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ABSTRACT

At Thomas Nelson Community College (TNCC), Hampton (Virginia), a study of transfer success was conducted in conjunction with Christopher Newport University (CNU), the primary transfer destination of the community college's students. Detailed records were examined for over 1,800 students in an attempt to identify several statistically significant trends, based on such variables as hours completed before transfer, ethnicity, age, and gender. Study results and faculty discussion made the limitations of this approach apparent, and a new paradigm was developed. Known as the "course-based model of transfer success," it uses a tracking system that examines each course that has a prerequisite that could be met at the university or other colleges. For each course, the program provides a grade distribution broken down according to where the course was taken. In every discipline examined, students who completed course prerequisites at TNCC did as well or better than students who completed the prerequisites at CNU. This approach gives a strong empirical underpinning to the effort to identify strengths and weaknesses at the community college. One table gives chi-square analyses. (Contains four references.) (SLD)

A New Paradigm for Examining Transfer Success

A presentation to
the American Educational Research Association (AERA)

Presented by

Michael Quanty
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A New Research Paradigm to Enhance Partnerships in Community College to University Transfer

Introduction

Research on the success of community college students who transfer to four-year colleges and universities has produced mixed results (Diaz, 1992). Some studies have shown that community college students perform at levels comparable to or better than native students (e.g., Vaughan and Templin, 1987). Others have found the opposite effect (e.g., Head, 1992; Stoltz, 1992).

At Thomas Nelson Community College (TNCC) we conducted a major study on transfer success in 1989 with Christopher Newport University (CNU), the primary transfer destination of our students. We examined detailed records for over 1,800 students and were able to identify several statistically significant trends based on such variables as hours completed prior to transfer, ethnicity, age, and gender. A group of faculty from both colleges pored over the analyses and discussed the trends. It was not until we came to the point of making recommendations that we began to see the limitations of this approach, particularly from a faculty standpoint. A finding that women and older students tend to perform better is interesting from a sociological perspective and may have implications for student services personnel, but it has little or no relevance to the curriculum and is of very limited use in advising. Information on how various majors perform upon transfer provides more meaningful data but little in the way of direction.

For community colleges and their university partners in the transfer effort to work effectively together they must have usable data. By this we mean data that they can take responsibility for **and** that they can realistically change. Moreover, the data must be relevant to faculty on a personal level. Findings based on sociological and demographic comparisons generally do not meet this test.

In 1993, working with Christopher Newport University, we devised a new paradigm that we feel is much more useful to both colleges and that is directly relevant to faculty and the curriculum. We call it a *Course–Based Model of Transfer Success.* The idea is simple, "relatively" easy to implement, and provides comprehensive data that are immediately and obviously relevant to faculty at either institution who are interested in improving their courses. This past year we have expanded the program to include Old Dominion University (ODU) and Tidewater Community College (TCC).

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Basically, we developed a tracking system that examines every course which has a prerequisite that could be met at CNU or ODU, TNCC or TCC, or at another college. For each course so identified, the program provides a grade distribution for students broken out by whether the prerequisite was taken at the university, at TNCC, TCC, or at another institution, by semester. A summary for each course totals grades across all semesters and a discipline summary totals grades of all courses in the discipline and then for all semesters included.

The strength of this methodology lies in its simplicity. Few faculty would argue that students who passed their course should not be prepared for subsequent courses which require that course as a prerequisite. The implied contract creates an obligation. If I say a student is ready for advanced study, I need to stand behind that assertion. I will want to know if they do not succeed and why.

Results

Table 1 summarizes the Chi Square analyses for 18 disciplines at CNU. It shows grade distributions for students who completed prerequisites at CNU, at TNCC, or at any other college. Grades were collapsed to two categories: productive (A, B, C, P) and nonproductive (D, F, W). We ignored incompletes and audits and examined only the first instance in which a target course was taken (e.g., if someone took a course 3 times earning a W, then an F, and finally a C only the W would count). For the prerequisite course we employed the opposite rule; only the last grade earned was used. Grades also were collapsed for all the courses in a discipline and then across all semesters from Spring 1990 through Fall 1994. Even with this level of collasping five disciplines still have fewer than 20 instances of students taking a CNU course after completing the prerequisite at TNCC.

Five comparisons produced statistically significant differences. The disciplines were business, computer science, economics, finance, and psychology. In four of the five, students completing prerequisites at TNCC were more likely to eam productive grades than students completing them at CNU or at another college. In the fifth, computer science, students completing prerequisites at other colleges were more successful than those doing so either at CNU or at TNCC.

Data from ODU are not available as of this writing.

Discussion

The results of our study with CNU were not dramatic. They were, however, gratifying and instructive. In every discipline examined students who completed course prerequisites at TNCC performed as well as or better than those who completed the prerequisites at CNU. This information gives a strong empirical underpinning to our articulation efforts. We can assure both our students and the faculty at CNU that students from TNCC are academically prepared for their CNU coursework. We are now proceeding to examine emprically the other assumptions implicit in our 2+2 articulations.

Currently we are analyzing course schedules to determine whether a student can in fact complete a four-year degree by following the prescribed sequence. Having completed two years at TNCC, can students meet prerequisite requirements and schedule classes so they can complete the BA in two additional years? This is not a question that we can answer automatically but it is one our customers should be asking. After this we tackle the issue of general education outcomes.

The major contribution of our new course-based model is that it has changed the nature of the dialogue. By concentrating on processes that faculty own and can change, it gives them information that at times may be disconcerting but at least it is clearly focused on a manageable problem. We can solve the problem by fixing a course, not society. That's empowerment.

References

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Table 1
Chi-Square Analyses
Spring 1990 to Fall 1994

Accounting	265	66.4	33.6	98	74.5	25.5	103	68.9	31.1
Biology	135	83.0	17.0	11	91.0	9.0	19	79.0	21.0
Business *	2017	90.3	9.7	398	93.7	6.3	419	92.1	7.8
Chemistry	68	54.4	45.6	24	45.8	54.1	18	72.2	27.7
Computer Science *	1564	74.8	25.1	136	75.7	24.2	133	87.2	12.7
Economics *	918	87.4	12.5	166	93.9	6.0	195	90.7	9.2
English	2549	81.9	18.1	68	76.4	23.3	395	78.2	21.8
Engineering	208	77.9	22.1	12	83.3	16.7	21	61.9	38.1
Finance *	820	79.6	20.4	198	89.9	10.1	200	83.5	16.5
Fine Arts	66	93.9	6.1	11	90.9	9.1	10	100.0	—
French	814	83.7	16.3	21	90.5	9.5	75	88.0	12.0
German	298	70.5	29.5	1	100.0	—	35	68.6	31.4
History	104	74.0	26.0	12	66.7	33.3	58	87.9	12.1
Math	378	74.1	25.9	46	65.2	34.8	57	75.4	24.6
Physics	102	82.3	17.8	7	85.7	17.3	17	76.5	23.5
Psychology *	4689	79.2	20.8	267	85.8	14.2	666	82.1	17.9
Sociology	448	87.1	13.0	71	95.8	4.2	155	89.7	10.3
Spanish	1233	74.4	25.6	40	62.5	37.5	121	77.7	22.3

*** Chi-square analysis showed difference to be significant ($p < .05$).**