This study assessed the impact of the HORIZONS Student Support Program on participating college freshmen at Purdue University (Indiana). HORIZONS is a federally funded program designed to increase retention of first generation, low income, or physically disabled students. The cornerstone of the project and the vehicle through which most services are delivered is the freshman orientation course, "Strategies for Effective Academic Performance," which addresses cognitive and affective needs. Students meet for 3 hours per week in a classroom to address the cognitive portion of the course and for 2 hours per week in a "Community Building/Personal Growth Laboratory" to work on the affective portion of the course. This study compared all 47 freshmen who entered the program in fall 1990 with a matched group of those who did not. Results showed that participation in HORIZONS had a dramatic impact on student retention and rate of graduation. The HORIZONS group retained 85 percent through 10 semesters while the control group retained only 47 percent. The increase in retention and graduation rates resulted from the delivery of a comprehensive set of services. Students evaluated the services and indicated that belonging to a support network, instruction in effective study methods, and tutoring were the most important services. (JB)
A Successful College Retention Program

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Abstract

The HORIZONS Student Support Program, a TRIO program at Purdue University, compared all freshmen (47) who entered the HORIZONS program fall semester 1990 with a matched group. Matching was done by the Office of the Registrar and based on school of enrollment, race, and entering academic skills. Participation in HORIZONS had a dramatic impact on student retention and rate of graduation from the very first semester through the present. The HORIZONS group has retained 85% through 10 semesters while the control group has retained only 47%. The increase in retention and graduation rates resulted from the delivery of a comprehensive set of services. Students evaluated the services and indicated that belonging to a support network, instruction in effective study methods, and tutoring were the most important services offered through the program.
The HORIZONS Student Support Program has been in existence at Purdue University since 1978. HORIZONS is a retention program which received $234,601 from the U.S. Department of Education for the 1994-95 academic year to serve 330 first generation, low-income, or physically disabled students. Student Support Programs are one of the five programs known as TRIO programs contained in Title IV of the Higher Education Act of 1965.

In the fall semester of 1990, HORIZONS implemented a matched-pairs research design to determine the impact of the services of the HORIZONS Student Support Program. Students classified as first semester freshmen who joined HORIZONS in the fall of 1990 comprise the experimental group. An equal number of students (47) who were eligible to join HORIZONS, but chose not to, comprise the control group. Students were matched via computer by the assistant registrar for research on (1) the probability of earning a 2.0 GPA (C), which is based on SAT scores, high school grades, and high school rank, (2) race, and (3) school of enrollment. Students were enrolled in 10 different schools within the University; Engineering, Science, Technology, Nursing, Consumer and Family Sciences, Education, Health Sciences, Liberal Arts, Agriculture, and Management. Each group was comprised of 8 Hispanic students, 14 African American students, and 25 Caucasian students. The average SAT scores for the two groups was 393 verbal and 471 math. This combined score of 864 on the SAT is more than 150 points below the University average. Current results of this comparative study reflect student status after 10 semesters of enrollment and are summarized in Table 1.

(Insert Table 1)
Table 1 indicates that the HORIZONS group has 17 students who have graduated with a baccalaureate degree, 23 students who are currently registered, 5 students who are currently stopped out, and 2 students who are currently on academic drop status. Therefore, 40 of the original 47 students (85%) have either graduated or are currently working towards graduation.

In comparison, the control group has 11 students who have graduated with a baccalaureate degree, 11 students who are currently registered, 12 students who are currently stopped out, and 13 students who are currently on academic drop status. Therefore, 22 of the original 47 students (47%) have either graduated or are currently working towards graduation. Twenty-five of the students in the control group (53%) are currently out of school for either personal or academic reasons.

Since these two groups were matched as entering freshmen on relevant variables for predicting success in college by the Office of the Registrar, the two groups would be expected to perform academically at approximately the same level. However, the group that participated in the HORIZONS Student Support Program has significantly out performed the control group, thereby suggesting that the one intervening variable, participation in HORIZONS, has had a significant influence on student retention in this study. A more difficult question to answer is what exactly did the HORIZONS program do that resulted in this increase in retention and rate of graduation.
All students encounter a large, complex, and demanding environment upon contact with Purdue University. That non-traditional students come less academically prepared has been well documented through research. From 1983 to 1991, HORIZONS students have entered Purdue with average SAT scores 176 points below the overall Purdue average. This academic need must be ameliorated if students are to be retained.

Retention, however, also involves the affective domain; raising issues of commitment, perseverance, belonging, feelings, and emotional maturity in general. In recognition of this complexity, services are designed to stimulate learning in both the cognitive and affective dimensions of human experience. Content oriented instruction focusing on academic skills and strategy development is presented in conjunction with process oriented instruction focusing on personal development and affective skills.

The cornerstone of the project design, and the avenue through which many of the services are provided, is the required course for new students, "Strategies for Effective Academic Performance." This course has been taught since 1983 and is a permanent course in the General Studies Department within the School of Liberal Arts. To address both cognitive and affective needs, the course was designed in two parts. Students meet for three hours per week in a normal classroom setting to accommodate the cognitive portion of the course and meet for two hours per week in a "Community Building/Personal Growth Laboratory" to address the affective portion of the
course. HORIZONS staff teach four sections of this semester-long orientation course in the fall. The course allows HORIZONS staff to:

1. further assess student needs,
2. ensure participation in appropriate program activities,
3. teach needed affective skills,
4. administer academic tests to determine strengths and weaknesses,
5. provide career, personal, and academic counseling,
6. teach effective study methods,
7. develop a sense of community within the student body,
8. teach students to use the Macintosh computers,
9. expose students to cultural programs,
10. initiate and explain tutorial services,
11. apply thinking skills to math, chemistry, and problem solving situations,
12. provide assistance with financial aid,
13. make peer counselor contacts, and
14. assign mentors and assign graded mentor discussion topics.

The classroom portion of the course provides a vehicle for each student to learn about and use study skills and strategies to meet his/her needs. Topics include time management, note-taking, exam skills, critical thinking/problem solving skills, memory skills, listening skills, stress management, reading strategies, levels of learning, and University resources and facilities. The community building/personal growth lab portion of the course allows each student to learn about themselves. Students develop interpersonal skills, improve self awareness, learn what is needed to work in a group, and are able to determine personally appropriate courses of study and career choices. Students individually
meet with the instructor twice during the semester to discuss his/her time management plan, academic performance, and to express concerns. Students are also monitored during five hours of classroom activities per week.

Considering that HORIZONS students are less academically prepared than the average Purdue student, HORIZONS students must have better study behaviors and attitudes if they are to effectively compete. HORIZONS administers the Nelson Denny Reading Test for placement purposes and the Survey of Study Habits and Attitudes (SSHA) and the Watson-Glaser Critical Thinking Appraisal as pre and post tests. The average gain on the SSHA for the 1990-91 academic year was 19 points, from 104 to 123 (similar gains have been recorded every year). This is a change in the average percentile rank from the 50th percentile to the 70th percentile. The problem solving component of the course was taught for the first time the fall semester 1994 and students posted a 4 point gain on the Watson-Glaser after one semester of problem solving instruction. This is a change in the average percentile rank from the 20th percentile to the 35th percentile. Although HORIZONS students made significant gains in critical thinking/problem solving, these skills need to be further developed.

The freshman orientation course also allows for one indirect, but important program component: HORIZONS staff become Purdue faculty in the eyes of the student. Although HORIZONS staff all hold professional staff appointments, students view staff the same as any faculty person. As such, the HORIZONS staff have an effect on student perceptions of Purdue faculty. Students then have "faculty" who are committed to their success and "faculty" who provide them with the skills to become more effective learners. Two of HORIZONS staff have Ph.D.s, three have masters degrees, and all five teach at least one course.
Students realize that HORIZONS’ commitment goes beyond retention to the overall education of students. Since retention requires the collaborative effort of all members of an institution, HORIZONS staff fill more of those roles in a positive and caring way.

In addition to the freshman orientation course, HORIZONS students also receive the following services.

1. Students in the orientation course are provided an opportunity to attend at least one cultural event sponsored by Purdue Convocations. Tickets are purchased in groups as large as 92 or as small as 1.

2. A microcomputer lab with 12 microcomputers is available in the HORIZONS office. Each student is trained in word processing through the orientation course, and students may receive additional training through “Introduction to Microcomputers”, a course taught by HORIZONS staff only for HORIZONS students and offered in the Computer Technology Department.

3. A free tutorial program provides tutoring for any course requested.

4. Students are evaluated using study skills inventories, critical thinking tests, reading tests, interest tests, and career inventories in the orientation course. Results of these tests and informal assessments from classroom participation are used when counseling students.

5. Five professional staff provide personal and academic counseling. Upper-class HORIZONS students are also trained as peer counselors and provide supplemental counseling.
6. The Division of Financial Aid has designated one person to act as a liaison for the HORIZONS program. The liaison knows the HORIZONS students and has been instrumental in helping students complete forms, meet deadlines, and avoid unnecessary problems with financial aid.

To assess the value of each service, HORIZONS students in the matched pairs study were asked to complete a questionnaire. The questionnaire asked students to indicate whether each service was very helpful, helpful, undecided, not helpful, or never used by that individual. The percentage of students responding in each category is presented below each numeric rating.

(Insert Table 2)

It was somewhat surprising that the highest rated benefit was number thirteen, "just knowing that help was available." Ninety six percent of the students indicated this was either very helpful or helpful for them. The sense of security that the program gives students is apparently recognized as a valuable outcome of their participation in HORIZONS. Over 80% of the students participated in and found tutoring and study skills training to be either very helpful or helpful. These two components of the HORIZONS program were viewed by this group of students as the most helpful services. HORIZONS staff agree that the most important things are to teach students how to improve their academic skills and then provide the assistance, through tutoring, to do that. However, all of the services received favorable ratings, indicating that each service had met the needs of some students and that students certainly have different needs.
Table 1

HORIZONS Matched Pairs Retention Results - February 1995

<table>
<thead>
<tr>
<th></th>
<th>HORIZONS</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduated</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Registered</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>Stopped out</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Dropped</td>
<td>2</td>
<td>13</td>
</tr>
</tbody>
</table>

The bar chart compares the retention rates of HORIZONS and control groups for various status categories.
Table 2  

**Student Questionnaire Results**

Please rate the following services regarding their usefulness to you.

<table>
<thead>
<tr>
<th>Service</th>
<th>Very helpful</th>
<th>helpful</th>
<th>undecided</th>
<th>not helpful</th>
<th>never used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tutoring</td>
<td>60%</td>
<td>24%</td>
<td>0%</td>
<td>4%</td>
<td>12%</td>
</tr>
<tr>
<td>Academic counseling</td>
<td>24%</td>
<td>48%</td>
<td>12%</td>
<td>0%</td>
<td>16%</td>
</tr>
<tr>
<td>Peer counseling</td>
<td>16%</td>
<td>12%</td>
<td>28%</td>
<td>0%</td>
<td>44%</td>
</tr>
<tr>
<td>Personal counseling</td>
<td>32%</td>
<td>40%</td>
<td>4%</td>
<td>0%</td>
<td>24%</td>
</tr>
<tr>
<td>Career counseling</td>
<td>28%</td>
<td>24%</td>
<td>12%</td>
<td>4%</td>
<td>32%</td>
</tr>
<tr>
<td>Study skills training</td>
<td>48%</td>
<td>44%</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Community building lab</td>
<td>32%</td>
<td>40%</td>
<td>12%</td>
<td>4%</td>
<td>12%</td>
</tr>
<tr>
<td>Attendance at cultural programs</td>
<td>24%</td>
<td>20%</td>
<td>24%</td>
<td>0%</td>
<td>32%</td>
</tr>
<tr>
<td>Assistance from the HORIZONS financial aid liaison</td>
<td>36%</td>
<td>12%</td>
<td>8%</td>
<td>0%</td>
<td>44%</td>
</tr>
<tr>
<td>Computer training</td>
<td>36%</td>
<td>32%</td>
<td>4%</td>
<td>0%</td>
<td>28%</td>
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<tr>
<td>Use of the HORIZONS computer lab</td>
<td>52%</td>
<td>12%</td>
<td>12%</td>
<td>0%</td>
<td>24%</td>
</tr>
<tr>
<td>Opportunity to receive financial aid for summer school</td>
<td>36%</td>
<td>8%</td>
<td>4%</td>
<td>4%</td>
<td>48%</td>
</tr>
<tr>
<td>Just knowing that help was available</td>
<td>80%</td>
<td>16%</td>
<td>0%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Peer Counselor Training</td>
<td>20%</td>
<td>4%</td>
<td>8%</td>
<td>0%</td>
<td>68%</td>
</tr>
<tr>
<td>Assessment of skills, interests, attitudes through testing</td>
<td>36%</td>
<td>20%</td>
<td>20%</td>
<td>0%</td>
<td>24%</td>
</tr>
</tbody>
</table>