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ABSTRACT

Beginning in fall 1991, Napa Valley College (NVC), in California, switched from essentially mandatory placement of incoming students to an advisory, self-selection system, where students receive course recommendations based on assessment test results. In order to evaluate the validity of NVC's assessment procedures, a study was conducted of assessed students' self-placement and success rates for fall 1991 and spring 1992. Students assessed prior to these semesters were divided into two groups, "advised" students making course selections based on their assessment test scores, course recommendations, and personal factors (e.g., high school grades, work schedule, and motivation), and a "blind" group utilizing only personal factors. The study then examined differences in the level of math and English courses selected by the two groups and subsequent success in two English and two math courses. Major findings included the following: (1) 51% of the 184 students who enrolled in English courses without knowing their assessment outcomes enrolled at a level that would have been recommended, while 64% of the 220 advised students did so; (2) 69% of the 228 students who enrolled in math courses without knowing their assessment outcomes enrolled at a recommended level, while 77% of the 285 advised students did so; (3) at most, 27% of the unadvised students enrolled in higher level courses than would have been recommended; (4) for the two math courses, there was no difference in success between the two groups of students; and (5) while there was no difference in success rates for one of the English courses, the other showed a success rate of 35% for unadvised students, compared to 58% of advised students. In general, the findings alleviated NVC staff concerns concerning the self-selection placement system. (BCY)

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**Course Enrollments and Subsequent Success  
After Being Advised of or 'Blind' to  
Assessment Test Scores and Course Recommendations**

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Course Enrollments and Subsequent Success  
After Being Advised of or 'Blind' to  
Assessment Test Scores and Course Recommendations

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In Fall 1991 and Spring 1992, data were collected on students who completed reading, writing, or math assessment tests, then immediately enrolled in English or math courses. Students were randomly assigned to two conditions--advised or 'blind'--depending on which orientation they attended. The advised students (N=220 for English; N=285 for math) received their assessment test scores and course recommendations. The blind students (N=184 for English; N=228 for math) placed themselves without their test scores and recommendations. Both advised and blind students were asked to consider several non-test measures when selecting their courses. The main purpose of this design was to create greater variability among test scores in the classes, which would be necessary to validate the tests. In addition, we were able to compare the enrollments and subsequent success of students who were advised of or blind to their test scores and course recommendations. Beginning in Fall 1991, the college switched from what had been essentially mandatory placement to an advisory, self-selection system. Some staff were concerned that under advisory placement, large numbers of students would disregard the placement system by enrolling into higher level courses than recommended; these fears were unfounded. The results indicated that the majority of advised students followed their placement advice, and the majority of blind students enrolled into the courses to which they would have been recommended. However, a comparison of the two groups yielded a significant difference in their English course enrollments, with a larger percentage of blind students placing themselves into higher-level courses than recommended. The subsequent success/non-success of the groups was significantly different in one English course level but not another. There was no significant difference between the groups in their enrollments into recommended courses for math, nor was there any significant difference in the success of advised or blind students in two math courses. The results were instrumental in gaining greater instructor acceptance of the advisory, self-selection placement system and helping to alleviate concerns over students who choose to place themselves into higher level courses than recommended.

## Introduction

The Napa Valley College Matriculation Steering Committee commissioned research studies on the assessment tests used for placement into reading, writing, and math courses. Representatives from the Counseling, Language Arts, and Science/Math Divisions worked with the Research Analyst to design the studies. The studies were conducted to comply with State Matriculation Regulations for research on the validity of assessment tests and placement systems used in community colleges. In addition, the data would provide college divisions with information to evaluate the effectiveness of their current tests and course recommendations.

This particular report focuses on student placement into English 120 and English 100 courses using the College Board APS Reading test and a locally developed writing sample assessment. English 120 is the first semester college level reading and composition course. English 100 immediately precedes English 120 and prepares students for college writing. We also focused placement into Math 90 (Elementary Algebra) and Math 94 (Intermediate Algebra) using the UC/CSU Mathematics Diagnostic Testing Project (MDTP) instruments. We did not focus on other English and Math courses because enrollments were too small to analyze.

In a proper validation study, it is best to evaluate an assessment instrument or procedure not presently used for placement. However, the procedures under investigation were being used in this fashion. This, coupled with a past history of mandatory placement with a waiver system led to expectations that the variability of test scores would be limited, which would then limit validity. Therefore the assessment test research committee decided to suspend the reporting of assessment scores and course recommendations for a portion of students. Some students would be advised of their test scores and course recommendations, while others would place themselves in courses without this information. We could then compare course enrollments and ultimate success of the advised students compared to the students who were 'blind' to their test scores and course recommendations.

## Method

We collected data in Fall 91 and Spring 92 on students who completed assessment tests, then immediately enrolled in English 120, English 100, Math 94 or Math 90 courses. Students included in this study were limited to those assessed within several weeks prior to the beginning of the semester. Since the purpose of this research is to evaluate the assessment test procedures, this study focuses on students placed using those assessments, not on those who completed prerequisite courses.

Students were randomly assigned to the two conditions--advised or 'blind'--depending on which orientation they attended. The advised students received their assessment test score and course recommendations. The blind students placed themselves without their test scores and recommendation but could receive their test scores if they felt they needed them. (Few blind students chose to join the advised group.) Students, counselors and instructors were not aware of students' test scores. Both advised and blind students were asked to consider several non-test, self-reported measures when selecting their courses.

## Factors Students Were to Consider When Selecting Their Courses

### Advised Students

- Assessment test score and course recommendations
- Grades received in last Math and English courses
- How recently they had taken other courses in the area
- High school grades and how long since they attended high school
- Work schedule
- Family responsibilities
- Study skills
- Their own motivation to succeed in courses

### Blind Students

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- Grades received in last Math and English courses
- How recently they had taken other courses in the area
- High school grades and how long since they attended high school
- Work schedule
- Family responsibilities
- Study skills
- Their own motivation to succeed in courses

The designation of a student as 'blind' or 'advised' had to be manually-entered onto the computer. To minimize labor, we entered these designations only for students who completed a writing sample in addition to the reading test. Students were recommended to English courses based on the higher of their scores on the reading or writing test.

**Did Advised Students Tend to Follow English Course Recommendations?  
Where Did Blind Students Place Themselves?**

English Course Enrollments

	Below Recomm.	At Recomm.	Above Recomm.	Total*
Advised	26%	64%	11%	220
Blind	23%	51%	26%	184

- Close to two-thirds of the advised students' enrollments were in courses recommended.
- Over half of the blind student enrollments were in courses to which they would have been recommended.
- There was a statistically significant difference between the advised and blind students in their course placements [ $X^2(2)=17.2, p < .001$ ]. A larger percentage of Blind student enrollments were in courses above those to which they would have been recommended.

\*The actual number of enrollments is higher. These totals are limited to students for whom we had complete records on reading scores, writing scores, and advised/blind status.

## Did the Groups Differ in Their Success or Non-Success?

They did in one English course level but not another.

### English 120 Freshman Composition

	Successful (A, B, C, CR)	Not Successful (D, F, NC)	Withdrew	Total
Advised	66%	9%	26%	160
Blind	58%	18%	24%	98

- There was no significant difference between the success or non-success of the groups.

### English 100 Preparation for Freshman Composition

	Successful (A, B, C, CR)	Not Successful (D, F, NC)	Withdrew	Total
Advised	58%	19%	24%	139
Blind	35%	25%	40%	68

- There was a statistically significant difference between the success of the groups [ $X^2(2)=9.4, p < .01$ ]. Advised students were more successful, while a larger percentage of Blind students withdrew from the course.

**Did Advised Students Tend to Follow Math Course Recommendations?  
Where Did Blind Students Place Themselves?**

Math Course Enrollments

	Below Recomm.	At Recomm.	Above Recomm.	Total
Advised	8%	77%	15%	285
Blind	14%	69%	17%	228

- Over three-fourths of the advised students' enrollments were consistent with their placement advice.
- Two-thirds of the blind students' enrollments were in the course(s) to which they would have been recommended.
- There was no significant difference between the blind and advised groups in their course placements.



## Did the Groups Differ in Their Success or Non-Success?

In the two math courses, the Advised and Blind groups did not differ significantly in their success.

### Math 90 Elementary Algebra

	Successful (A, B, C, CR)	Not Successful (D, F, NC)	Withdrew	Total
Advised	53%	21%	25%	145
Blind	52%	23%	25%	99

### Math 94 Intermediate Algebra

	Successful (A, B, C, CR)	Not Successful (D, F, NC)	Withdrew	Total
Advised	57%	16%	27%	99
Blind	59%	20%	22%	41

We can compare some of the assumptions staff had made about what would happen to actual research findings.

### **What They Said Would Happen**

- Over 90% of our students follow placement advice.
- Students won't want to place themselves without testing information. They *need* those scores.
- Blind or advisory placement would lead large numbers of students to "misplace" themselves.
- Students overestimate their abilities in English and underestimate their abilities in math.

### **What Really Happened**

- Anywhere from half to three-fourths of students followed placement advice, depending on the course subject. Up to one-fourth of students placed themselves in courses below those recommended.
- Most of the 'blind' students--who placed themselves without test results or course recommendations--voluntarily chose to remain in the blind group.
- Even among the 'blind' students, at most 27% enrolled in higher level courses than they would have been recommended.
- Greater percentages of students (both advised and blind) followed course recommendations for math than they did for English, and greater percentages placed themselves in lower level English courses than recommended.

## Conclusions

- The majority of students enrolled in courses recommended or, in the case of blind students, courses to which they would have been recommended. We did not find large percentages of students placing themselves in higher level courses; in fact, some placed themselves in lower level courses.
- Students are able to select their courses without test scores or recommendations. However, their success rates differed depending on the course; advised student showed significantly greater success in one English course but not another. There were no significant differences in student success in the two math courses. In any event, we did not find blind students systematically performing more poorly than those advised.

These findings had impact on staff attitudes toward assessment.

### Impact of Findings

- Instructors are more accepting of an advisory self-selection placement system.
- We were able to alleviate concerns over students who chose to place themselves into higher level courses than recommended.
- Instructors are much more open to evaluating assessment procedures and basing decisions on actual findings.