

1947

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Recommended Citation

Winberg, Wilma C. (1947) "Some Personality Traits of Collegiate Underachievers," *Proceedings of the Iowa Academy of Science*, 54(1), 267-270.

Available at: <https://scholarworks.uni.edu/pias/vol54/iss1/41>

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Some Personality Traits of Collegiate Underachievers

WILMA C. WINBERG

The purpose of this study was to identify certain measurable personality traits characteristic of scholastic underachievement from the results of selected personality tests.

Underachievement is defined in terms of a negative discrepancy between predicted and achieved grade point averages.

Measurable personality traits are defined in terms of item responses on three personality inventories of 543 items.

Current work on personality and personality testing tends to reveal that personality is environmentally conditioned. To date, most personality tests have been validated by the method of internal consistency and not against an external criterion. A preliminary survey suggested that academic underachievers are somewhat maladjusted. Hence, this thesis is based upon the hypothesis that there is a specific type of maladjustment designated as academic maladjustment, and that personality traits characteristic of this academic maladjustment can be identified by employing an external criterion of it—namely underachievement.

Discussion

From the registered freshmen class of 1945-46 at Iowa State College, the criterion group of 501 mile engineers was selected on the basis of cumulative averages limiting credit hours to 15-18 per quarter. Total percentile scores on the American Council on Education examination were obtained for this group.

The scores on the A.C.E. and the actual grade point average were found to have a correlation of $+.40 \pm .04$ for these 501 selected students. The regression of grade point on A.C.E. was made, from which grade points were predicted for this group based on their A.C.E. scores.

By inspection the criterion groups were then defined as follows:

1. *Underachievers*—those whose scores were above 100 on A.C.E. and below 2.00 in grade point.
2. *Normal* —those whose scores were 130 and above on A.C.E. and 2.60 and above on grade point.
3. *Overachievers* —those whose scores were 120 and below on A.C.E. and 2.60 and above on grade point.

The Minnesota Personality Scale by John G. Darley and Walter D. McNamara; the Minnesota Multiphasic Personality Scale by Hathaway and McKinley; and the Personal Check List by Owens and Holmes were given to these three groups.

The subscales on the above tests are as follows:

- I. Minnesota Personality Scale—Darley and McNamara
 - a. Morale

- b. Social Adjustment
 - c. Family Relationship
 - d. Emotionality
- II. Minnesota Multiphasic PPersonality Scale—Hathaway and Mc-Kinley.
- a. Hypochondriasis (Hs)
 - b. Depression Scale (D)
 - c. Hysteria (Hy)
 - d. Psychopatic Deviate Scale (Pd)
 - e. Interest (Mf)
 - f. Paranoia (Pa)
 - g. Psychasthenia (Pt)
 - h. Schizophrenia Scale (Sc)
 - i. Hypomania Scale (Ma)

From the initial group of 501 men, scores on the Darley for 50 Underachievers, for 60 Normals, and for 54 Overachievers were obtained. The scores on the Hathaway for 52 Underachievers, 59 Normals, and 59 Overachievers were obtained. The scores on the Personal Check List for 53 Underachievers, 61 Normals, and 55 Overachievers were also obtained.

Two item analyses were run on each test; the first to differentiate the item responses of "Underachievers" from those of "Normals" and the second to differentiate those of "Normals" from those of "Overachievers". Each item was treated in a 4-fold table using two achievement categories and two response categories as criteria of classification.

An example of each type of analysis may be seen in the following diagrams.

S	A	S	A
N	X	O	X
U X		N X	

N = Normal; U = Underachiever; O = Overachiever; S = Symptomatic; A = Asymptomatic.

Each table was set up with the expectation of a positive slope, i.e. on the assumption that the members of the Normal group are better adjusted than the Underachieving group; the Normals are expected to give more asymptomatic responses than the Underachievers. As a corollary to this hypothesis, the Overachievers are expected to be at least as well adjusted as the Normals and therefore should give more asymptomatic responses than the Normal group.

A tetrachoric correlation was applied to each of these tables and a correlation coefficient of $\pm .20$ was found to be the approximate 5% level of significance for the number of cases available in the selection of item responses indicative of the differentiation of Underachievers from Normals. This probability level was therefore adopted as a criterion for item selection.

Discussion

It may be recalled that the purpose of this paper is to diagnose *underachievement* and not abnormality in achievement. It may be assumed that the Overachievers have some traits in common with the Underachievers, and for this reason an Overachieving group was also employed as a sort of control group. The results show that the Overachievers and Underachievers did give similar responses on some items. These items are obviously of no diagnostic value insofar as underachievement is concerned. Thus, only items which had value in differentiating Underachievers from both Normals *and* Overachievers were used in the final selection.

It may be recalled that the Darley questionnaire allows for five possible responses. For treatment these were grouped in the following manner: number 1 and 2 scale values were grouped together to form one variable and number 4 and 5 scale values were also grouped together to form a second variable. The middle category was proportionately distributed to the 1 and 2 or 4 and 5 categories. This allowed a parallel form of analysis for all scales.

It is interesting to note that use of an external criterion to determine the diagnostic response actually reverses the direction of the scoring of some of the items on the Darley,-Minnesota Personality Scale—which were originally rationally derived.

Results

At present this problem is still in the research stage, but from results to date, it is evident that there *are* certain maladjustive personality traits characteristic of underachievement in an academic situation. Tentative results may be of interest.

In the Minnesota Personality Scale—Darley and McNamara, a few of the item responses found to be characteristic of Underachievers are listed below with their correlation coefficients. The correlation coefficient is indicative of the relationship between maladjustment and underachievement.

Underachievers		
Item No.	Responses Given	r =
40.	Violators of the law are nearly always detected and punished.72 (yes)
74.	If a party is dull, do you take the lead in enlivening it?42 (yes)
115.	Does either of your parents criticize you unjustly?.....	.69 (no)

In the Minnesota Multiphasic Personality Scale—Hathaway and McKinley, a few of the item responses found to be characteristic of Underachievers are listed below with their correlation coefficients.

Underachievers

Item No.	Responses Given	r =
61.	At times I feel like smashing things.24 (yes)
88.	Often I feel as if there were a tight band about my head.48 (yes)
245.	I liked school.65 (no)

In the Personal Check List—Owens and Holmes, a few of the responses found to be characteristic of Underachievers are listed below with their correlation coefficients. The underachievers responses are marked with an asterisk.

Item No.		r =
6.	I'm fairly even tempered.....I lose my temper a lot oftener than I used to.*28
18.	I seldom have a headache.....I have a lot of bad headaches.*40
19.	I'm a lot more irritable than I used to be*.....I may be a little more irritable than I used to me.28
21.	I am bothered by blanks in my memory*.....There's nothing wrong with my memory.55
22.	I wish I didn't have so many aches and pains*.....I have been feeling pretty good lately.28

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