

COMPARISON OF THE PERSONALITY PROFILES OF OVER, UNDER AND EQUAL-ACHIEVERS

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In the present paper an attempt has been made to explore the personality profiles of three groups of subjects—under-achievers, over-achievers and equal-achievers classified on the basis of their relative performances in a knowledge test, to their potential ability. The profiles were based on the ratings given by two observers on 12 different traits. It was observed that the under-achievers were rated highest in all the traits by the raters while the over-achievers received the lowest ratings. The ratings varied significantly from trait to trait but variation was more or less identical, resulting similar profile pattern. —Editors)

Research workers in the field of Mental Measurements have put a great deal of effort to identify the factors underlying the academic achievement of students (Vidhu Mohan, 1972). Intelligence and Aptitude tests are often used to predict success in various academic fields. The predictive efficiency of these tests is considerably high but it is not a perfect one. They are able to account for only half of the variances in academic performance while the other half has yet to be explained.

That personality traits and other non-cognitive factors like attitude, motivation, study habits; home environment, economic status, etc., may account for a major portion of the variance in school learning and achievement, is realised through the work of the researchers like Child (1964), Nichols (1966), Myer (1952), Battle (1959), etc., in foreign countries and Agarwal (1977), Dhaliwal (1975), Sontakey (1976), etc., in India. They observed that personality factors like extroversion/introversion, motivation, emotional problems and environmental factors like family background, socio-economic status, etc., contributed significantly towards scholastic achievement. A marked difference in the personality pattern and values was also observed between over-achievers and under-achievers. Bhatnagar (1976) studied a group of under-achieving students; several factors causing under-achievement emerged out and these could be classified as follows : (a) Psychological-motivation, lack of self confidence; (b) Physical-weak eye sight, speech defect; (c) Financial-socio-economic status; (d) Educational-no guidance at home, poor study habits, etc. Most of these studies however, were conducted with school children as

subjects. Schuch (1978) on the other hand studied a group of adults and observed that achievement in personnel evaluation course was significantly correlated with the scores of Emotional Stability and also with those of Personal Relations.

The purpose of the present investigation was to draw up personality profiles for three groups of adults, viz.,

(a) Under-achievers, (b) Over-achievers, and (c) Equal-achievers and compare these profiles to identify the points of differences.

Subjects:

220 fresh engineering graduates constitutes the sample. They were all holding First Class degree and applied for the posts of Graduate Trainee Engineers in a large public sector organisation. These subjects had to pass a selection test comprising of one General Ability test and one Technical Knowledge test. On the basis of test performance they belonged to the top 25 per cent of the original group of applicants. These subjects were called for their personality assessment and were finally selected for the interview. Abilitywise and knowledge-wise most of them were above average in comparison with the original group of applicants.

Procedure :

These 220 subjects were assigned to different batches and completed a group Task and a Group Discussion. There were 21 such batches. The number of subjects per batch varied from 8 to 12. In Group Task each batch had to solve a problem as a group in a period of one hour. In Group Discussion they discussed for half an hour a specific topic provided by the examiner. The problems and the topics were changed so that the successive groups did not have any opportunity to know them beforehand. But the nature and complexity of the problem were so designed that they might be treated as parallel to one another.

Two examiners observed the participants during the entire one and a half hour period and rated the batch members on a five point behaviourally anchored scale. For successful completion of the task, planning, cooperation, initiative, etc., by the participants were called for. Analysing the interaction that took place among the participants during this period, the examiners assessed them on traits which can be classified as follows :

- | | |
|--------------------------|---------------------------------|
| (A) Cognitive traits | (1) Logical Reasoning |
| | (2) Breadth of Knowledge |
| | (3) Ability to plan |
| | (4) Ability to follow direction |
| (B) Non-cognitive traits | (1) Address/Manner |
| | (2) Articulation |
| | (3) Co-operativeness |
| | (4) Leadership |
| | (5) Application |
| | (6) Effective communication |
| | (7) Co-ordination |
| | (8) Involvement |

After the exercise were completed, the independent ratings of the two examiners were added together to obtain consolidated rating for each participant on the traits mentioned above.

Now, for each of the subjects, there were standardised scores for General Ability as well as Technical Knowledge tests. These 220 subjects were then classified as :

- (a) Over-achiever if their Technical Knowledge grade was higher than General Ability grade.
- (b) Under-achiever if their Technical Knowledge grade was less than General Ability grade.
- (c) Equal-achiever if their Technical Knowledge grade was same as the General Ability grade.

There were 77, 73 and 70 subjects in groups (a), (b) and (c) respectively.

Results and discussions :

The averages of the ratings on the twelve traits for the three groups viz., Over-achievers, Under-achievers, and Equal-achievers were computed and these are presented in Table 1 and the same is graphically presented in Figure 1.

It appears from the Table and the Figure that the under achievers received highest ratings which was followed by the equal-achievers. The over-achievers on the average had the lowest rating, This was

TABLE-1

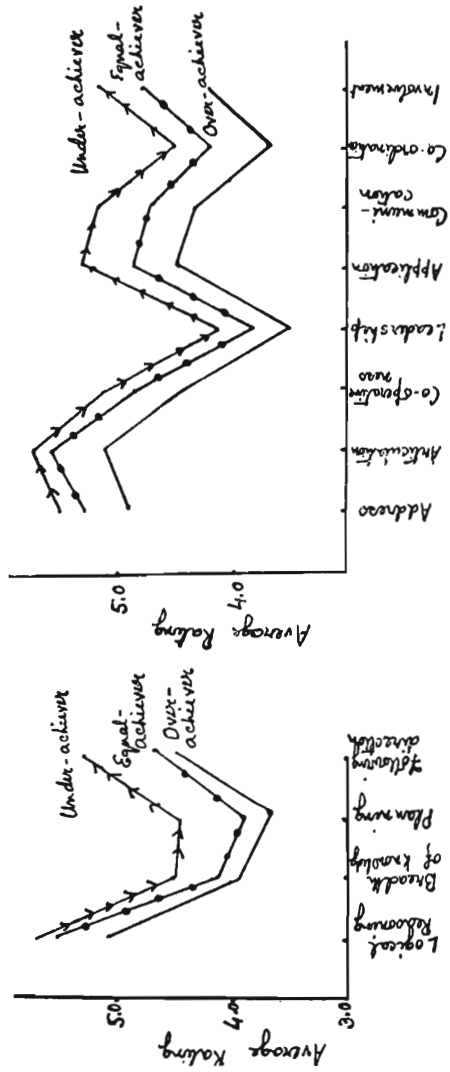
MEANS AND STANDARD DEVIATIONS OF RATINGS OBTAINED IN TWELVE TRAITS BY THREE GROUPS VIZ., OVER-ACHIEVERS, UNDER-ACHIEVERS AND EQUAL-ACHIEVERS

Trait	Over-achiever N = 73		Under-achiever N = 77		Equal-achiever N = 70	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
1. Logical Reasoning	5.25	1.45	5.79	1.48	5.60	1.57
2. Breadth of Knowledge	3.97	1.48	4.56	1.55	4.18	1.70
3. Planning	3.70	1.78	4.52	1.75	3.91	1.78
4. Following Direction	4.51	1.86	5.38	1.67	4.70	1.94
5. Address	4.93	1.19	5.53	1.43	5.33	1.35
6. Articulation	5.16	1.41	5.77	1.36	5.60	1.53
7. Co-operativeness	4.46	1.56	5.12	1.58	4.88	1.70
8. Leadership	3.51	1.73	4.19	1.86	3.86	1.78
9. Application	4.53	1.66	5.38	1.54	4.93	1.82
10. Effective Communication	4.38	1.61	5.21	1.69	4.78	1.72
11. Coordination	3.71	1.66	4.56	1.68	4.23	1.92
12. Involvement	4.30	1.78	5.28	1.73	4.86	1.81

true for all the twelve traits though the difference between the average ratings varied from trait to trait. The difference was maximum for traits like Planning, Following Direction, Effective Communication, Co-ordination and Involvement.

The average ratings also varied from trait to trait. It was highest for Articulation followed by Logical Reasoning. It was minimum for Leadership followed by Planning. Though one of the main causes of under-achievement is 'lack of motivation' or 'lack of energy', yet during this exercise the under-achievers did not exhibit that. With respect to traits like Application and Involvement, their average ratings were much above the corresponding averages of the over-achievers. So far as the pattern is concerned, the three profiles were almost identical; the only point of difference was the elevation; Similarity between

Figure 1



profiles was determined by calculating (a) elevation, (b) scatter, and (c) rank correlation. Elevation is the mean of the particular profile averages and scatter describes how dispersed scores are from the average i. e., from the elevation; rank correlation determines the similarity of the pattern or shape. These values were computed and are presented in Table 2.

TABLE 2
ELEVATION, SCATTER, SHAPE OF DIFFERENT PROFILES

<i>Groups</i>	<i>Elevation</i>	<i>Scatter</i>
Over-achievers	4.37	.52
Equal-achievers	4.74	.56
Under-achievers	5.11	.48
Rank Correlation	Over \times Under-achiever	.97
	Over \times Equal-achiever	.94
	Under \times Equal-achiever	.92

It shows that so far as the elevation is concerned there was difference specially between under and over-achievers but the scatters of the profiles were more or less same; The high values of the rank correlations indicated that shapes of the profiles were more or less identical.

The method of analysis of variance was employed for further analysis of the data. The design used for this analysis is suggested by Lindquist (1953) and is known as mixed design. In such a design some treatment comparisons are intra-subject and some are inter-subject. Individual difference where all the treatments can be applied to all the individuals is the most desirable one. But, that is not feasible in many practical situations and the present one is an example of the same.

Here, one subject cannot be classified as over-achiever, or under-achiever or equal-achiever simultaneously. Hence, if achievement has any effect on the subjects, it is not possible to control the subject difference in order to test the significance of the achievement effect. This becomes an inter-subject comparison. But, for each subject the ratings on different traits are available, and hence the subject difference can be controlled in comparing the trait effect and it comes an intra-subject comparison. The results of the analysis of variance are presented in Table 3,

TABLE-3
ANALYSIS OF VARIANCE

Source	d. f.	Sum of Squares	Mean Squares	F
Between-subjects	219	6005.69		
Group	2	245.24	122.62	4.62**
Error (b)	217	5760.45	26.55	
Within-subjects	2420	2089.75		
Trait	11	753.99	68.54	124.62**
Group X Trait	22	16.02	.73	1.33
Error (w)	2387	1319.64	.55	
Total	2639	8095.44		

The three groups varied significantly so far as the ratings on different traits are concerned. The under-achievers got the highest ratings while the over-achievers had the least. The average ratings on different traits also varied widely and this variation was highly significant. The interaction between trait and group was however, insignificant, which indicated that the profile patterns of the three groups were more or less identical, which was already indicated by rank correlations.

Discussion :

In summary, the present study explores the personality profiles of three groups of subjects viz., under-achievers, over-achievers and equal-achievers classified on the basis of their relative performance in a knowledge test to their ability. The profiles were calculated on the basis of rating of the observers on 12 different traits. It was observed that under-achievers were rated highest in all the traits by the raters among the three groups while the over-achievers got the lowest scores. Though the ratings varied from trait to trait but the variation was more or less identical in each group, keeping the profile pattern identical.

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