

ED415743 1997-00-00 A National Review of Scholastic Achievement in General Education. How Are We Doing and Why Should We Care? ERIC Digest.

ERIC Development Team

www.eric.ed.gov

Table of Contents

If you're viewing this document online, you can click any of the topics below to link directly to that section.

A National Review of Scholastic Achievement in General Education. How Are We Doing and Why Should We Care? ERIC Digest.....	2
ACHIEVEMENT?.....	2
WHAT IS COLLEGE BASE, AND WHO WAS TESTED?.....	2
WHAT DO COLLEGIANS REALLY KNOW ABOUT GENERAL EDUCATION.....	3
WHAT ARE THE IMPLICATIONS OF COLLEGE BASE? WHAT FURTHER.....	4
REFERENCES.....	4



ERIC Identifier: ED415743

Publication Date: 1997-00-00

Author: Osterlind, Steven J.

Source: ERIC Clearinghouse on Higher Education Washington DC. | BBB32577 _ George Washington Univ. Washington DC. Graduate School of Education and Human Development.

A National Review of Scholastic Achievement

in General Education. How Are We Doing and Why Should We Care? ERIC Digest.

THIS DIGEST WAS CREATED BY ERIC, THE EDUCATIONAL RESOURCES INFORMATION CENTER. FOR MORE INFORMATION ABOUT ERIC, CONTACT ACCESS ERIC 1-800-LET-ERIC

WHAT DO WE REALLY KNOW ABOUT COLLEGIANS' SCHOLASTIC

ACHIEVEMENT?

Historically, the American public has accepted at face value the claims made by colleges and universities about the quality of postsecondary education (Pascarella and Terenzini 1991). Inquiry into their academic performance was unnecessary because scholastic rigor and excellence were tautologous. Recently, however, our conceptions of the postsecondary experience are changing, incorporating a more cynical and critical perspective. In consequence, a large number of colleges and universities have instituted assessment programs aimed at their core courses, their general education curricula, or their liberal studies programs.

Despite widespread use of outcomes assessment in American higher education, surprisingly little information is publicly available about what college students know and what skills they possess. The College Basic Academic Subjects Examination (College BASE), a first attempt to record nationally the achievement in general education for our college-level population, addresses this dearth of information about what collegians know and can do.

WHAT IS COLLEGE BASE, AND WHO WAS TESTED?

College BASE is a criterion-referenced achievement test focusing on the degree to which students have mastered particular skills and competencies consistent with the completion of general education coursework (Osterlind and Merz 1990). Used by 56 colleges and universities, it includes scores for 74,535 students tested between 1988 and 1993. This very large population of examinees makes College BASE perhaps the largest study of its kind ever. The sample of institutions and of students tested within any given campus was not random, but by convenience. Still, by size alone, this study represents a considerable number of students and institutions. Unlike other commercially available measures of general education outcomes, College BASE is, in fact, the only test for college-level audiences to meet the technical criteria for being "criterion-referenced." While approximately two-thirds of the items in College BASE assess high-level, cognitive reasoning skills, the remaining one-third of the items assess important, factual knowledge (Osterlind and Merz 1990).

College BASE assesses achievement in four subject areas: English, mathematics, science, and social studies. Subject-area scores are built on content "clusters," which in turn are based on "skills." For example, English scores are based on two content clusters: reading and literature, and writing. Mathematics scores are based on three clusters: general mathematics, algebra, and geometry. (Calculus is not included as another cluster, because it is not typically a part of a university's general education curriculum.) Cluster scores derive from the particular skills inherent to a given subject. For example, the cluster reading and literature comprises the skills of reading critically, reading analytically, and understanding literature. In total, the exam includes four subjects, nine clusters, and 23 skills.

In addition to examining test scores for the population of students generally, data were also analyzed by subpopulation along four categorical variables: sex, ethnic heritage, class standing, and age. Each variable has distinct features that divide it into meaningful units.

WHAT DO COLLEGIANS REALLY KNOW ABOUT GENERAL EDUCATION

SUBJECTS? The findings of the study suggest that wide differences exist in collegians' achievement in general education and that dissimilitude in achievement is especially pronounced for particular subpopulations, especially by race. Two main findings emerge from the first level of data interpretation, simple mean scores for the four subjects. First, scores in three of the four subject areas (mathematics, science, and social studies) are very close to each other and may be interpreted to mean that collegians' global level of achievement among these areas is about relatively equal. English, however, falls behind the other areas by several points, representing a truly significant difference.

Throughout all of the area tests, and regardless of whether one looks at data from the gross subject level or at the more detailed cluster and skill levels, the sexes differ in achievement. In English, for example, the data clearly show that females far outperform males. In the three other subjects, however--mathematics, science, and social studies--males evidently demonstrate superior knowledge over females. And this trend seems to carry forward into analysis by cluster and skill level.

Interethnic differences are not consistent. For example, enormous disparity exists within the Asian population between achievement in mathematics and achievement in the three other subjects, especially when contrasted to English. Within the Hispanic subpopulation, social studies scores are significantly stronger than scores in the other areas. Achievement across subjects is more uniform for Caucasians than it is for any other ethnic heritage classification, and it is most dissimilar for Asians/Pacific Islanders.

Most alarming, however, are the findings between and among the race groupings. In

this area, differences are profound and pronounced. In mathematics, Asian students outperform all other groups, whereas Caucasians' achievement outstrips all other groups in English, science, and social studies. Blacks/African Americans lag far behind the achievement of all other ethnic heritage groups in every area assessed. In some cases, the gap between Blacks'/African Americans' achievement and the other groups' is so wide it is more than just alarming. It is frightening.

WHAT ARE THE IMPLICATIONS OF COLLEGE BASE? WHAT FURTHER

RESEARCH IS CALLED FOR?The implications of the findings from this study are many and varied, and include the necessity for special programs for low-achieving students and more opportunities to extend the collegiate experience for high achievers. Mostly, however, the findings show the vast differences within the population of college students. The full report contains considerable discussion about the significance and implications of the study's findings.

At this point in our history of higher education, it would be worthwhile to systematically sample the achievement of students who are pursuing formal postsecondary education in a nationally based research project. These findings and their interpretations show that achievement in general education among collegians is a complex and intriguing arena for exploration. Findings and conclusions are at once disturbing and enlightening. But at least by a national look at the achievement of college-level students in general education, we begin to gain insight into evaluating the quality and effectiveness of American higher education.

REFERENCES

Osterlind, S.J., et al. 1990. "College Basic Academic Subjects Examination, Form LE." Chicago: Riverside.

Osterlind, S.J., and W.R. Merz. 1990. "Technical Manual for College Basic Academic Subjects Examination." Chicago: Riverside.

Pascarella, E.T., and P.T. Terenzini. 1991. "How College Affects Students: Findings and Insights from Twenty Years of Research." San Francisco: Jossey-Bass.

Pike, G.R. 1992. "The Components of Construct Validity: A Comparison of Two Measures of General Education Outcomes." "Journal of General Education"41: 130-60.

Project on Strong Foundations for General Education. 1994. "Strong Foundations: Twelve Principles for Effective General Education Programs." Washington, D.C.: Association of American Colleges. ED 367 250. 90 pp.;

Wingspread Group on Higher Education. 1993. "An American Imperative: Higher Expectations for Higher Education. An Open Letter to Those Concerned about the American Future." Johnson Foundation. ISBN 0-9639160-0-9.

This ERIC digest is based on a full-length report in the ASHE-ERIC Higher Education Report series Volume 25, Number 8, A National Review of Scholastic Achievement in General Education How Are We Doing and Why Should We Care? by Steven J. Osterlind.

This publication was partially prepared with funding from the Office of Educational Research and Improvement, U.S. Department of Education, under contract no. RR-93-002008. The opinions expressed here do not necessarily reflect the positions or policies of OERI or the department.

Title: A National Review of Scholastic Achievement in General Education. How Are We Doing and Why Should We Care? ERIC Digest.

Note: For the full report, see HE 030 888.

Document Type: Information Analyses---ERIC Information Analysis Products (IAPs) (071); Information Analyses---ERIC Digests (Selected) in Full Text (073);

Available From: ERIC Clearinghouse on Higher Education, One Dupont Circle, NW, Suite 630, Washington, DC 20036-1183; phone: 800-773-3742, fax: 202-452-1844.

Descriptors: Academic Achievement, Achievement Tests, Asian Americans, Black Students, College Students, Criterion Referenced Tests, English, Ethnic Groups, General Education, Higher Education, Hispanic Americans, Mathematics, Racial Differences, Sciences, Sex Differences, Social Studies, White Students

Identifiers: College Basic Academic Subjects Examination, ERIC Digests

###



[\[Return to ERIC Digest Search Page\]](#)