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ABSTRACT

The use and validity of the tests of General Educational Development and the College-Level Examination Program, two measures by which adults with nontraditional educational backgrounds can demonstrate their previous educational achievement, are discussed. (AG)

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THE USE AND VALIDITY OF THE GED AND CLEP EXAMINATIONS $\qquad \qquad \text{IN HIGHER EDUCATION}^{\textcolor{red}{1}}$

Amiel T. Sharon

Educational Testing Service

A large segment of the American population continues its education outside of school following termination of formal study. More than 82 million adult Americans are expected to be involved in educational programs outside the traditional school system by 1976. Many individuals are not pursuing academic degrees but have more immediate vocational objectives. Their learning activities are conducted by business, government, unions, military services, correspondence schools, antipoverty programs, community organizations, and instructional television. Many are learning independently by reading books, going to museums and concerts, and in countless other ways.

The ever-increasing need for college graduates is encouraging many adults with nontraditional educational backgrounds to consider undertaking formal schooling which would lead them to a college degree. One way in which such people can demonstrate their previous educational achievements is by taking the General Examinations (GEs) of the College-Level Examination Program (CLEP) or the tests of General Educational Development (GED).

CLEP General Examinations

The GEs are intended to provide a comprehensive measure of undergraduate college achievement in five basic areas of liberal arts: English, natural sciences, humanities, mathematics, and social sciences-history. The tests

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are not designed to measure advanced training in any specific discipline but rather to assess a student's knowledge and comprehension of basic facts, concepts, and principles in each of the five subjects. The content covered by the GEs is similar to the content included in the program of study required of many liberal arts students in the first two years of college. It has been developed by committees of specialists in each of the subject-matter fields. The committees work with test specialists in defining the topics to be covered, reviewing the test specifications, and suggesting and reviewing test questions.

In addition to being used for granting college credit or placement for military service experiences, television and correspondence courses, and independent study, the GEs are used for a variety of other purposes at collegiate institutions. They are employed for guiding students into appropriate curricula of study; admitting and placing transfer students; assessing student growth in various curricula; and selecting students for upper division studies. Many colleges and universities are also using the examinations for selfstudy, to research specific questions about types of students, courses, or curricula. The questions which are asked range from "How do our sophomores compare with those at other colleges in terms of their liberal arts education?" to "Does exposure to our liberal arts courses result in greater knowledge as measured by these tests?"

A common procedure for demonstrating the appropriateness or validity of achievement tests, such as the GEs, is by means of content validation. The test content is developed systematically to be representative of the subject matter to be measured. In addition, empirical procedures such as item analysis aid the test specialists in deciding on which items to include



in the examinations. The present paper, however, will focus only on the empirical validity of the tests as demonstrated at various institutions of higher education.

Positive correlations between the GEs and overall Grade-Point Average (GPA), in most cases sophomore GPA, have been reported in studies conducted at six universities. Since GPA and the scores on GEs were collected simultaneously in these studies, these correlations represent the concurrent validity of the examinations. Invariably the English Composition Test was found to be the most valid one, with a median coefficient of .46. The rank order of the validity coefficients of the four other examinations was not consistent across the different studies. Median validities were Natural Sciences .40, Humanities .40, Social Sciences-History .36, and Mathematics .30. These correlations indicate that there is a moderately positive, but far from perfect, relationship between the tests' scores and grades. This result is not too surprising since grades in many courses are based on objective tests similar in content and format to the GEs.

Nevertheless, these results suggest that the tests can be used legitimately for granting course credit or placement in college.

The correlations between the GEs and grades in subjects corresponding to each test are in general no higher than the tests' correlations with overall GPA. This conclusion is based on studies conducted at two universities. A probable explanation of these results is that overall GPA is more reliable than subject GPA because it is based on a larger number of courses.

The validity of the GEs when taken at the end of the sophomore year, for predicting junior or junior/senior grades, is significantly lower than the concurrent validity of the tests. Median validity coefficients computed on the basis of three studies were English Composition .36, Humanities .28,



Natural Sciences .27, Social Sciences-History .26, and Mathematics .15.

Again, the English Composition and the Mathematics Tests appear to be the most and least valid tests respectively. The reason for the low validity of the Mathematics Test may be that mathematics plays a very minor role in courses taught in the last two years of college. The finding that the predictive validities of the GEs are lower than their concurrent validities indicates that the tests are less useful for guidance or prediction of success in upper-level studies than they are as measures of current achievement level.

There are two reasonable expectations or implicit assumptions underlying the College-Level Examination Program which have implications for the construct validity of the GEs:

- There is a gain in knowledge resulting from college instruction which can be measured by an examination.
- 2. The examinations employed to measure gain in knowledge are appropriate to the courses taught at the colleges.

Three studies have been reported on GE score gains resulting from college instruction. In general, significant gains were found on the tests when they were administered before and after students took a course or a group of courses. The lack of control groups in these studies, however, makes it difficult to determine whether the score gains were a result of instruction or simply a result of maturation or intellectual growth occurring over time.

The relationship of the GEs' scores to amount of previous instruction in a subject generally provides support for the construct validity of the examinations as measures of academic achievement. In one study, a positive relationship was found between two of the GEs and the number of credits



taken in corresponding subjects. In two other studies, positive relationships were found between the tests' scores and amount of formal education completed. A relationship, however, does not prove cause, and thus it cannot conclusively demonstrate that the scores are affected by instruction. Nevertheless, a lack of relationship between the GEs' scores and amount of previous instruction would have led one to question the validity of the tests.

Additional results relating to the construct validity of the examinations have emerged from the data collected with the national norming sample of approximately 2600 college sophomores. The scores of sophomores intending to major in different fields fell into expected patterns. The highest mean score on each of the five examinations was obtained by students intending to major in the field corresponding to the examination. For example, those intending to major in social sciences performed best on the Social Sciences—History Test while those majoring in humanities or fine arts scored highest on the Humanities Test.

One of the major target populations of the College-Level Examination

Program consists of mature adults who have not had any formal education in

college. The content of the GEs, however, is based on the program of study

offered to freshmen and sophomores attending liberal arts colleges who are

mostly in their late teens. Does the content or the format of the examinations

place the older candidates at a disadvantage?

An analysis of the scores of approximately 44,000 servicemen on the GEs suggests that the tests are no more difficult for the older than for the younger examinees. The oldest age group in this analysis, consisting of those of age 40 and over, was not the lowest scoring group on any of the examinations. In fact, this group had the highest mean score of any age group on the Social Sciences-History and Humanities Tests. These two tests appear to be quite



responsive to the accumulated value of life experience. The highest scores on the three other examinations occurred in the 22 to 24 age range. A limiting factor in the interpretation of this analysis is that the amount of formal education of servicemen at each age level was not known.

Unfortunately, there have been no studies on the comparative validity of the GEs for different types of students. If the relationship between the tests' scores and a criterion is different for various groups of examinees, then the tests may not be equally appropriate for all groups. It may be, for example, that speed is a relatively more important factor for adults than for younger persons, and it might consequently invalidate the tests as measures of achievement for adults.

In general, the research summarized provides support for the validity of the GEs as measures of academic achievement. Many of the studies reviewed, however, do not lead to definitive conclusions. Results showing score gains after course exposure and positive relationships between the tests and amount of previous instruction have alternative interpretations. Correlations between the GEs and college grades obtained concurrently are moderately positive, but the validities of the tests for predicting success in upper-level studies are significantly lower than their validities for assessing current achievement level. The research methodology for validating the GEs can be improved by employing criteria other than grades, by using control groups in score-gain studies, and by partialing out contaminating factors in correlational studies. Nevertheless, the relationships found between the GEs and certain relevant variables provide tentative support for the validity of the tests as measures of college-level achievement.



Tests of General Educational Development

The GED tests, like the CLEP General Examinations, are achievement tests designed to provide academic credit for knowledge gained outside of school. The tests are used primarily for granting high school equivalency certificates to non high school graduates. The significance of the GED testing program for higher education lies in the extensive use of the tests for the admission of the non high school graduate to college. A recent survey indicates that over 1600 colleges and universities are accepting satisfactory GED test scores as evidence of ability to undertake college work.

The Commission on Accreditation of Service Experiences is currently sponsoring a comprehensive study on the validity and impact of the GED as an instrument of admission to institutions of higher education. Some 1300 students accepted to a national sample of 34 colleges and universities on the basis of their GED scores are being followed-up. Although the study has not yet been completed, I would like to describe some preliminary results relating to a small sample of these students.

In-depth interviews were conducted with 30 non high school graduates who enrolled at four colleges after passing the GED battery. The sample consisted of 15 males and 15 females with a median age of 28.5. Most were freshmen or sophomores; five were not enrolled at the time they were interviewed.

Why did the subjects drop out of high school? The most frequent reason was the need to help support the family. Other reasons were boredom and lack of interest, marriage, lack of ambition, and personal problems with the family.



Why did they take the GED tests? Half the subjects stated that they took the tests in order to be able to go to college. Others took the tests because they were urged to take them by parents or relatives or because they simply wanted a high school equivalency certificate. Almost all subjects felt that the major effect of taking the tests was that they were able to enter college.

Most of the subjects did not deliberately prepare for the GED. Many attributed their success in passing the tests to life experiences such as reading newspapers, magazines, and books or to their limited high school education. Among those who formally prepared for the tests, the most frequent method of preparation was taking a special adult education GED course. Most subjects indicated that they scored better on the tests than they had expected.

About two-thirds of the subjects stated that the GED influenced their plans for the future. Several students mentioned that they could not have enrolled in a college without an equivalency certificate. Others indicated that they began to seriously think about college after passing the tests.

The course performance of the students in college can best be described as "fair". Most had grade-point averages between a B and a C. Half of the students had higher GPAs than the mean GPA of all students at their college. This level of achievement can be considered quite commendable when the fact that many of the subjects held full-time jobs is taken into account.

One-third of the subjects have dropped out of college for one or more semesters. All, however, have returned or were planning to return and continue with their studies. Withdrawing from college was most frequently caused by the need to earn more money for tuition.

All subjects felt that the GED was of great benefit to them and that other non high school graduates should have the opportunity to take the



tests. Nevertheless, some admitted having academic difficulties in college because of lack of background knowledge from high school, especially in mathematics.

The students' overall reactions to the GED might be best summed up by the statement of one of the students:

"The GED was a dream come true. I doubt if I would have given serious thought to attending high school for even the one year required to earn sufficient credit for a diploma. The opportunity to receive a diploma this way has definitely been the ticket to success for many others also."

It should be emphasized that the final evaluation of the GED must wait until the current study is completed. The results of this study are scheduled to be published in the Spring of 1972.

