hundred institutions at technician level with an intake capacity of about 70,000 students per year.

Although the admission in technician course is based on Pre- Engineering-test examination merit, yet it is observed that the performance of some of these entrants is not satisfactory during the technician course. This problem of under-achievement is of much concern for developing countries like

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ours where available resources are meagre, and for development it is essential that available human potential be fully exploited.

Sample

A sample of 191 students was chosen from the final year male diploma students of Civil Engineering, Mechanical Engineering, Electrical Engineering and Electronics Engineering branches of three Polytechnics of the State of Madhya Pradesh, India. The stratified random sample from Polytechnics was drawn to obtain true representation of student population of Technician Education in Madhya Pradesh.

Tools

To undertake the study the battery of tools used consisted of (i) 16 P.F. Questionnaire developed by R.B. Cattell, (ii) Raven's Standard Progressive Matrices, (iii) Students Questionnaire developed by the authors.

Cattell's 16 P.F. Questionnaire was used to measure personality factors of students, Raven's Standard Progressive Matrices was used to categorise students on the basis of intelligence and Students Questionnaire collected data on socio-economic status of students and personal information.

Procedure

After completion of tests, each students responses were scored. The students were categorised on the basis of intelligence, socio-economic status and over-achievement / under-achievement. Intelligence scale and Socio-economic scale were further sub- divided into three and two such categories respectively.

The criterion to decide about over achievers, under achievers and average achievers was to rank - order their position in the Higher Secondary Examination and also in the first year examination of technician course.

Those students who improved their rank-order position by five ranks in first year technician course with respect to Higher Secondary Examination were considered as over achievers, and those who lost their rank order position by five ranks were termed as under achievers. Rest of the students who passed the 1st year examination were termed as average achievers.

Analysis of Data

The data was processed with the help of a computer to find out the mean and standard deviation of sten scores obtained on each of the sixteen personality factors for the following categories of students.

1. Intellectually Superiors.
2. Intellectually Superiors-Under Achievers.
3. Intellectually Superior-Over Achievers.
4. Under Achievers.
5. Higher Socio Economic Status.
6. Lower Socio Economic Status.

The processed data was analysed with the help of scale provided in the 16 P.F. answer sheet. Means of sten scores above and below average were interpreted to depict the personality of an individual.

Pearson's Product Moment Correlation was calculated between

achievement scores and the 16 personality factors. Also the personality profiles were plotted for following categories of students.

Fig. 1 (page no. 44)

1. Intellectually Superior-Over Achievers.
2. IntellectuallySuperior-Under Achievers.

Fig. 2 (page no. 45)

3. Over-Achievers.
4. Under-Achievers.

Fig. 3 (page no. 46)

5. Higher Socio Economic Status.
6. Lower Socio Economic Status

Conclusions

The conclusions drawn from these graphs are as under :

1. Intellectually superior students were found to be reserved, emotionally less stable, humble, sober, placid and relaxed. They were conscientious, also doubting, shrewd and controlled in behaviour.
2. Intellectually superior under achievers were found to be reserved, enomtionally less stable, humble, sober, shy, tough- minded, practical, conservative and group dependent. However they were more intelligent, conscientious, suspicious, shrewd and controlled.
3. Students belonging to higher SES (Higher Socio-Economic Status) were reserved, less intelligent, emotionally less stable, humble, sober, practical, relaxed and conscientious, suspicious and shrewd but controlled.
4. Students in lower SES (Lower Socio-Economic Status) class were found to be reserved, less intelligent, emotionally less stable, sober, practical and relaxed.
5. Under achievers were found to be reserved, less stable, humble, sober, practical and relaxed. However they were also conscientious, suspicious and controlled.
6. Over achievers were found to be less intelligent, emotionally less stable, humble, sober, practical relaxed, conscientious, suspicious, shrewd and controlled.
7. In case of higher SES group 'Conscientious' and 'Practical' traits helped in achievement.
8. In case of lower SES group none of the personality factors contributed to achievement.
9. For intellectually superior students 'practical' trait contributed towards their achievement.
10. For definitely above the average in intellectual capacity class none of the personality factors contributed for achievement.
11. In case of intellectually average class 'Shrewd' and 'Practical' trait helped in achievement.
12. For under achievers intelligence was

the only factor which helped in achievement.

13. For over achievers 'Practical' trait helped in achievement.

14. For average achievers however 'Conscientious' and 'Relaxed' trait contributed for achievement.

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Fig. 1

STANDARD TEN SCORE (STENS)

INTELLECTUALLY SUPERIOR UNDER ACHIEVEMENT

INTELLECTUALLY SUPERIOR OVER ACHIEVEMENT

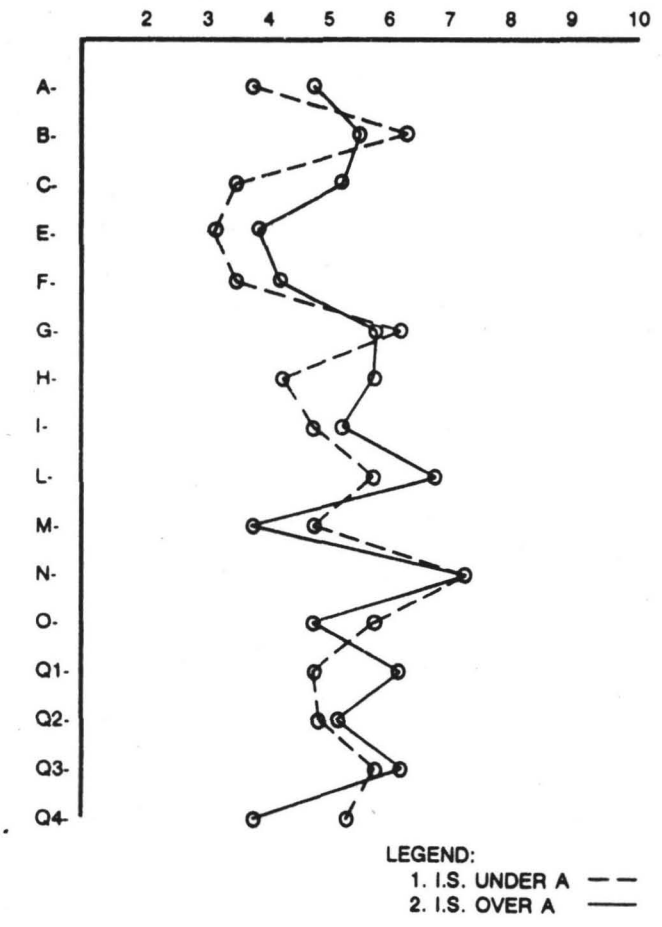

Fig. 2

STANDARD TEN SCORE (STENS)

OVER ACHIEVERS & UNDER ACHIEVERS

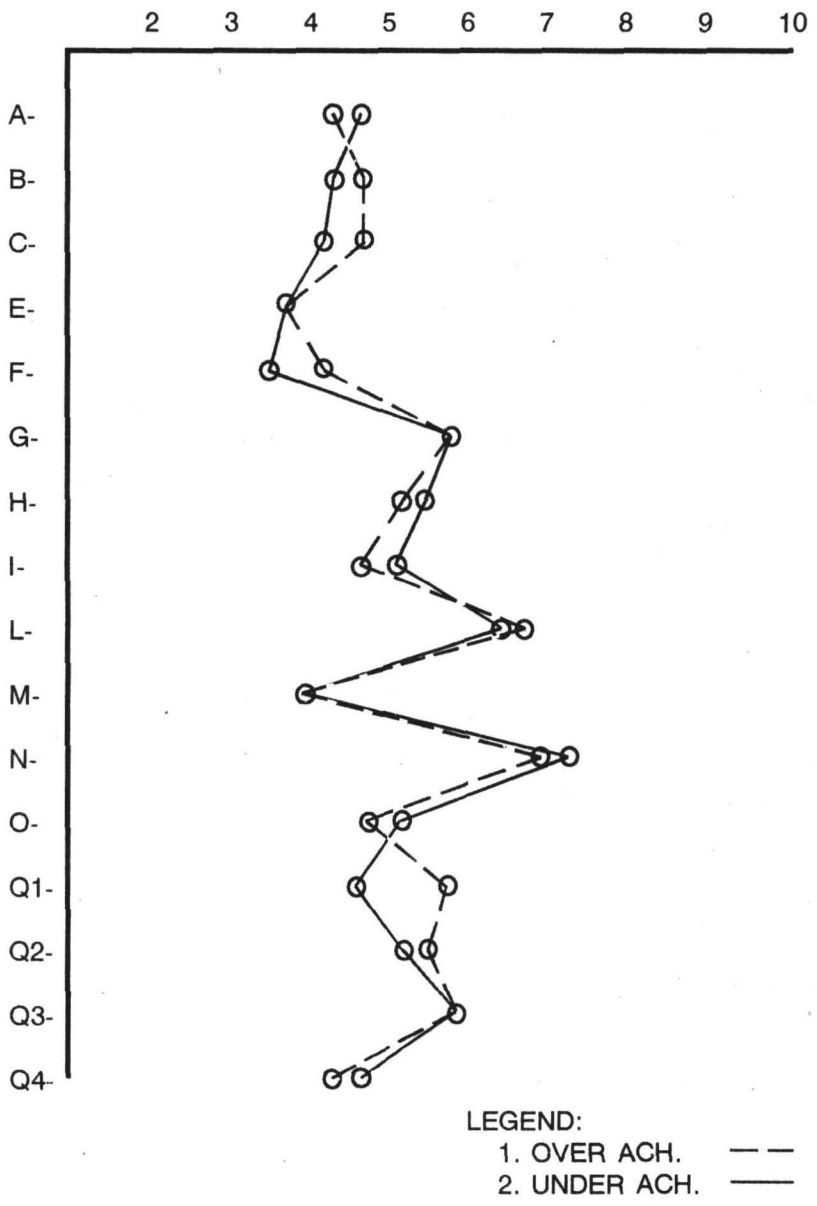

Fig. 3

STANDARD TEN SCORE (STENS)

HIGHER SES & LOWER SES