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ENTRANCE AND PLACEMENT TESTING.
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WHILE REPORTS ON THE USE OF STANDARDIZED TESTS IN JUNIOR COLLEGES ARE COMMONLY TABULATIONS OF SCORES, SOME COLLEGES HAVE STUDIED TOPICS SUCH AS THE RELATIONSHIP OF TEST SCORES TO GENERAL COLLEGE ACHIEVEMENT, VALIDITY OF TEST SCORES IN PREDICTING SUCCESS IN SPECIFIC COURSES, AND EVALUATION OF CHANGES IN STUDENTS DURING THEIR COLLEGE EXPERIENCES. FEW STANDARDIZED TESTS ADEQUATELY MEET THE MULTIPLE NEEDS OF COMPREHENSIVE JUNIOR COLLEGES, AND LACK OF APPROPRIATE DATA PREVENTS MAXIMUM UTILIZATION OF THOSE WHICH ARE AVAILABLE. MORE EFFECTIVE USE OF TESTS WOULD RESULT FROM (1) DEVELOPMENT OF PROFILES WHICH DESCRIBE TEST PERFORMANCE OF CLEARLY IDENTIFIED GROUPS, (2) DETERMINATION OF RELATIONSHIPS OF SPECIFIC TESTS TO DESIGNATED CURRICULAR OBJECTIVES, (3) DEVELOPMENT OF METHODS FOR FORMULATING OR REVISING OBJECTIVES ON THE BASIS OF TEST RESULTS, AND (4) DESIGN OF PROCEDURES TO ALLOW FOR STATISTICAL STATEMENTS AND CONCLUSIONS. THIS DOCUMENT IS VOLUME 2, NUMBER 5 OF "JUNIOR COLLEGE RESEARCH REVIEW," JANUARY 1968. (WO)

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ENTRANCE AND PLACEMENT TESTING

The 1967 Junior College Directory gives the 1966 fall enrollment for junior colleges as 1,464,099; the total number of schools for early 1967 is 837. Each of these students will find his education directed to some degree by standardized tests. Due to the junior college's unique position and the diversity of its curricula, few tests are directly applicable since most published standardized tests were developed for the high school and four-year college (JC 660-269).

Standardized test information relating to junior college students is not widely available. The Clearinghouse for Junior College Information currently has twenty-one documents that deal specifically with test findings. Most of these documents are tabulations of student performance on standardized tests. A few deal with specific uses of standardized tests and relationships between standardized tests and curricular objectives.

Review: Interviews by Educational Testing Service reflect faculty and student interests in standardized tests (JC 660-205). To obtain information concerning faculty and student interest, staff members of sixty-three sampled junior colleges were requested to characterize their faculty and students in one of three categories descriptive of interest in obtaining test information; eager, some interest or little interest. Twenty-one percent of the schools reported students as "eager"; faculty in 56 percent and students in 24 percent of the cases were described as having "some interest"; that faculty and students had "little interest" was reported by 22 percent. Information on 22 percent of the junior colleges was not ascertainable.

Relationships between standardized tests and junior college achievement have been investigated by the American College Testing Program and the Educational Testing Service. American College Testing (ACT) data (JC 660-090), obtained from eighty-five junior colleges, were shown to have a significant positive relationship to freshman grades. A median correlation of .64 was found with overall freshman grades. Median correla-

tions for English, mathematics, social studies, and natural science were .62, .57, .61, and .61, respectively. These data indicate that, on the average, approximately 41 percent of the variance in freshman grades can be accounted for by performance on the ACT. The predictability of ACT varied from school to school and was found to be related to two factors, "Conventionalism," and "High Cost." High proportions of full-time students and faculty members, a long period of establishment, and a traditional academic orientation characterize the factor "Conventionalism." "High Cost" is indicative of high tuition charge. Tests administered at schools high on "Conventionalism" and low on "High Cost" had high predictability. Low "Conventionalism" and high "High Cost" were associated with low predictability.

A sample of 2,423 students who were tested with the Preliminary Scholastic Aptitude Test (PSAT) in 1960 were later studied by Educational Testing Service (JC 660-295). Of the total sample, 608 students spent their first college year at one of sixty-seven two-year institutions; an institution classified as a Type I college (two-year institution) in the Education Directory, 1961-1962. Each student was classified at the end of his first year as in "good standing" or in "academic difficulty," meaning academic probation. In general, there were greater proportions of students in "good standing" who scored high on the PSAT-Verbal; only 32 percent of the students in academic difficulty scored 40 or better.

The College of San Mateo has examined some specific relationships between entrance tests, the *School and College Ability Tests (SCAT)* and *Cooperative English [Placement] Tests*, and student achievement (JC 660-083). Using the first two hundred students on test records for the Spring of 1965 as a sample, the following findings were reported: (1) For the percentile range of 95 to 99 (both tests included), there was *no relationship* with grades requiring verbal skill; superior grades were most often obtained by

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students in the percentile range of 85 to 95. (2) Failure of students with high verbal aptitude in social science classes was negligible. (3) In a comparison of high verbal aptitude students with "average" students, little difference was noted in the frequency of failure in English 1A and foreign language classes. San Mateo, on the basis of their data, concluded that "verbal aptitude as measured by SCAT and the *Cooperative English* [Placement] Tests does not generally predict outstanding performance, especially not in those areas most demanding in verbal skills—namely English and foreign languages."

Little usefulness in predicting English 1 grades from SCAT scores was reported in a study by Los Angeles City College, California. The study (JC 660-055) sampled fifty-eight remedial English and 128 English 1 students. No usefulness was found in predicting remedial English grades. There was a significant positive relationship, a correlation of .52, between remedial English grades and scores on the English Expression: *Cooperative English Tests*. Another standardized test reported as useful with remedial placement as well as all entering students, is the New Purdue Placement Test (JC 670-153).

Often standardized test scores are combined with high school grade-point averages for increased accuracy in predicting college achievement. Garland Junior College, Boston, devised a formula which, for their curriculum, rather accurately predicted first semester grade-point averages for 101 sampled students (JC 660-149). Seventy-three percent of the averages were predicted with an error of .5 of a grade-point average or less. The formula resulted from a correlation study and involves Scholastic Aptitude Verbal and Mathematical scores, each multiplied by an empirically determined constant.

Seldom incorporated by junior colleges is the use of standardized tests for student evaluation. Yuba College, California, uses pre- and post-testing to assess student changes during the two years (JC 670-464). Initially the students are tested with the ACT. The post-test, required for graduation, is the General Education Test. Performance on both tests is recorded in average standard scores for English, mathematics, social studies, natural science and a composite of all subjects. Also listed are percentile rank equivalents of the standard scores for several comparison groups. This organization of data provides information concerning changes in students at Yuba College, how freshmen of a given year compare with the average Yuba freshmen, and how Yuba students compare with a national group and groups at other schools.

Harcum Junior College, Pennsylvania, evaluated a transfer curriculum via a pre- and post-test design (JC 670-512). Academic abilities and achievements of forty-three students were measured with the SCAT and *Sequential Tests of Educational Progress* (STEP). Forms 1A of both tests were administered during freshman orientation week. One month before graduation, alternate forms 1B were administered. A method to improve score reliability in repeated testing situations, based on norms of the test, was used in recording test performances. After noting percentile changes, compared with test norms, a conclusion of consistent educational progress in a two-year transfer curriculum was made.

Summary: The studies reviewed here represent attempts to use standardized tests for various purposes. As such, they are valuable points of beginning. Generally speaking, however, there are few standardized tests designed to meet the multiple needs of community colleges and a lack of specific data to afford full use of tests that are available. Greater specificity and usage could be obtained with the following: (1) profiles, graphical and statistical, describing test performance of clearly characterized groups; (2) relationships of given tests to designated curricular objectives; (3) methods for formulating or revising objectives on the basis of test results; and (4) designs and data procedures that allow for statistical statements.

Such information would eliminate much ambiguity from standardized testing. If test results are given for clearly characterized groups, the results can be more appropriately generalized to other groups with the same characteristics. Age and sex are needed descriptors, but results are more useful if other demographic and historical descriptions are given. Descriptions could also include performances on tests that measure factors other than the one in question. When a test score is reported as an indication of meeting an objective, often, the relationship between the test items and the objective is not explained, and the test usage is left with little support. This is particularly true of generalized objectives: for example, "to meet the needs of low-achieving students." Lack of objective-test relationships also limits the amount of instructional direction test scores give. Finally, when small differences in test scores are reported, as might be the case in a pre- and post-test situation, the importance of the difference is ambiguous unless statistical significance is reported.

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BIBLIOGRAPHY

- *JC 660-044 (ED 011-190)**
Analysis of SCAT Entrance Examination, Fall, 1964, by Ben K. Gold. Los Angeles City College. November, 1964. 18 p.
- *JC 660-055 (ED 011-192)**
Placement Criteria and Academic Performance in English 1 and 21, Spring, 1965, by Ben K. Gold. Los Angeles City College. January, 1966. 13 p.
- JC 660-060**
Analysis of SCAT Entrance Examination, Spring, 1966. (Counseling Center Research Study, No. 66-7), by Ben K. Gold. Los Angeles City College. May, 1966. 16 p.
- *JC 660-083**
High Verbal Aptitude and Grade Achievement, A Study of the Grade Achievement of 200 First-Semester College of San Mateo Freshmen Who Ranked High in Verbal Aptitude as Measured by the School and College Ability Tests and Cooperative English Tests, by Erwin Jost. College of San Mateo, Calif. July, 1966. 20 p.
- JC 660-084**
Correlation between English Ability and Success in Elementary Algebra at College of San Mateo, A Study. A College-wide Program for Upgrading Student Potential, a Proposal, by Roy H. Holmgren and Joseph A. Tovissi. College of San Mateo, Calif., 1966. 22 p.
- *JC 660-090 (ED 011-196)**
Academic Description and Prediction in Junior Colleges, by Donald P. Hoyt and Leo Munday. American College Testing Program, Iowa City, Iowa. February, 1966. 27 p.
- JC 660-099**
A Study of Factors Related to the Disposition of Probationary Students at Florissant Valley Community College, Fall, 1964, by Neal Hartman. 1965. 24 p.
- JC 660-149**
Validity Study of the SAT Scores and High School Grade Point Averages in Predicting Scholastic Achievement at Garland Junior College, by Caroline Jordan. Garland Junior College, Boston, Mass. July, 1964. 13 p.
- JC 660-205**
A Study of the Academic Ability and Performance of Junior College Students, by Dean W. Seibel. Educational Testing Service, Princeton, N.J. October, 1965. 46 p.
- *JC 660-296**
Testing Practices and Problems in Junior Colleges — A Survey, by Dean Seibel. Educational Testing Service, Princeton, N.J. September, 1966. 95 p.
- JC 660-348**
Some Concepts Held by Los Angeles City College Entrants on Probation Because of Low SCAT Scores, by Ruth S. Stein. Los Angeles City College. November, 1966. 28 p.
- JC 660-364**
Tests for Screening and Course Placement (Paper Presented at the Conference of the American Association of Junior Colleges, February 25-28, 1963, Seattle), by Robert A. DeHart. Foothill College, Los Altos Hills, Calif. February, 1963. 8 p.
- JC 670-124**
Study of SCAT Percentile Equivalents for Three Groups, by John J. Risser. Pasadena City College, Pasadena, Calif. October, 1965. 22 p.
- *JC 670-144 (ED 011-763)**
College Student Profiles — Norms for the ACT Assessment. American College Testing Program, Iowa City, Iowa. 1966. 310 p.
- JC 670-156**
A General Studies Program for Low-Achieving Students, by Paul A. Roman. California University, Los Angeles. June, 1966. 51 p.
- JC 670-191**
Summaries of Studies Recently Completed by the Admissions Office, by Leonard De Fiore. Nassau Community College, Garden City, N.Y. February, 1966. 6 p.
- JC 670-381**
In and Out of College. Report 1 — The First Year. A Longitudinal Study of the 1962 Freshman Class in Oklahoma Colleges. Oklahoma State Regents for Higher Education, Oklahoma City. October, 1964. 121 p.
- JC 670-429**
The Predictors of Grades in English 101, by Charles J. Gelso. South Georgia College, Douglas, Ga. May, 1966. 3 p.
- JC 670-464**
General Education Test, June 1, 1965. Yuba College, Marysville, Calif. June, 1965. 9 p.
- JC 670-512**
Measuring Educational Progress at Harcum through "Before" and "After" Testing, by Boris Blai. Harcum Junior College, Bryn Mawr, Pa. May, 1967. 3 p.
- JC 670-530**
Relationship of English Writing Sample Scores to Academic Performance, First Semester College Freshmen. Essex Community College, Md. 1966. 6 p.
- Abstracts of documents processed in the ERIC system may be found in *Research in Education*, a publication of the U.S. Department of Health, Education and Welfare. *Research in Education* may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Single copy, \$1.00; annual subscription of 12 issues, \$11.00)

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