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THE DEVELOPMENT OF A MEASURE OF ATTITUDE TOWARD SCHOOL

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SUMMARY

The purpose of this factor analytic study was to examine an instrument that was developed as an attitudinal measure appropriate for elementary and junior high students. The instrument was needed to evaluate several programs, including ones involving poor readers.

INTRODUCTION

Khan (1966), interested in identifying attitudinal dimensions as predictors of academic achievement, used a research instrument suitable for junior high students. His research instrument incorporated items from several measures of attitude, study habits and motivation including the Brown-Holtzman Survey of Study Habits and Attitudes (1956)

While considerable research has been done using the Brown-Holtzman Survey of Study Habits and Attitudes (SSHA), it was developed primarily for college and senior high students. Also, Khan detected methodological errors and deficiencies in the SSHA so that he included in his study a Research Instrument composed of 102 items from an experimental form of the SSHA. These items had been adapted by McGuire for junior high students. Twenty additional items from a scale by Child, Frank and Storm (1956) were also included.

The measure used by Khan (1966) seemed appropriate to the present investigator's needs in terms of content but the vocabulary level and sentence structure were felt to be too difficult for most elementary and junior high students. Thus, the instrument was revised in terms of readability and at the same time an attempt was made to maintain comparable meaning between Khan's Research Instrument and the measure under study, the Habits of Study (the simplified vocabulary form).

PROCEDURE

The revised Habits of Study (HS) hopefully included the same content and was scored on a 1-5 Likert scale in the same manner as was Khan's instrument. The response choices were Seldom or Never, Sometimes, Quite Often, Most of the Time, and Almost Always. Since the Brown-Holtzman SSHA was scored differently for boys and girls, separate scoring keys for the Habits of Study were also developed for boys, girls, and a combined key for boys and girls. One hundred and twenty-two items were included but to maintain similarity with the SSHA scoring procedure only 63 items were scored.

The present initial factor analytic study includes 7th grade students from a moderate to high socio-economic background. One hundred and twenty-two boys and girls in 7th grade responded to the Habits of Study May of 1967. The converted SCAT scores were used in this analysis and the mean of 272.34 for the present sample converts approximately to the 68th percentile derived from 3469 students in 47 schools.

RESULTS

Raw score responses to the Habits of Study were analyzed with a principal axes-Varimax rotation computer program (Guertin and Bailey, 1970). There were very small discrepancies (approximately .02 to .04) between the sums of the squared principal axes loadings for each variable and the squared multiple R's used as communality estimates in the original correlation matrix. A 13 factor Varimax solution that accounted for 72.55% of the common variance and 57.24% of the total score variance was rotated by a Simple Loadings program (Jennrich and Sampson, 1966). The column sums of squared loadings for each factor for the 13 factor oblique primary simple loadings ranged from 1.38 to 3.45. Inspection of the items and the factors yielded 11 meaningful factors. Table 1 indicates the results of the oblique primary factor solution and includes only those items that yielded a coefficient of .40 and above. The factor loadings for factors 11 and 12 were less than .40.

A discussion of the possible psychological meaning of these 11 factors is essential. While any factor analysis of measurement items requires careful scrutiny, it seemed particularly important in the present study because of the sample school's philosophy of individualized instruction. Knowledge of the school's philosophy and programs helps make the table of factor loadings conceptually meaningful.

TABLE 1
Factor Loadings for 39 Items on the Habits of Study

No.	Item	Loading
Factor I:	Positive attitude toward school and teachers.	
21	I feel that teachers try to give the same amount of attention and help to all their students.	.68
22	The pictures, examples and stories given by teachers are interesting and easy to understand.	.67
20	When I am having trouble with my school work, I try to talk it over with the teacher.	.66
55	I feel that students can be expected to like most teachers.	.49
2	Whether I like a subject or not, I still work hard to make a good grade.	.47
18	I believe that teachers secretly enjoy giving their students a hard time.	-.45
Factor II:	Test anxiety and conscientious planning.	
56	At the beginning of a study period I plan my work so that I will use the time in the best way.	.87
10	I am afraid and upset when taking a test, and I cannot answer questions as well as I should.	.72
9	Lack of interest in my school work makes it hard for me to keep my mind on reading.	.44
54	If time is left, I take a few minutes to check over my answers before turning in my test paper.	.43
43	I complete my homework on time.	.40
Factor III:	Avoidance of school work.	
35	I feel like skipping school when there is something else I would rather do.	.51
29	I feel that teachers make their subjects too hard for most students.	.47
23	The reason I do poorly on tests is that I find it hard to think clearly and plan my work within a short time.	.44
19	I think that teachers usually talk too much.	.43
60	Above all, I want to have a happy, successful career.	.40
Factor IV:	Lack of interest in school work.	
38	I waste too much time talking, watching TV, listening to the radio, going to the movies, etc., for the good of my studies.	.77
27	I put off doing my written work until the last minute.	.42
9	Lack of interest in my school work makes it hard for me to keep my mind on reading.	.40
Factor V:	Lack of school success.	
59	I dislike the things one has to do to successfully finish some hard task.	-.70
32	I think it might be best for me to drop out of school and get a job.	.59
26	I am unable to study well because I get restless and have the blues.	.41
Factor VI:	Negative attitude toward formal academic requirements.	
41	I believe that teachers give tests on purpose on the days following parties and ball games.	.50
53	I am careless of spelling and the rules of English when answering test questions.	.46
5	My teachers say my written reports are written too quickly or are poorly planned.	.45
62	I feel that in our schools too much importance is put on getting top grades.	.43
Factor VII:	Study habits.	
48	With me, studying is sort of hit-or-miss, depending on the way I feel.	.73
8	I give special attention to neatness of themes, reports, and other work to be turned in.	.42

TABLE 1
(Continued)

No.	Item	Loading
Factor VIII:	**Effort but lack of understanding and comprehension**	
44	I find it hard to pick out the important points of a reading lesson that may later be asked on a test.	.62
30	I try to be really interested in every subject I take.	.46
12	When explaining a lesson or answering questions, my teachers use words that I do not understand.	.41
45	When reading a long lesson, I stop now and then to remember what I have read.	-.40
Factor IX:	**Dissatisfaction and desire to escape.**	
6	I think that teachers like to show who's boss too much.	.48
1	My teachers make their subjects interesting to me.	-.46
33	I skip over the figures, graphs, and tables in a reading lesson.	.42
60	Above all, I want to have a very happy, successful career.	.41
Factor X:	**Distractability.**	
15	Thinking about something else keeps me from paying attention while I am studying.	.77
34	After reading several pages of a lesson, I am unable to remember what I have just read.	.39
Factor XI:	**Intrinsic value of education.**	
61	Wanting to "get ahead" drives me to try to do greater things.	-.40
52	I keep my lessons up-to-date by doing my work every day.	.40

The intercorrelations of oblique primary factors were generally low. Only Text Anxiety (2) and Distractibility (10) had a value above .30, and it was only .31. Only 10 other pairs of factors had correlations as high as .20.

DISCUSSION

The content and the items for factor I and II point consistently and collectively to a positive attitude toward school (factor I) and test anxiety and conscientious planning (factor II). Not all of the factors had such apparent meaning.

Four of the five items for factor III appear to consistently represent a negative attitude toward school and rationalization for such an attitude. But Item 60 seems to be completely opposite. However, with further consideration of the collective meaning of the other items and inspection of the intercorrelations, Item 60 (relating to a desire to have a happy, successful career) may firm up the negative attitude toward school and represent day-dreaming or a desire for escape from school problems. Thus, the factor could represent a negative attitude and the consequent desire to find a pleasant way out.

Factor IV indicates a lack of interest in school and an awareness of poor study habits. Whether the factor represents lack of interest with poor study habits as a reflection of non-interest or whether the inverse is true is problematical.

While factor V represents a negative attitude, it may also relate to personality characteristics either derived from school or previously present in a student's psychological structure. Two of these items (Items 32 and 26) seem to reflect a defeated attitude more than a purely negative one. This factor may relate to personal problems or personality difficulties of a specific nature or to problems of adolescence in general. The negative factor loading of Item 59 may also be a result of a skewed item or an ambiguous or poorly worded one since the content is phrased negatively. The mean response for this item was "sometimes". Students may not have related a "hard task" only to school situations and studying. Further investigation of these items in a revised inventory may help clarify the meaning of the factor.

Factor VI seems to be consistent in negative attitude toward academic requirements. The correlations and items in factor VII are very possibly a result of the philosophical approach of the school from which the sample was drawn. Students were encouraged at this school to proceed with their learning at their own rate which could result in students studying in a "hit-or-miss" fashion or, at least, feeling that their study habits are "hit-or-miss". In relation to students working at their own rate and in their own areas of interest, heavy emphasis was placed on written reports as an indication of student progress. Hence, factor VII may be a reflection of the sample school's philosophy. However, since such educational beliefs and practices are currently prevalent throughout the country, the investigator feels these items should be included in a future examination of the inventory and further determination made of their status.

The investigator hypothesized that factor VIII indicated student effort in relation to understanding or comprehension.

Factor IX seems to yield items that have a negative approach to school. A correlation of .36 of Item 6 (a feeling that teachers like to show who is boss) with Item 60 which is concerned with the desire to have a "happy and successful career" may indicate a desire for role reversals or a usual youthful longing for the power of adulthood without too much of an extended effort. Hence, this factor and particularly

Item 6 may be an indication of students' internal and often veiled response to teachers and school. It is also interesting that the correlation of Item 60 relating to a successful career and Item 1 (teachers making subjects interesting to students) is very low; as is the relationship between Item 6 (teachers like to show who is boss) and Item 1.

The items in factor X with loadings of .40 and above indicate an inability to concentrate. They are related in a conceptual manner and will be included in the revised inventory.

Items in factor XI have conflicting factor loadings. However, these items may be a reflection of the school's philosophy since learning for its intrinsic value rather than for "getting ahead" (Item 61) is stressed at this school. Viewed in this way and with its negative factor loading, Item 61 could indicate a positive attitude or the intrinsic value of education.

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