Proceedings of the Iowa Academy of Science

Volume 41 | Annual Issue Article 100

1934

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Recommended Citation
Lauer, Alvhh R. (1934) "Measurement of Aesthetic Interests," *Proceedings of the Iowa Academy of Science, 41(1),* 275-279.
Available at: https://scholarworks.uni.edu/pias/vol41/iss1/100

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MEASUREMENT OF AESTHETIC INTERESTS

ALVHH R. LAUER

STATEMENT OF THE PROBLEM

Allport and Vernon[3] have considered Spranger's[2] classification of human interests as a basis for categories in the field of social psychology. The problems of the relative importance of heredity and environment have not been satisfactorily settled using any similar basis of classification. Strong's theory of interest measurement is based primarily upon the affective supremacy in the reaction tendency systems or habit patterns. The affective and volitional elements are placed above the cognition or meaning elements.

Meier and Seashore[1] have developed tests which presumably measure inherent artistic tendencies. Undoubtedly there is some training effect upon the reactions measured by such tests altho it would not be unreasonable to assume that such reactions are based largely upon inherent characteristics of the organism which comes to fruition under the influence of an artistic environment. Or perhaps we should reverse the proposition and consider the inherent tendency an attraction to such an artistic environment as being one of the deciding factors.

However it was not the purpose of this study to solve these ultimate and fundamental problems of influence priority. The chief objective was to develop a test of such a character that it might be used to measure the meaning elements of experience while neglecting the affective aspects so commonly found in tests of this type. It is assumed that what one is interested in will in some measure be reflected by his knowledge of the workers, accomplishments, and terminologies of that field.

Further, assuming Spranger's[2] classification to be a somewhat valid basis for measurement, the first step has been taken in the field of aesthetic interests. Similar tests may well be developed in the religious, political, economic, theoretical and social aspects of his theory.

METHOD AND PROCEDURE

Proceeding thus in an empirical way to determine the feasibility of measuring interests with the assumptions given, three forms

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of a 150 item test were developed by selecting relatively well known artists, musicians, writers, painters, sculptors with their works and certain terminologies relating to the field. As nearly as possible the different arts; painting, architecture, sculpture, music, drama and literature were balanced. Music was allowed the larger place partly because of the large number of terminologies and names available and partly because of the fact that more people have daily contact with musical subjects or activities. Form II was developed by paralleling every item of Form I as nearly as possible. There were a few exceptions due to later substitutions but the forms were found to be equivalent by giving to alternate rows in a large number of classes at the Ohio State University. Form III was parallel with Form II but in reverse order to avoid any tendency for cheating when the forms were given to alternate rows in the same class. No statistically significant difference was found between the forms by Fisher's method of analysis of variance.

The items were listed in two columns on each page followed by the letters P A S M D L N; to stand for painting, architecture, sculpture, music, drama, literature and non-artistic respectively. The examinee merely writes down the letter of the most closely associated art on a dotted line after each.

Information regarding age, home address, field of special interest, hobbies, academic status and amount of time devoted to study of aesthetic subjects was secured by having blanks on the first page properly filled out.

When odd and even items were correlated and corrected by use of the Spearman Brown formula $r_{nn} = \frac{nr}{1 + (n-1)r}$ gave a reliability coefficient of .91.

In all slightly more than 2300 tests have been given in 14 states including 9 universities, 3 smaller colleges and 4 high-schools. The data obtained on the first page of the test were coded and placed on punch cards for a more nearly complete analysis.

The present study consists of but 171 cases selected alphabetically from the freshman, sophomore, junior, senior, and graduate levels of students at Iowa State College. About the same number from each group was included. Grades and intelligence ratings were obtained and the following variables were intercorrelated as shown in Table I: age, size of town, Barr rating of the field of special interest, total amount of time the student had studied aesthetic subjects, total score on the aesthetic interest test, a mean

of three quarters college average and the intelligence ratings as determined by the Iowa State College test. It must be remembered that these grades were not freshman first quarter grades which in some measure may account for the lower correlations with intelligence.

RESULTS

Table I — Correlations of Aesthetic Interest and Other Variables

	A	St	Fi	Tr	Is	Ca
I	+.1124	+.2151	+.1634	+.0500	+.4731	+.3552
Ca	+.0807	+.0408	−.0152	+.0394	+.3822	
Is	−.0889	+.3128	+.1780	+.3069		
Tr	−.0417	+.1243	−.0218			
Fi	−.0591	+.1234				
St	−.0783					

Legend:

A = age
I = intelligence
St = size of town
Fi = field of interest
Tr = aesthetic training in months
Is = interest test score
Ca = college average (3 quarters)

Using the interest test score as a criterion, a multiple R of +.6455 was obtained. The beta values respectively were found to be as follows in order of importance:

Intelligence	+.3453
Grade average	+.2602
Training score	+.2556
Size of town	+.1784
Age	+.1157
Field of special interest	+.1057

Using the college average as a criterion the betas were found to be as follows:

Interest test score	+.3170
Intelligence test score	+.2180
Age	+.0922
Size of town	−.0992 *

* Minus with positive correlation coefficient.

In this case a multiple R of +.4494 was obtained.

The aesthetic interest test score would seem to have some merits in predicting success in college since it takes but 10 minutes, has no essential time limit and may be scored in 2 to 3 minutes. Note the method of marking is an improvement over the older methods of encircling the correct answer as represented by a symbol used in similar tests.

Consideration of the three forms reveals some startling things. Only a sampling of the 450 items covered in the three forms can

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Proceedings of the Iowa Academy of Science, Vol. 41 [1934], No. 1, Art. 100

be given. The subjects were not the same as used for the intercorrelations but were selected at random from test records made at Iowa State College and The Ohio State University.

Form I

	70 Boys		59 Girls	
	No. Missed	Per Cent	No. Missed	Per Cent
The Gleaners	27	38.4	20	33.8
Shaw	43	61.2	30	51.0
Kreisler	10	14.3	7	11.4
Venus de Milo	22	31.4	10	15.8
Mona Lisa	25	35.7	18	30.6
Sara Bernhardt	40	57.1	42	71.2
The Raven	28	40.0	17	28.8
Byron	38	54.2	22	37.3
Winged Victory	30	42.8	14	23.7
The Snow Image	46	65.6	35	59.3
Mean of above percentages		44.07		36.29

Form II

	63 Boys		50 Girls	
	No. Missed	Per Cent	No. Missed	Per Cent
Paderewski	2	3.2	1	2.0
Schumann-Heink	10	15.8	3	6.0
Aristotle	42	66.7	34	68.0
Strindberg	55	87.5	40	80.0
Bonheur	41	65.0	34	68.0
St. Gaudens	48	76.2	37	74.0
The Parthenon	27	38.0	15	30.0
Mean of above percentages		50.34		46.85

Form III

	67 Boys		48 Girls	
	No. Missed	Per Cent	No. Missed	Per Cent
Beethoven	6	8.9	0	0.
Madame Butterfly	34	50.5	32	66.5
The Horse Fair	40	59.8	26	54.2
Sir Francis Drake	24	35.8	19	39.6
Discus Thrower	20	29.8	18	37.5
Gutzon Borglum	53	79.0	36	74.9
Faerie Queene	35	52.2	25	52.1
Chaucer	15	22.3	9	18.7
Mean of above percentages		41.17		42.69

Mean of the three forms, i.e. samples given above:

Boys	*Girls*
N = 200	N = 157
Percentage missed = 48.8	Percentage missed = 44.8

Since the above are based on a few specific items they are only suggestive of the ultimate results.

CONCLUSIONS

1. The aesthetic interest test is closely related to intelligence but measures something besides intelligence.

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2. As a predictive measure for advanced college grades it seems superior to intelligence tests as such.

3. Requiring short periods for administration as well as for grading it offers some advantages in this respect as being more economical than intelligence tests.

4. The next closest related factors to aesthetic interest are training and size of the town. Grade average also correlates highly but this may be due to intelligence as a common factor in the two tests.

5. The reliability of the test places it among the better class of group tests, being + .91.

6. The results seem amenable to training and several forms would need be available for any repeated usage of the test.

7. On the average sex differences were not marked altho some evidence of such was noted in specific instances.

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