

TRANSFERRING LOWER LEVEL BUSINESS CORE COURSES FROM TWO-YEAR COMMUNITY COURSES: ARE STUDENTS PREPARED FOR UPPER LEVEL BUSINESS CORE REQUIREMENTS?

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ABSTRACT

Business faculty at a small regional university perceived that students who chose to complete one or more lower level business core requirements at the two year technical (community) colleges in the state were not adequately prepared for the upper level business core requirements. A study of all graduates over the five-year period from 1996 through 2000 provided information to compare relative performance. Use of the non-parametric Wilcoxon Rank Sum test indicated that there were few differences in the performance in upper level business core requirements based on where the lower level prerequisites were taken.

INTRODUCTION

Research on transfer student academic success is not new to academia. Transfer student research gained momentum in the 1960's and has continued on and off since then. To date, the vast majority of research on transfer students has focused on the academic performance of the general transfer student population, rather than assessing performance within individual majors.

The interest in transfer student issues has increased correspondingly as states have established formal articulation agreements between community colleges and universities. By the mid-1980's eleven states had formal documents on credit-transfer from two-year institutions to four-year institutions. Studies of these documents reveal that they have several common features. One of the most important components of these plans is that a state authority is charged with enabling the master plan. As well, these agreements address specific general education requirements or associate degree requirements to ensure transfer (Kintzer & Richardson 1986). Research also reported that some four-year institutions were leery to accept coursework and/or grades from two-year colleges because of different academic standards and requirements (Richardson & Bender, 1985).

REVIEW OF LITERATURE

Research has suggested that transfer students are inclined towards more practical majors, as opposed to science, mathematics or languages. A majority of transfer students end up in “professional” majors like business, education, human services or nursing. Early research on transfer students in the 1970’s exhibited these same phenomena, with the most popular majors being Business Administration and Education (Bolte & Coleman, 1979). Later research also revealed that transfer students are narrowly focused on their major course requirements and therefore, over a third have no science, math or computer science courses upon transfer (Change, 1995). These academic weaknesses or “holes” in the background of transfer students have contributed to the perception that these students are not as well prepared as native students for upper division coursework.

Fredrickson’s (1998) research into GPA and enrollment patterns for post-transfer business students showed stable GPA’s and solid persistence patterns (Fredrickson, 1998). However, in this sample, business students had lower persistence rates after transfer than engineering or human services students (Fredrickson, 1998). Additional research also supports the idea that there is a difference in the graduation rates of transfer students across academic disciplines (Bolte & Coleman, 1977).

DATA FOR THIS STUDY

In order to test whether students were receiving adequate preparation in lower level business courses, data was collected for five years for graduates from the School of Business. The choice was made to include only those students who actually graduated from the program, as only those were likely to have completed all seven upper level business core courses. There were 346 graduates over the Fall 1996 through Spring 2000 semester. Of that total, 220 students completed all of the seven lower level business core courses at the home institution: 95 completed one or more at a two-year technical college, 21 completed one or more at other four year schools, and 8 completed some lower level requirements at a foreign institution. All but 5 students completed all the seven upper level requirements at the home institution. Those 5 students transferred one or more of the upper level requirements from four-year schools considered similar to the home institution. For purposes of this study, only those students who transferred lower level requirements from two-year technical colleges were compared to those students who took all the lower level requirements at the home institution.

METHODOLOGY

Due to concerns about coverage of business perspectives for accreditation efforts, the decision was made to consider the impact of taking each lower level business requirement at a two-year technical college. The comparison focused on student performance in upper level business core courses comparing those who had taken all the lower level requirements at the home institution to those who had transferred one or more of the lower level courses from a technical college. An upper level business core course GPA was calculated for all the students.

A normality plot of the data indicated that it was not normally distributed, thus parametric statistical tests were not appropriate for testing differences. Thus a Wilcoxon Rank Sum test was completed to test the equality of medians of the transfer students compared to those not transferring the course. The Wilcoxon Rank Sum test is a non-parametric procedure that is a powerful statistical tool that can be properly used regardless of whether the data are normally distributed.

RESULTS

The results of the analysis for the most part do not show major differences between those transferring credits and those who take the lower level requirements at the home institution. As shown in Table 1 below, students who transfer do make higher grades in the lower level courses when taken at the two-year schools. However, performance in the upper level business core courses is not negatively impacted when the grades in the upper level courses are compared for the two groups. All but one of the tests for significant differences in upper level performance showed no significant difference in a two-tailed test of differences between medians. Interestingly, the one course that showed a significant impact indicated that students who transferred Accounting 202 actually performed better in upper level courses than those who took the course at the home institution.

The analysis shown in Table 1 looked only at the effect of transferring specific courses. Perhaps there is a cumulative effect. The student who transfers only one or two inferior courses may not be negatively affected since some of the courses like economics and accounting are two-course sequences. What about students who transfer several of the lower level required courses? To test that impact the data set was resorted into categories based on the number of lower level courses transferred into the home institution. Again performance in upper level required courses was examined to determine if any statistically different performance was observed.

Course	Transfers Course GPA	Lander Course GPA	Transfers Upper Core Level GPA	Lander Upper Core Level GPA	Z-statistic	p-value
ECON 201	2.93	2.86	2.65	2.76	-1.09	.28
ECON 202	3.05	2.83	2.70	2.77	-.59	.56
ACCT 201	2.81	2.78	2.71	2.76	-.51	.60
ACCT 202	2.72	2.59	2.82	2.75	-22.4	.00*
BA 205	3.52	3.20	2.74	2.74	.22	.82
BA 225	3.22	2.76	2.94	2.75	1.43	.15
BA 251	3.36	3.10	2.75	2.79	.60	.55

* Significant at .01 level

As shown in Table 2, students who take transfer courses tend to make better grades in the lower-level business core courses than those who take the lower level requirements at the home

institution. For students who take the lower level requirements at the home institution, the upper level business core grades are lower than the lower level grades. Likewise, there is a tendency for grades to decline for those who transferred the lower level requirements. However, for two categories, those transferring five of seven requirements and those transferring all seven requirements, the upper level grades exceeded those who did not transfer any from a two-year technical college.

Number of Courses Transferred	Lower Level GPA	Upper Level GPA	Z-Statistic	p-Value
None	2.87	2.71	NA	NA
1	2.89	2.71	-.91	.361
2	2.91	2.29	-2.34	.019**
3	3.03	2.64	-.61	.537
4	3.05	2.71	.24	.803
5	3.21	3.00	-.19	.842
6	3.33	2.71	-.30	.758
All 7	3.35	3.14	1.92	.054*

* Significant at .05 level
 ** Significant at .10 level

Though there was a tendency for upper level grades to be lower for students transferring requirements, there were not any statistically significant differences except for those transferring two and those transferring all seven at the .05 and .10 levels respectively. Sufficient information was not available to determine why those two categories showed significant differences while others did not. Anecdotal evidence suggests that some of the weaker home institution students may have been included in the two-transfer category, thus they were likely to have enrolled in certain courses that were particularly difficult at the home institution. For those who transferred all seven lower level requirements, there appears to be a disproportionate number of older, more serious students that could easily explain the better performance in the upper level courses.

SUMMARY AND CONCLUSIONS

Based on this analysis, it appears that the concern over inadequate preparation of transfer students in the lower level business courses is not justified. At least for those students who persist to graduation, performance in upper level business requirements is not adversely affected by taking lower level requirements at the two-year technical colleges in the region. Except for one small subgroup, those students transferring two lower level requirements, there are no significant differences in performance. There are some other issues that could be addressed that were not included in this paper. For example, data was not easily available to determine if there was a difference in dropout rates between those who completed lower level requirements at the home

institution versus those who transferred lower level requirements. It is also possible that performance in individual courses within a major or emphasis area, like Econ 201 or Acct 201, could affect performance in upper level courses within that major.

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