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ABSTRACT

This annotated bibliography lists and comments on 24 selected items from the literature related to the terms higher education, academic programs, students, grades, placement, and motivation. Databases available at Nova Southeastern University, Florida, and Internet sites were used for the review. Most of the literature relates to the predictive ability of individual tests, or more specifically, the lack of predictive ability, of these tests for later measures of success. (SLD)

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An Annotated Bibliography of Selected Literature Related to the Search Terms Higher Education, Academic Programs, Grades, Placement, and Motivation.

Thomas MacFarland

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**AN ANNOTATED BIBLIOGRAPHY OF SELECTED LITERATURE  
RELATED TO THE SEARCH TERMS HIGHER EDUCATION,  
ACADEMIC PROGRAMS, GRADES, PLACEMENT,  
AND MOTIVATION.**

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**March 1996**

This listing consists of an annotated bibliography of selected literature related to the terms higher education, academic programs, students, grades, placement, and motivation. Databases available at the University as well as other locations on the Internet were selected for this review. Currently, most literature relates to the predictive ability of individual tests, or more specifically the lack of predictability of these tests for later success measures.

American Association of Colleges for Teacher Education. (1992). *Academic achievement of White, Black, and Hispanic students in teacher education programs*. (ERIC Document Reproduction Service No. ED 353 259)

This analytical study examined the correlation between high school grade point average (GPA) and success in school. The study found that a correlation exists between high school GPA and success in teacher education programs, with GPA a better predictor of success than the Scholastic Aptitude Test.

Baldwin, Ann. (1993). *Indicators of success for university transfer of Miami Dade Community College Graduates in Business/Management, Computer Science, and Engineering*. (Research Report No. 93-03R). Miami-Dade Community College, FL. (ERIC Document Reproduction Service No. ED 366 395)

This study examined students who graduated with an Associate of Arts as they were enrolled in upper level university courses. It was found that the best predictor of university GPA was GPA from the community college.

Bontekoe, J.F. (1992). *The ACT as a predictor of college success at Trinity Christian College*. American College Testing Program: Trinity Christian College. (ERIC Document Reproduction Service No. ED 355 258)

This study examined if the American College Test is a good predictor of college success for students at a religious school in Illinois. Although the ACT has a degree of predictive value, this study demonstrated that high school GPA is the best predictor of college GPA, with more predictability than ACT scores.

Charupatanapong, N., McCormick, W. C., & Rascati, K.L. (1994). Predicting academic performance of pharmacy students: demographic comparisons. *American Journal of Pharmaceutical Education*, 58(3), 262-268.

This study examined various criteria for the purpose of predicting success in a pharmacy program. It was found that pre-pharmacy GPA was the best and most powerful predictor of academic performance. However, no single group of variables could consistently predict academic performance against demographic variables. There was an extreme amount of inconsistency in the predictive ability of various criteria.

Daniel, L.F. (1993). *Predicting teacher performance: a multivariate investigation*. Paper presented at the Annual Meeting of the Southwest Educational Research Association. Austin, TX. January 28-30, 1993. (ERIC Document Reproduction Service No. ED 357 029)

This study examined, from a multivariate perspective, predictors of teacher quality. Criteria that were examined include subtests of the National Teacher Examination and overall college GPA. It was found that NTE subtest scores have value as predictors of teaching performance, but that student GPAs are relatively good predictors of teaching performance among students in a teacher education program.

de Felix, J.W. & Houston, W.R. (1986). *Implications of entrance requirements for success in graduate teacher education programs*. Paper presented at the Annual Meeting of the American Educational Research Association San Francisco, CA, April 16-20, 1986. (ERIC Document Reproduction Service No. ED 293 848)

This study examined entrance requirements for success in a graduate teacher education program. Results demonstrate the weak association between entrance requirements, such as undergraduate GPA and standardized examination scores, and later indicators of success, such as graduate GPA.

Fletcher, Richard K., Jr., et al. (1989). *Relationships between the PPST and ACT admission tests for teacher education and college GPA and NTE*. (ERIC Document Reproduction Service No. ED 324 446)

This study examined the predictive ability of the PPST test for teacher education. It also examined differences between various teacher education fields. It showed that secondary and music education majors scored the highest on the PPST reading subtest. Secondary and special education majors had significantly higher scores on the PPST math subtest than students from all other teaching discipline areas. A very interesting finding was that elementary education majors scored the lowest on the mathematics subtest and the science subtest, yet they had the highest GPA of all students in the undergraduate curriculum.

Grao, J., et al. (1992). *Demand in academic performance in higher education*. Paper presented at the EAIR Forum (14th, Brussels, Belgium, September 6-9, 1992). (ERIC Document Reproduction Service No. ED 374 735)

This study examined the demand for degrees and academic performance. Although a wide variety of measures was examined, it was determined that the employment status of the student's father and the student's previous academic performance were the strongest predictor factors. Among the many findings, it was determined that a student's decision to pursue a career in medicine was directly linked to high performance in secondary school. The decision to pursue careers that require a long track in a technology-based curriculum was also found to be evident for students with very good prior GPA and career advancement.

Gunn, Carolee (1982). *The predictive validity of school and college ability tests for teacher education programs*. Unpublished master's theses, University of Utah.

This thesis focused on secondary school teacher candidates and their performance on the school and college ability test (SCAT). These scores were then correlated to their cumulative grade point average. The results of later tests indicated that there was no correlation between test scores on the standardized instrument and grade point average.

Hall, K.M. & Gahn, S.W. (1994). Predictors of success to academically dismissed students following readmission. *NACADA Journal*, 14(1), 8-12.

This study examined predictor variables for students who had been readmitted to an academic program after prior dismissal for academic deficiencies. It was found that GPAs at another school during the dismissal period or cumulative GPAs at time of dismissal were the best predictors of success following readmission. Predictor variables that were found to be nonsignificant included ACT score, time between dismissal and readmission, number of credits earned at another school during dismissal, and the level in school at time of dismissal.

Krockover, G. H., Mortlock, H. J., and Johnson, B. T. (1987). The relationship of success predictors to common core course performance for elementary education majors. Ball State University, Muncie, IN: *The Teacher Educator* (23), 13-20.

This article started by citing the many discrepancies in findings between predictors of success and actual success, particularly for education majors. It cited the National Commission on Excellence in Education that "too many teachers are being drawn from the bottom quarter of graduating high school and college students." In contradiction, however, the authors cite an American Association of Colleges for Teacher Education Report that most students entering college during 1984 and 1985 to pursue teaching careers had graduated in the top quarter of their high school class and had above average SAT scores. The authors examined the grades of education majors and non-education majors at Purdue University. They determined that there was no difference in grades between education majors and non-education majors in a selected set of common core courses..

Milton, O., Pollio, H. R., Eison, J. A. (1986). *Making sense of college grades*. San Francisco: Jossey-Bass, Inc.

This text examined the purpose of grades, their role for motivation in relation to student learning, their use as predictors, problems related to grade inflation and/or grade deflation, and competition among students for grades. This book did not specifically address differences in grade threshold between various academic programs. One useful aspect of this text is that it traces the history of grading. Although this book provides a very useful treatment on grades in American higher education, it does not discriminate between grading practices and threshold levels among various academic programs.

Moffatt, G.K. (1993). *The validity of the SAT as a predictor of grade point average for non-traditional college students*. Paper presented at the Annual Meeting of the Eastern Educational Research Association. 16th, Clearwater Beach, FL. February 17-22, 1993. (ERIC Document Reproduction Service No. ED 356 252)

This study examined the predictive validity of scholastic aptitude tests of students who entered college after age 30. It was concluded that the SAT is a valid predictor of academic success for white students under age 30, and that it is not a valid predictor of academic success for students who took the SAT after age 30. It also found that the SAT was not a valid predictor of GPA for black students, regardless of age.

Noble, J., et al. (1995). *Differential prediction/impact in course placement for ethnic and gender groups*. Paper presented at the Annual Meeting of the National Council on Measurement in Education (San Francisco, CA, April 19-21, 1995). 20 pages. (ERIC Document Reproduction Service No. ED 384 631)

This study investigated the impact of course placement decisions based on ACT scores or high school subject area GPA. The results of this study indicated that ACT scores and grade point averages generally are not reliable predictors of student success. Other factors such as social support, family values concerning education, and personal aspirations contribute to performance.

Onasch, C. (1994). *Undergraduate grade point average and Graduate Record Exam scores as predictors of length of enrollment in completing a master of science degree*. Bowling Green State University. (ERIC Document Reproduction Service No. ED 375 739)

This study sought to determine the usefulness of using undergraduate grade point average and Graduate Record Exam scores as predictors of the time it would take to complete a master of science degree. The results of this study indicate that there is no strong relationship between undergraduate GPA, GRE scores, and degree completion time, and that these factors are not useful predictors.

Rhodes, M.L., Bullough, B. & Fulton, J. (1994). The Graduate Record Examination as a requirement for the graduate nursing program. *Journal of Professional Nursing, 10*(5), 289-296.

This study examined the predictive use of the Graduate Record Exam and undergraduate GPA. It was found that the GRE correlated with first year and overall graduate grade point averages, but it was a weaker predictor of performance than the undergraduate grade point average.

Riggs, I.M., et al. (1992). *An assessment of selection criteria validity for a teacher education program*. Paper presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA. April 20-24, 1992. (ERIC Document Reproduction Service No. ED 353 291)

This study examined the predictive validity of criteria for entrance into a teacher education program. It was found that GPA was the best predictor of later success, and that standardized tests fell short of predictive significance in ten of twelve trials.

Riggs, I. M. & Riggs, M. L. (1990-1991). Predictions of student success in a teacher education program: what is valid, what is not. *Action in Teacher Education, 12*,(4) 41-46.

This study examined the predictive utility of standardized tests, such as the NTE, for teacher performance. A major outcome was that standardized test scores, such as the NTE, provide no meaningful information relative to later performance as a teacher.



Stricker, Lawrence J., et al. (1992). *Adjusting college grade point average variations in grading standards*. (Report No. ETS-RR-92-65). Princeton, NJ: Educational Testing Service. (ERIC Document Reproduction Service No. ED 385-575)

This study addressed the issue on how college grade point average is used for purposes other than administration, particularly as a threshold for admissions criteria. Although the GPA is a very standard measure of achievement, this report discussed wide variances since each student takes a unique set of courses and receives grades from a unique set of instructors. This report offered methodologies for standardizing GPAs. This study concluded with the observation that GPA is still a very good measure for prediction of later success.

Stricker, L. J., & Rock, D. A. (1993). *Examining background characteristics in GRE general test performance*. (Report No. ETS-RR-92-80). Princeton, NJ: Graduate Record Examinations Board. (ERIC Document Reproduction Service No. ED 385 589)

This study examined background characteristics and performance on the GRE. Examinee characteristics, such as sex, ethnicity, parental education, geographic region, and age were examined. Of these various criteria, it was determined that parental education had the most consistent and strongest association with GRE test results. College related characteristics were also examined, and it was found that there was a strong association for school quality, selectivity, Ph.D. productivity, college major, and undergraduate GPA.

Sundheim, Betty Jean Madden (1962). *The relationships among "n" achievement, "n" affiliation, sex-role concepts, academic grades, and curricular choice*. Unpublished doctoral dissertation, Columbia University, New York.

This study focused on differences among women who majored in science and those who majored in elementary education. Women who majored in science had a higher need for achievement than women from other groups, while those who majored in elementary education had a higher need for affiliation than women who majored in science. However, it was determined that women with high achievement scores did not earn higher grade point averages than women with low achievement scores. Similarly, there was no difference in grade point average between females who were career oriented and those who were home oriented. There were no discernable differences in grade point average among the different constituencies.

Thomas, S. & Novak, T. *Relationships among top examination scores and academic achievement variables for nursing students*. (1988-89). (*Assessment of student outcomes in higher education*. Research Reports by Faculty at the University of Tennessee, Knoxville).

This report used the College Outcome Measures Project (COMP) examination administered to UTK students in their senior year. It specifically focused on COMP scores to nursing students and the relationship between COMP scores and the national license examination, which



graduates must pass to become registered nurses. Although this report focused on nursing students, there was evidence that nursing student mean scores on the COMP were in parity to mean scores of seniors in other disciplines at UTK and at other universities. There was a high correlation between historical records of high school GPA and COMP scores. Accordingly, the authors of this report concluded that the COMP, if given at the freshman year, would be a very good instrument to predict areas of weakness that could benefit from remediation throughout the college curriculum.

Wakeford, M.E. *The incremental predictive validity of NTE, communication skills, and general knowledge tests used for teacher education.* (1988). Paper presented at the Annual Meeting of the American Educational Research Association. New Orleans, LA, April 5-9, 1988. (ERIC Document Reproduction Service No. ED 293 874)

This study examined the predictive validity of the Scholastic Aptitude Test (SAT) for mathematics and verbal scores and grade point averages in the first and second half of the student's college work. Emphasis was placed on the examination of students in a teacher education program. Outcomes of this study indicate that test scores did not predict student performance on the SAT. The GPA was generally the best predictor of later success.

Williams, V.S.L. & Wakeford, M.E. (1990). *The predictive validity of the NTE for performance in teacher education programs and on the certification examination.* Paper presented at the Annual Meeting of the North Carolina Association for Research in Education. Research Triangle Park, NC, March 29-30, 1990. (ERIC Document Reproduction Service No. ED 335 375)

This study examined the performance of students in the first half of their college curriculum and in the last two years of their undergraduate curriculum. GPA 1 and GPA 2 were examined against a wide variety of predictor variables. It would appear that GPA 1 is the best predictor of GPA 2, with the importance here being that GPA 2 represents the majority of professional education and academic discipline area course work, since this is taken during the junior and senior years of college.

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