THE USE OF CAREER TESTING IN
AN EXPERIMENT WITH POTENTIAL DROPOUTS

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BACKGROUND

In February, 1972, the research office at Santa Barbara City College reported an experiment in which students in selected vocational curricula had been administered a commercially available career oriented test battery, the Career Planning Profile published by American College Testing. In that project, the four groups of students were tested, given group interpretations of the results in their classes, and invited to discuss any individual questions concerning the test with a college counselor. The results showed that the experimental group had a statistically significantly higher pattern of persistence and performance than a comparable group from the prior year enrolled in the same classes.

Because of the results of this earlier study, it was decided to conduct a similar experiment during 1972-73. This time, the target population would be a group of students identified as potential dropouts by the NORCAL questionnaire procedure developed by the research officer, and validated over three years in 22 colleges. In the past, high risk students had been found to withdraw in a proportion of about 25 percent, as compared with seven percent for the typical student in the entering class. The major question of the study was whether the career testing procedure would be effective in reducing attrition among high risk students.

DESIGN OF THE EXPERIMENT

Three groups were chosen for the project. First, a sample of high risk students (N=15) was drawn from the Santa Barbara High School graduating class of June, 1972, and administered the ACT Career Planning Profile in May, 1972. As an additional consideration, this group of students was also given a priority registration period in which to enroll in classes for the Fall semester, placing them ahead of all other new
students. Second, a group of high risk students (N=15) was drawn from the graduating class of Santa Barbara High School, 1972, to serve as a control group. This sample received no special treatment or testing. Finally, a sample of June 1972 graduates from Santa Barbara High School who were not identified as high risk, but had registered for classes in the fall semester, was invited to take the ACT Career Planning Profile, during September, 1972, and to have the results individually interpreted during the semester by the counselor in charge of the Career Development Facility. Twenty-two students responded to this invitation.

The total group in the experiment, then, was fifty-two students. Since all of them were June graduates from high school, no age comparisons were found to be significantly varied. The groups were also balanced by race and sex. As a final check on the comparability of the groups, a test was made of the significance of difference between the mean IQ scores of each group, as reflected in high school testing records. The results of this comparison are given as Table I. There were no significant differences among the groups on this variable. As the three groups completed the registration process, a comparison was also made of the declared majors. Since the experimental group had been tested and received a group interpretation of the results prior to actual registration, it was expected that a higher proportion of these students would declare specific majors related to their interests, rather than the "General Studies" major. While this was the case, as shown in Table II, the differences among the groups were not statistically significant. The experimental procedure did have an observable impact on majors, but not a significant one.

EXPERIMENTAL FINDINGS

At the end of the Fall semester, 1972, an analysis was made of the student records for all 52 students in the study. Again, the hypothesis of the study was that attrition would be significantly lower for the experimentally treated group of high risk
Table 1

<table>
<thead>
<tr>
<th>Group</th>
<th>MN</th>
<th>S.D.</th>
<th>MN</th>
<th>S.D.</th>
<th>MN</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental (N=15)</td>
<td>100.62</td>
<td>13.69</td>
<td>102.50</td>
<td>12.50</td>
<td>103.75</td>
<td>15.37</td>
</tr>
</tbody>
</table>

Differences not significant
Table II
Declared Majors of All Groups of Study

<table>
<thead>
<tr>
<th></th>
<th>Experimental</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Proportion</td>
<td>N</td>
<td>Proportion</td>
</tr>
<tr>
<td>General Studies</td>
<td>6</td>
<td>.400</td>
<td>7</td>
<td>.538</td>
</tr>
<tr>
<td>Specific Declared</td>
<td>8</td>
<td>.600</td>
<td>6</td>
<td>.462</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>1.00</td>
<td>13</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Differences are not significant
students, as compared with the non-treated high risk group.

The results are given in Table III. Attrition in the experimental group was statistically significantly higher than for the non-risk, tested control group, but was not significantly different than the attrition of the non-treated high risk control group. The drop-out rate during the fall semester for the non-risk entering students was less than five percent, but was thirteen percent for the high risk controls, and twenty-six percent for the experimental group.

**DISCUSSION**

The most interesting aspect of this study, perhaps, is not that the experimental treatment did not work, but that the non-treated high risk group had such a low attrition rate by comparison. One inference is that the treatment was counterproductive of the desired outcome. With such small sample sizes, it may be that some other variable may have differentiated the two high risk groups. Neither age, nor sex, nor academic aptitude varied significantly, however.

If the results are a sound basis for planning, one must conclude that providing the service of group testing and group interpretation concerning the outcomes of the tests and their implications for academic choices is not of sufficient impact to change the behavior of potential dropouts. In this case, at least, the better choice would have been to leave the group alone entirely. As an alternative procedure, the capability of the Career Development facility individually to administer and interpret tests would possibly have been of greater value. The control group of non-risk students who responded to the invitation for the service had an exceptionally low attrition rate. For all credit students at SBCC in the Fall of 1972, approximately 10% withdrew, a figure that is fairly constant over the past three years.

Whatever the appropriate strategy for impact on attrition, the study suggests that having better information about one’s own potentials, attitudes, and interests in regard to career does not of itself create a supportive base to reduce attrition among high risk
Table III

Mean Grade Point Averages of All Groups in Study

<table>
<thead>
<tr>
<th></th>
<th>Experimental</th>
<th>High Risk Control</th>
<th>Tested Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean GPA</td>
<td>2.58</td>
<td>2.29</td>
<td>2.57</td>
</tr>
<tr>
<td>Withdrawals (fraction)</td>
<td>.266</td>
<td>.133</td>
<td>.045</td>
</tr>
</tbody>
</table>

Withdrawal Difference between Experimental and Tested Control = .221
\[ z = 12.23 \ p = .01 \]

Withdrawal Difference between High Risk Control and Tested Control = .088
Not Significant

Withdrawal Difference Between Experimental and High Risk Control = .133
Not Significant

GPA Differences Not Significant
students. These results do not, of course, negate the value of the same testing and information giving procedure for other kinds of students, but it does suggest that a stronger emphasis must be placed on the individual follow-up, both with services and with counseling in the affective domain.