

DOCUMENT RESUME

ED 409 065

JC 970 382

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TITLE Success Rate of Developmental vs. Nondevelopmental Students
in Freshmen College Level English.
PUB DATE 97
NOTE 20p.
PUB TYPE Numerical/Quantitative Data (110) -- Reports - Research
(143)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Basic Writing; Community Colleges; Comparative Analysis;
*Developmental Studies Programs; *English Instruction;
*Freshman Composition; *Outcomes of Education; Program
Effectiveness; *Remedial Instruction; Remedial Programs;
Tables (Data); Two Year Colleges; Withdrawal (Education)

ABSTRACT

Research has found evidence for the validity of remedial and developmental English courses in preparing students to pass freshman-level English courses. To determine whether similar validity could be demonstrated for remedial and developmental English courses at Tennessee's Walters State Community College, the percentage of former remedial and developmental English students who passed freshman English Composition 1010 in fall 1993 was compared to the percentage of nondevelopmental English 1010 students who passed. Results indicated that there was a statistically significant difference in percentages of developmental and nondevelopmental students who passed, with 70% of the 357 developmental students and 80% of the 460 nondevelopmental students passing. However, 17% of the developmental students withdrew or took incompletes, compared to 10% of the nondevelopmental students. The study found no statistically significant differences in the pass and fail performance of the two groups when withdrawals and incomplete grades were dropped from consideration. When only pass and fail categories were evaluated, the two groups performed in a statistically similar fashion. Descriptions of developmental English courses at the college and data tables are appended. (Author/HAA)

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Success Rate of Developmental vs. Nondevelopmental
 Students in Freshmen College Level English
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Running head: SUCCESS RATE OF DEVELOPMENTAL STUDENTS

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Abstract

Ballott and Bowman (1983) and others have found evidence for the validity of remedial and developmental English courses in preparing students to pass freshman level English courses. To determine whether similar validity could be demonstrated for remedial and developmental English courses at Walters State Community College, the percentage of former remedial and developmental English students who passed freshman English Composition 1010 was compared to that of nondevelopmental English Composition 1010 students. This study found that there was a statistically significant difference in the ability between developmental vs nondevelopmental students to pass English Composition 1010. The nondevelopmental students passed English Composition 1010 with greater frequency. One exception to this finding was that there was not a statistically significant difference in the pass and fail performance of the two groups of students when withdrawals and incomplete grades were dropped from consideration. When only pass and fail categories were evaluated, the two groups performed in a statistically similar fashion.

Success Rate of Developmental vs Nondevelopmental
Students in Freshmen College Level English

Community colleges are noted for an open-door policy, which assures that any person who has a high school diploma or a GED may apply for college entrance. College entrance is then determined by the applicant's scores on placement tests. Students who do not meet the standards for placement in college level courses are required to take developmental courses, whose purpose is to provide college preparatory instruction.

In 1992, the Tennessee Higher Education Commission (THEC), funding agent for community colleges in Tennessee, conducted a statewide impact study of the increased enrollments and funding for the developmental programs throughout the State of Tennessee. As a consequence of the study, THEC resolved to modify the statewide developmental program, reducing the instruction time and funding for such courses. During the 1992-1993 program year, Walters State experienced a reduction in funding and course instruction time.

Walters State Community College has offered developmental education courses since 1972. Proportionally, as total enrollment continues to escalate from year to year, so do the numbers of students who take developmental courses.

Ironically, as the enrollment of developmental students increased, funding was reduced. The advent of attrition in funding became a concern among faculty. How was the increasing number of developmental students going to be adequately served with less instructional hours? Would educational quality be substituted for quantity? Perhaps the most significant question of all was whether or not the developmental courses actually made a difference.

Educators, politicians, parents, and taxpayers at-large continue to debate the merit of developmental courses in the college curriculum. Research has been conducted to examine the academic achievement of college freshmen who enroll initially in developmental courses versus freshmen who enroll initially in college level courses. Significantly more research results are available in English courses, and is the focus of this study. Findings among the researchers show that a vast majority of college freshmen benefit from taking a developmental English course before pursuing the college level English course, though research does not represent the majority of English students that have been served by developmental English courses (Baker, 1982; Biddar, 1984).

In a review of the literature, Biddar (1984) states that there is conflicting evidence among researchers. Using a community college population, Biddar (1984) found that completing a remedial course tended to result in only

slightly higher grades in subsequent courses. Other research found that students exposed to remedial course work performed as well as other students in a college level course.

However, some results found "no difference in subsequent academic performance between a group who had the remedial experience and those who did not." (Biddar, 1984).

This study was conducted to determine if the students who took developmental English, and then took college level English during the 1993 Fall Semester have equal or greater rates of success as nondevelopmental students in Composition 1010 at Walters State Community College. It was hypothesized that developmental students achieved equal or greater rates of success as the nondevelopmental students.

Design and Procedure

Students enrolled in English Composition 1010 during the Fall, 1993 semester at WSCC served as subjects for this study. English Composition is a required course for the majority of programs at WSCC and is described in the college catalog in the following way: "A composition course using expressive, informative, and persuasive writing with emphasis on invention, organization, style, and revision. Research skills and documentation will be introduced." (Walters State Community College Catalog/Student Handbook, 1993-1994).

Students previously enrolled in Remedial English 0710 or

Developmental English 0820 comprised the developmental subjects portion of the study. A definition and partial guidelines for remedial and developmental studies are included in Walters State's catalog/student handbook, and is included in Appendix A. Also, course descriptions for Remedial English 0710 and Developmental English 0820 taken from the catalog/student handbook can be found in Appendix B. Students entering English Composition 1010 without participation in remedial or developmental English courses were the nondevelopmental subjects.

All students enrolled in English Composition 1010 met the college entrance requirements of WSCC. Final grade data in English Composition 1010 for Fall, 1993 were collected using WSCC's Student Information System (SIS), a college-wide computer database. By a review of past student records as generated by SIS, students were categorized as developmental or nondevelopmental. For both categories, success rate in English Composition 1010 was tabulated using a 0 for a failing grade and a 1 for a passing grade. A passing grade for English Composition 1010 was defined within the English Department as a final average of 60 or above on a 100 point scale. Grade averages below 60 constituted a failing grade. The no-pass category was comprised of student failures, withdrawals and incompletes. The incomplete grade "means

that the student was passing at the end of the semester but had not completed all the course work". A Chi-square analysis was performed on these results using the SAS system at the University of Tennessee.

Results

The results of the study were generated from grades made by students in English 1010. Frequency data were broken into two categories: grades made by developmental students, and those made by nondevelopmental students. In order to fully evaluate the data, the information was configured three different ways. The data were then analyzed using the Chi-square formula. The output of the Chi-square analysis of the three configurations of data is illustrated in Tables 1, 2, and 3 of this study.

In the first configuration, the information relating to the English 1010 performance of developmental and nondevelopmental students was sorted into three categories: pass, fail, and incomplete/withdrew. Of the 357 developmental students, about 70% of them passed; almost 13% of them failed; and approximately 17% of them withdrew or made incompletes. Of the 460 nondevelopmental students, about 80% of them passed; almost 11% of them failed; and about 10% of them withdrew or made an incomplete.

Evaluating the data with the Chi-square formula,

$\chi^2 (2, N = 817) = 11.650, p < .05$. This result indicates that there is a statistically significant difference in the scores made by the developmental and nondevelopmental students. Table 1 displays a complete array of the three categories of data relating to the two groups of English 1010 students.

In the second configuration of the frequency data, the information relating to performance of developmental and nondevelopmental students was sorted into two categories: pass and no-pass. In this configuration, the grades of incomplete/withdrew were pooled together with the failing grades into a no-pass classification. Of the 357 developmental students, almost 30% of them fell into the no-pass category, while about 70% of them passed. Of the 460 nondevelopmental students, about 20% of them fell into the no-pass category, while almost 80% of them passed the course.

Evaluating this configuration of the data with the Chi-square formula, $\chi^2 (1, N = 817) = 9.31, p < .05$. The results indicated that there was a statistically significant difference in the scores made by the developmental and nondevelopmental students. Table 2 displays a complete array of the two categories of data relating to both groups of English 1010 students.

In the final configuration of the frequency data, all

the incomplete or withdrawal grades made by the developmental and nondevelopmental students were dropped from consideration. Thus, only the grades of pass or fail were left to be evaluated. Of the 296 developmental students in this evaluation, almost 85% of them passed, while approximately 15% failed. Of the 416 nondevelopmental students in this evaluation, almost 88% of them passed, while about 12% failed the course.

Evaluating this configuration of the data with the Chi-square formula, $X^2 (1, N = 712) = 1.516, p > .05$. This result indicates that there is not a statistically significant difference in the performance of the developmental and nondevelopmental students. Table 3 displays a complete array of these two categories of data relating to both groups of English 1010 students.

Discussion

The major limitation of the study was that no historical data about success rates for developmental vs nondevelopmental students in English Composition 1010 was available for comparison purposes. However, since a 100% population of English Composition 1010 was used, the population represented a cross section of students with respect to age, race and gender, allowing for generalizability to other semester populations of English

Composition 1010 at WSCC. Because of the differences in developmental programs and course requirements at other community colleges, generalizability to other college populations was not assumed.

While it cannot be claimed that developmental students evidenced the same pass rate as nondevelopmental students, the researchers of this study believe that the statistics involved are only a partial profile of the success rate of developmental students. For example, higher withdrawal rates among the developmental student population of this study were found to be consistent with previous research and is another factor contributing to the success rate (Baker, 1982; Peglow-Hoch & Walleri, 1990). Also, demographics may play a role as well: age, socio-economics, dependents, etc.

Although research has been accomplished on factors contributing to success in college in general, further research may be needed to determine what factors contribute to success in passing English Composition 1010 specifically. Through this research effort, instruction for remediating differences (deficits) in remedial/developmental students may be identified for inclusion in these prerequisite classes.

Plans for Future Research

Future research should focus on variables other than developmental and nondevelopmental factors that contribute to

success or failure in English 1010. A poll of English teachers might yield a group of variables that the teachers believe affects the success or failure of their students.

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Appendix A

ADVANCED AND DEVELOPMENTAL EDUCATION**(formerly Remedial and Developmental Studies)**

The purpose of the Advanced and Developmental Education Division is to assist students in the improvement of those academic skills necessary to better performance in the classroom. In order to be successful in college-level courses, students must have adequate basic skills. Toward this end, Walters State offers courses in Reading Comprehension, English Communications (Writing), Arithmetic, Elementary Algebra, Intermediate Algebra, and Study Skills. These courses are divided among remedial and developmental levels.

The following definitions are written to include the competencies and skills required for success in college-level work. The definitions themselves have been developed after careful reading of the literature on the topic; after discussions with faculty, staff, and administrators both in Tennessee and elsewhere; after consideration of the suggestions provided by consultants; and after an analysis of the needs of Tennessee students as reflected in the remedial/developmental courses and programs presently offered at TBR institutions.

Remedial Studies

A program of instruction that leads to proficiency in the Basic Skills Competencies defined by the Tennessee State Department of Education as its "Objectives for the Tennessee Proficiency Test." The fifty competencies address mathematics, language/spelling, and reading. These courses are typically numbered in the 0700 series. Skills taught in Remedial courses are to be those academic skills defined and assessed by the Tennessee Proficiency Test.

Developmental Studies

A program that is distinct from Remedial Studies as defined above and that leads to the level of proficiency in the "Basic Academic Competencies" and in the "Basic Academic Subjects" defined by the Educational Equality Project of the College Board as required for successful pursuit of college studies. These courses are typically numbered in the 0800 series. Competencies taught in Developmental courses are to be those Basic Academic Competencies defined in the College Board's Project Equality and appearing in *Academic Preparation for College* and accompanying subject area guides.

Students enrolled in these courses are required to attend classes as scheduled. Absence from class contributes to lowered levels of achievement and slower academic progress. These courses are designed to improve skills through the building of specific competencies that evolve into the basic skills necessary for success in the first freshmen college-level course. Programs are individualized as much as possible, and students are encouraged to take responsibility for their own learning. Each course in the program is designed as a one-semester course. All students must fulfill the requirements upon placement in this program. Study Skills may be required for specific students based upon placement.

Appendix B

****ENGL 0710 Basic Writing 4 credits**
This course addresses sentence-level problems in writing including complete sentences, sentence fragments, subject-verb agreement, verb tense, pronoun reference and agreement, and basic punctuation. Students write sentences, and later paragraphs, to correct these problems. This course adds 4 credit hours to the graduation requirements for students enrolled. (Prerequisite: Entry is by college placement procedures only)

****ENGL 0820 Developmental Writing 4 credits**
This course addresses paragraph and theme-level problems in writing including thesis, support, development, revision, and editing. Students write paragraphs, and later themes, to correct these problems. This course adds 4 credit hours to the graduation requirements for students enrolled. (Prerequisite: Entry is by college placement procedures only)

Author Notes

We would like to express our appreciation to Dr. Bethany Dumas for taking the time to run our Chi-square statistics on SAS. Also, thank you to Dr. James Schmidhammer for clearing up several statistical problems.

TABLE 1

PERFORMANCE OF ENGLISH 1010 STUDENTS

| CLASS | PERF | | | TOTAL |
|-------------------|-------|-------|-------|--------|
| | FAIL | INC/W | PASS | |
| FREQUENCY | | | | |
| PERCENT | | | | |
| ROW PERCENT | | | | |
| COL. PERCENT | | | | |
| DEVELOPMENTAL | 45 | 61 | 251 | 357 |
| | 5.51 | 7.47 | 30.72 | 43.70 |
| | 12.61 | 17.09 | 70.31 | |
| | 47.37 | 58.10 | 40.68 | |
| NON-DEVELOPMENTAL | 50 | 44 | 366 | 460 |
| | 6.12 | 5.39 | 44.80 | 56.30 |
| | 10.87 | 9.57 | 79.57 | |
| | 52.63 | 41.90 | 59.32 | |
| TOTAL | 95 | 105 | 617 | 817 |
| | 11.63 | 12.85 | 75.52 | 100.00 |

STATISTICS FOR TABLE 1

| STATISTIC | DF | VALUE | PROB |
|------------|----|--------|-------|
| CHI-SQUARE | 2 | 11.650 | 0.003 |

SAMPLE SIZE = 817

TABLE 2

PERFORMANCE OF ENGLISH 1010 STUDENTS WITH FAIR, INCOMPLETE, AND WITHDRAW CONSIDERED NO-PASS

| CLASS | PERF | | TOTAL |
|-------------------|---------|-------|--------|
| | NO-PASS | PASS | |
| DEVELOPMENTAL | 106 | 251 | 357 |
| | 12.97 | 30.72 | 43.70 |
| | 29.69 | 70.31 | |
| | 53.00 | 40.68 | |
| NON-DEVELOPMENTAL | 94 | 366 | 460 |
| | 11.51 | 44.80 | 56.30 |
| | 20.43 | 79.57 | |
| | 47.00 | 59.32 | |
| TOTAL | 200 | 617 | 817 |
| | 24.48 | 75.52 | 100.00 |

STATISTICS FOR TABLE 2

| STATISTIC | DF | VALUE | PROB |
|------------|----|-------|-------|
| CHI-SQUARE | 1 | 9.317 | 0.002 |

SAMPLE SIZE = 817

TABLE 3

PERFORMANCE OF ENGLISH 1010 STUDENTS WHO COMPLETED THE COURSE

| CLASS | PERF | | TOTAL |
|-------------------|-------|-------|--------|
| | FAIL | PASS | |
| DEVELOPMENTAL | 45 | 251 | 296 |
| | 6.32 | 35.25 | 41.57 |
| | 15.20 | 84.80 | |
| | 47.37 | 40.68 | |
| NON-DEVELOPMENTAL | 50 | 366 | 416 |
| | 7.02 | 51.40 | 58.43 |
| | 12.02 | 87.98 | |
| | 52.63 | 59.32 | |
| TOTAL | 95 | 617 | 712 |
| | 13.34 | 86.66 | 100.00 |

STATISTICS FOR TABLE 3

| STATISTIC | DF | VALUE | PROB |
|------------|----|-------|-------|
| CHI-SQUARE | 1 | 1.516 | 0.218 |

SAMPLE SIZE = 712



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