REASONS FOR ATTENDING COLLEGE AS REPORTED BY FEMALE STUDENTS IN A SOUTHERN UNIVERSITY

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SUMMARY

A random sample of 791 female students at the University of Georgia were asked to select from a list of 20 possible motives, the five most important reasons why they decided to attend college, and the five most important reasons why they thought other students (male and female) had decided to attend. The reasons selected by the subjects for their own attendance were generally reflective of traditional societal values (e. g., occupational training, intellectual improvement). Motives attributed to other female students were generally self-indulgent (e. g., finding husbands, pleasing parents, having fun). Those attributed to male students included occupational training as the most important, followed by self-indulgent reasons (e. g., postponing settling down, having fun).

INTRODUCTION

In recent years, women have become increasingly concerned about changing and advancing their roles in society. This concern seems to be pervasive, extending to many aspects of society. The current study attempts to determine if such concerns are important in self-reported reasons why female students attend college.

METHOD

Seven hundred and ninety-one girls attending the University of Georgia were selected randomly. Of the 791 girls questioned, 28% were Freshmen, 13% Sophomores, 25% Juniors, 19% Seniors, and 16% were graduate students. Further, 21% were married, 55% lived in dorms, 10% in sorority houses, 26% in apartments, and 10% commuted. Also, of the total, 31% belonged to sororities. Thus the random sampling produced a reasonable cross section of college girls on the University of Georgia campus.

Other responses revealed that 33% had already changed their major fields at least once and 18% were contemplating such a change. Pessimism about college was registered by 27% who admitted having felt college was a waste of time, although only 12% still retained such pessimism.

The girls were asked their main reasons for seeking admission and undertaking cirricula ranging through arts and sciences, education, business, journalism, and home economics. In addition, they were asked what they believed were the reasons why others, of both sexes, go to college.

A list of 20 possible motives was presented to these college girls and they were aksed to select, in order of importance, the five which were (1) most applicable to them, (2) most applicable to other female students, and (3) most applicable to male students. The list of possible motives was as follows:

1. To learn a specific occupation
2. To improve your mind
3. To please your parents
4. To make the right contacts
5. To become a better world citizen
6. To be with your friends
7. To have fun
8. To succeed better than your parents
9. To postpone settling down
10. To judge right and wrong better
11. To appreciate the better things in life
12. To be able, perhaps, to improve society
13. To be able to rear your children better
14. To become more intelligent
15. To become more discriminating
16. To know more about life
17. To find a suitable husband or wife
18. To make use of an earned scholarship
19. To pledge a fraternity or sorority
20. To make an athletic team.

RESULTS AND DISCUSSION

The following is the list of reasons, in order of importance which the students claimed had influenced their own college-attendance decisions:

1. To learn a specific occupation
2. To improve my mind
3. To be able to rear my children better
4. To know more about life
5. To have fun

While the first four reasons reflect traditional societal values, the appeal of women's liberation seems to be served by the self-reported interest in a career as the primary motive for going to college. The possibility of improving intellectually, perhaps to compete on equal terms with similarly educated males, explains the second choice. The third reason, however, refers back to the traditional role of women. This objective might be very difficult to obtain since, with the possible exception of a home economics major, such training in college is almost nil. The fourth choice may also indicate a naive trust in what colleges can do. The fifth reason is possibly the most honest and realistic hope of all.

How truthful and unadulterated these selections may be cannot be accurately determined. A cross-check, however, in terms of a listing of motives these girls attribute to others of their own sex may establish some basis for evaluating the reliability of their own answers. This second list of reasons, again, in order of importance, reads as follows:

1. To find a suitable husband
2. To please their parents
3. To have fun
4. To be able to rear their children better
5. To pledge a sorority

It is obvious that something radically different emerges in the rationale assigned to other girls going to college. Missing are the career goal and the self-improvement aspects of college experience. In their place we see another very practical motive, husband hunting, and instead of self-improvement is self-indulgence (pleasing parents, having fun, and pledging sororities). Child-rearing moved one step further down in importance. Are these closer to the truth? Since reporting about others is not subject to the usual defense of dearly held self-concepts and self-ideals, greater freedom of response might result. Both lists reveal the practical as foremost in the thinking of these girls, followed by the ideal and the self-indulgent.

When asked to portray the motivation of college men the results were as follows:

1. To learn a specific occupation
2. To postone settling down
3. To have fun
4. To please their parents
5. To succeed in athletics

Although they list occupational selection as the most important, the primary concern which they attribute to males is self-indulgence.

The need to please one's parents which they attribute to other students of both sexes is absent from their own self-reported considerations. It is interesting to speculate about their refutation of parental influence in their own decisions but not in those of other students. College students are, of course, supposed to be mature, independent people. It would have been of added interest to know how many of those 33% who had already changed majors or of the 18% who were thinking of this possibility had consulted their parents or some other adult (in loco parentis) about the situation.

What, then, is to be concluded from these lists of motives assigned by the respondents to themselves and others present on this southern campus? Practical goals, self-improvement, traditional concepts associated with higher education and with the sex, and a dash of fun are intermingled. The self-reported motives for attending college seem to be reflective of the goals of women's liberation, while those attributed to others are not. Perhaps, however, the discrepancy can best be explained in other terms. It appears that it is easier to be objective (or truthful?) about others than about the self. Hence, it is quite possible that the reasons attributed to others are the most truthful reasons for these girls attending college.

If finding a husband and having fun are the reasons, then college may not be the best place to accomplish these goals. Husbands can be found in less expensive places than the university environment, perhaps while engaged in a career where women and men work in proximity. Learning how to raise children better from a book or lectures has not been proven more efficacious than the usual trial and error technique. Fun is ubiquitous. College, however, is where it's at and no decline in the clamor to be admitted can be foreseen. All we can do is wish them lots of luck.

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NON-COGNITIVE MEASURES RELATED TO ACADEMIC ACHIEVEMENT: PROVIDING DIRECTION FOR EXPANDING EVALUATION CRITERIA

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SUMMARY

The study investigated whether prediction of achievement test scores from IQ would be increased by adding some noncognitive test scores. The Multidimensional Assessment of Gains in School, High School Level, improved prediction in some areas with borderline statistical significance.

INTRODUCTION

The primary purpose of this study was to determine whether increased precision in prediction of high school student achievement could be obtained by the addition of non-cognitive predictors to more usual cognitive ones. The intermediate goals of the study were two:

1) To develop a measure of non-cognitive characteristics of high school students based on the expressed interests of the students themselves; and,

2) To demonstrate the increased precision to be gained for the prediction of academic achievement measures of high school students by the inclusion of measures of non-cognitive characteristics together with more usual intellective variables in regression equations.

Non-cognitive characteristics, in the context of this study, are measured aspects of an individual other than those identified with such variables as intelligence, reasoning, or intellectual aptitude; or, from the positive side, those associated with interests, preferences, attitudes, or motivations of an individual. It was hypothesized by these investigators that measuring such characteristics of a student would provide important information that is related to his academic performance and that inclusion of this information would permit better prediction of this performance.

INSTRUMENT DEVELOPMENT

A preliminary set of 400 interest, occupational, and activity item choices were gathered by discussions of students' interests with education and psychology faculty members, from high school counselors, parents, and high school students themselves. These choices were rated by 210 male and 224 female senior high school students on a preference scale of from 1 to 7 ("Dislike a lot" to "Like a lot"). These ratings permitted the choices to be arranged into groups of four, all with similar mean preference values. This method of grouping reduces the opportunity for a student to select an item because it is most socially acceptable since all in the set were rated as acceptable to a similar degree.

The final 100 sets of four choices each were administered to a total sample of 358 students (172 male and 186 female) drawn from grades 10, 11, and 12. Subjects were directed to choose from each set of four choices the one he/she liked the most, and from the remaining three choices the one he/she liked the least. A priori weights for choices within each item set were obtained from three sources: (a) a male graduate student in business administration, (b) a female graduate student in education (one of the investigators), and (c) a mathematical procedure which derived an ordered set of weights such that they produced the maximum variance for the item.

The 100 item sets assigned weights by each of the above three methods resulted in 300 item scores which were used to obtain intercorrelations to determine the factor structures for both the male and female forms. Through an iterative process of intercorrelations and factor analyses[1] a set of 10 subscales with high split-half reliabilities ($\geq .75$) and low subscale intercorrelations ($\leq .50$) were derived for both forms.[2]

Although complete descriptions of the subscales should be in terms of all of the items comprising them, together with their respective weights, labels suggested by a preliminary study of the items are provided for exemplary purposes in Tables 1 and 2.

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[1]Computer programs used in this procedure were developed for use in constructing the middle elementary school form of MAGS. The programs and procedures are unpublished but the test is available (Guertin, Graves, and Moffett, 1970).

[2]Subsequent refinement of these subscales and reduction in their numbers has been done based on further extended analysis, but the subscales used in this study are those as described herein.

TABLE 1

Subscale Identification - Male Form

Subscale	Description
I	Active exhibition vs. Creative seriousness
II	"Enjoy the good life" vs. Contemplative self-expression
III	Reclusive vs. Scientific adventure
IV	Excellence through authority vs. Manipulative work
V	Adult norms vs. Creative art
VI	Mathematical activity vs. Artistic sensitivity
VII	Thoughtful diligence vs. "Live it up"
VIII	Passive enjoyment vs. Admired adventurer
IX	Learn by going places vs. Learn from books
X	Stand out within the group vs. Academic success

TABLE 2

Subscale Identification - Female Form

Subscale	Description
I	Freedom from restrictions vs. Working to succeed
II	Excelling among peers vs. Artistic creativity
III	Musical excellence vs. Success in math
IV	Work to get ahead vs. Sharing happiness
V	Sharing boys' interests vs. Serious study
VI	Do a variety of activities vs. Relax
VII	Have fun vs. Enjoy books
VIII	Broad interests vs. Self interest
IX	Explore the unknown vs. Domestic interests
X	Study liberal arts vs. Rejection of requirements

PROCEDURE

The design of the predictive study included two phases. First, through the process of linear regression, subject-area achievement scores were predicted by a conventional cognitive measure. Secondly, the same predictions were made with the addition of scores on the subscales of the Multidimensional Assessment of Gains in School (MAGS): High School Level described above. Comparisons were made of the precision of these two methods for predicting several measures of achievement.

Approximately 90 male and 90 female students were randomly drawn from those attending four senior high schools in the large central-Florida school system of Orange County. Students were members of grades 10, 11, and 12.

Deviation IQ scores were obtained by administering the Otis-Lennon Mental Ability Test, Advanced Level, Form J (Otis and Lennon, 1967). The achievement level of the students in several subject areas was measured by the California Achievement Tests, Level 5, Form A, 1970 Edition (Tiegs and Clark, 1970). An additional criterion measure was a score derived from computing the ratio of an individual's total achievement battery score to his Deviation IQ score. It is an exact analogue of the usual achievement quotient (Age equivalent achievement/Age equivalent mental ability).

Prediction equations for each of the achievement criteria were calculated by use of a stepwise multiple linear regression procedure. The computer program used is part of BMD; Biomedical Computer Programs (Dixon, 1970), specifically, "BMD 02R: Stepwise Regression." Each achievement criterion was predicted on the basis of three sets of independent variables: (a) Deviation IQ scores plus nine random variables, (b) Scores on the 10 subscales of the MAGS-High School Level, and (c) Deviation IQ scores plus subscales scores of the MAGS.

RESULTS

Tables 3 and 4 contain the results of the regression analyses for the male and female students. Using Multiple R and R^2 as indices of prediction, it was found that increased predictive precision was obtained for nine criteria of the girls and five of the boys.

TABLE 3

Multiple Correlations - Males[3]

Criterion	Predictor Variable: IQ Multiple R	IQ Multiple Rcs	IQ Multiple R^2	MAGS Multiple R	MAGS Multiple Rcs	MAGS Multiple R^2	IQ and MAGS Multiple R	IQ and MAGS Multiple Rcs	IQ and MAGS Multiple R^2
Reading Vocabulary (N=52)	.87	.83	.75	.61	.47	.37	.87	.83	.76*
Reading Comprehension (N=52)	.80	.74	.64	.67	.57	.46	.85	.75	.71*
Language: Capitalization (N=54)	.56	.40	.32	.32	.00	.10	.45	.12	.20
Language: Usage (N=33)	.90	.85	.81	.54	.18	.29	.85	.73	.69*
Language: Spelling (N=40)	.83	.76	.69	.60	.37	.36	.87	.82	.76*
Language: Punctuation (N=30)	.80	.67	.64	.63	.29	.40	.87	.73	.76*
Math: Computation (N=51)	.80	.75	.65	.58	.40	.33	.83	.77	.68*
Math: Concepts (N=53)	.82	.78	.68	.44	.00	.19	.80	.75	.65*
Math: Prob. Solving (N=53)	.61	.47	.37	.70	.61	.49	.76	.67	.57*
Ratio: Ach. /IQ (N=54)	.55	.37	.30	.39	.22	.15	.49	.20	.24

[3]Multiple R corrected for shrinkage (McNemar, 1962, p. 184). An asterisk indicates an increase in R and R^2 above that in IQ prediction.

TABLE 4

Multiple Correlations - Female[3]

Criterion	Predictor Variable: IQ Multiple R	IQ Multiple Rcs	IQ Multiple R^2	MAGS Multiple R	MAGS Multiple Rcs	MAGS Multiple R^2	IQ and MAGS Multiple R	IQ and MAGS Multiple Rcs	IQ and MAGS Multiple R^2
Reading Vocabulary (N=52)	.80	.76	.64	.69	.62	.48	.85	.83	.73*
Reading Comprehension (N=67)	.87	.85	.77	.72	.65	.51	.88	.86	.78*
Language: Capitalization (N=68)	.44	.22	.19	.40	.11	.16	.49	.30	.24*
Language: Usage (N=52)	.80	.74	.64	.63	.49	.39	.79	.72	.62
Language: Spelling (N=56)	.73	.65	.53	.58	.44	.34	.74	.66	.55*
Language: Punctuation (N=47)	.76	.68	.58	.57	.36	.32	.78	.70	.61*
Math: Computation (N=66)	.33	.00	.11	.40	.09	.16	.49	.00	.16*
Math: Concepts (N=68)	.60	.50	.36	.58	.47	.34	.62	.52	.39*
Math: Prob. Solving (N=68)	.58	.47	.34	.64	.55	.41	.68	.59	.46*
Ratio: Ach. /IQ (N=68)	.39	.03	.15	.50	.34	.25	.51	.34	.26*

[3]Multiple R corrected for shrinkage (McNemar, 1962, p. 184). An asterisk indicates an increase in R and R^2 above that in IQ prediction.

A Chi-square test was computed on the total number of increases in R's (adjusted for shrinkage) based on prediction using MAGS plus IQ as compared with using IQ alone. It was concluded that a significant number of increases had occurred (p=.021). In no case, however, was the actual magnitude of any increase statistically significant. Analysis of variance calculated after transforming the R's to Fisher's z's also showed no significant effect based on sex of the students nor on the criterion measures.

CONCLUSIONS

Although for both male and female students, for the criterion of Mathematics Problem Solving, a sizeable increase in Multiple R was observed by inclusion of scores on the subscales of the non-cognitive measure, MAGS, the hypothesized significant increase in predictive precision by the addition of non-cognitive to cognitive measures was not supported. Even though many academic criteria were predicted with more accuracy with the addition of MAGS scores, the trend is not stable enough based on this first sampling to draw any strong conclusions.

DISCUSSION

The principal weakness of this research is in terms of the criterion measures used for prediction. Varying degrees of interdependencies among subtests of the achievement battery disclose that they provided not 10, but more like three, criteria. This conclusion was drawn from a cursory study of the factor structure of the subtests in which three factors were extracted and rotated: one for reading, one for mathematics, and one for language, and these not entirely independent of each other. Based on these observations, it is evident that suitable criterion measures should be sought as indicants of academic achievement in order to determine the benefits to be gained from using subscale scores of the MAGS or other non-cognitive measures as correlates of academic performance. Other achievement batteries, course grades, grade point averages, teacher ratings, should be investigated more stringently to determine their appropriateness as reliable achievement criteria.

Consideration also needs to be given to determining additional and improved measures of congitive characteristics of students. The Otis-Lennon Mental Ability Test (1967) correlated appreciably with students' reading skills but minimally with subscales of the MAGS. Measures of scholastic aptitude need to be investigated as well as non-verbal measures of intelligence in order to attempt to tap aspects of student cognitive ability not considered by the usual verbal intelligence measures. Of ever more importance for those persons deciding what are appropriate criteria of acceptable educational performance is to give serious thought to incorporating measures of non-cognitive characteristics such as those tapped by MAGS, not as predictors of established academic measures, but as replacements for them, since there are few if any persons satisfied that formal education should only produce persons that can perform adequately on achievement tests.

In a fragmentary manner, numerous characteristics of students have been considered as related to school achievement. Such aspects as socioeconomic level, characteristics of parents, personal biographical data of students, their educational history, and their activities outside of formal education seem to be reasonable correlates, and even confounders of, academic performance. These are seldom considered in an integrated manner in the evaluation of school programs and special projects. The availability of computers for data analysis makes the absence of such multifaceted research attributable to the lack of imagination or ingenuity on the part of the investigator or evaluator rather than a function of the restriction imposed by complex data analysis.

Since educators and educatees (classifications in a constant state of flux) function only in a condition of interactive elements, as many of these elements as possible need to be given consideration when attempting to determine the nature of variables affecting and being affected by the "educational processing" of students. Increased precision in measurement is essential for successful and meaningful progress with the myriad of unanswered, and sometimes unasked, questions in education.

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