

FACTORS CONTRIBUTING TO STUDENT SUCCESS: EXPANDING A STUDY

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ABSTRACT

This paper presents the most recent stage of a long-term longitudinal academic program assessment project. The project involves collection and analysis of freshman, sophomore, junior, senior, alumni, and employer data and has been expanded to address retention in addition to the original purpose of collecting program assessment data. The additional questions focus on determining factors contributing to student success. The authors anticipated the results that would indicate that students' perception of all success factors increase over their term as college students. However, the results showed that the only statistically significant increases were for faculty relationships and structure of the curriculum.

INTRODUCTION AND BACKGROUND

All accredited academic institutions are concerned with program assessment. In the business department of a small western state college, program assessment now includes surveys of current students as well as alumni, beginning this academic year. The routine annual assessment program has been expanded to address retention as well. In the past, the program assessment has included use of a nationally-normed standardized test and other measures, including a longitudinal survey of students' demographics and perceptions. Separate surveys with unique as well as common questions have been administered to freshmen, sophomores, juniors, seniors and alumni.

In spring 2007, to ascertain retention information, the sophomore survey included the open-ended question "What has contributed thus far to your success as a college student?" Responses to that question prompted the researchers to add several Likert-scale type questions to the fall 2007 surveys for all groups. The questions focus on several factors that the spring 2007 students claimed and that the scholarly literature indicates contribute to student retention and student success.

METHODS AND RESULTS

From the literature review and from earlier versions of this study, several factors emerge as having positive relationships with student success. Highest on the list are positive relationships with faculty, self-efficacy and support and encouragement from family and friends. Other important factors include time management skills, study skills, participation in college activities and the nature of the curriculum.

From previous components of this research project, these authors have noted that faculty relationships with students become more meaningful and self-efficacy increases as students move through the educational process. Sophomore relationships with faculty are not as developed as are those of seniors. Sophomore self-efficacy is not as developed as alumni self-efficacy. Consequently, students' perception of those factors' contribution to their success is likely to mirror that maturation process. That is the hypothesis of this study and the rationale used in determining the methodology listed below, specifically that each of the factors that students consider to be important in their success increase in importance

over their term as students.

Based upon the results from the spring survey mentioned earlier, questions were added to the survey instruments that have been used for several semesters for program assessment. The same questions were asked of freshmen, sophomores, juniors and seniors. Data was collected via WebCT from 380 of 513 eligible students, or approximately 74% of the population. The complete set of survey data was exported from WebCT into Excel spreadsheets where means were calculated and trend analyses were performed. Then data for this paper were extracted into SPSS v.14.0 for analysis using one-way ANOVA technique. The survey questions analyzed were:

- How important have faculty relationships been to your success in your business degree?
- How important has your belief in yourself and your ability to succeed [self efficacy] been to your success in your business degree?
- How important has been the support and encouragement from your family and friends to your success in your business degree?
- How important have time management skills been to your success in your business degree?
- How important have your study skills been to your success in your business degree?
- How important has been your involvement in college activities outside the classroom been to your success in your business degree?
- How important has the content and design of the business curriculum been to your success in your business degree?

The underlined words are the descriptors that appear in the tables below. The responses for each of the questions were arranged as a Likert-like scale from “5. Very important” to “1. Very unimportant.” Simple means of the questions for each class were calculated and summarized in Table 1.

Table 1. Contribution by Several Factors to Students’ Success

| Factors | Fr | So | Jr | Sr | Overall Slope | Increase | F | Sig. | Groups unequal? |
|-----------------------|------|------|------|------|---------------|----------|-------|------|-----------------|
| Faculty relationships | 3.86 | 3.64 | 4.19 | 4.27 | 0.178 | Yes | 6.791 | .000 | Yes |
| Self-efficacy | 4.45 | 4.60 | 4.67 | 4.71 | 0.085 | Yes | 1.548 | .202 | No |
| Friends and family | 4.34 | 4.36 | 4.52 | 4.29 | 0.001 | Minor | .724 | .538 | No |
| Time management | 4.27 | 4.41 | 4.49 | 4.65 | 0.122 | Yes | 2.397 | .068 | No |
| Study skills | 4.23 | 4.32 | 4.19 | 4.33 | 0.017 | Minor | .428 | .733 | No |
| College activities | 3.10 | 2.78 | 2.50 | 2.73 | -0.139 | No | 2.424 | .065 | No |
| Curriculum | 3.57 | 3.46 | 3.88 | 3.86 | 0.129 | Yes | 3.375 | .019 | Yes |
| Grand means | 3.97 | 3.94 | 4.06 | 4.12 | 0.056 | Yes | | | |
| N | 89 | 184 | 58 | 49 | | | | | |

In addition to the means, frequencies were tabulated and bar charts produced (not included herein). Interesting patterns were seen in the bar charts of frequencies. Consequently, the authors decided to explore further by calculating grand means of each class as well as the slope of the lines drawn through the class means for each question. Only for two questions (self-efficacy and time management) did the lines indicate the consistent positive increase from one class to the next. That visual observation was not

consistent with the general hypothesis of this research. The authors noticed that most of the anomalies were in the means of the sophomore class. To illustrate that on a macro scale, the grand means for all questions were calculated. As can be seen in Table 1, the grand mean for the sophomore class also did not show an increase over the freshman grand mean, although the slope of the grand means is positive.

Examination of the slopes of the means showed that, through the four years, six of the seven factors did increase in their perceived importance to students' success, although two of those factors (study skills and support and encouragement from family and friends) increased only minimally. Conversely, one factor decreased in importance, specifically involvement in college activities.

The authors then turned their attention to determining whether there were true statistical differences among the class means for each question. Only for faculty relationships and design and content of the business curriculum were there significant differences in their importance to students' success. For two others—time management and involvement in college activities—the differences between classes is significant at a lower level. For the other factors, there was not a significant difference among classes, even though all three factors showed a positive slope of the means.

The hypothesis that those things that are important to students' success increase over time was effectively disproved. While six of the seven factors did show an increase over time, that increase is only statistically significant for faculty relationships and curriculum. Arguably, as students progress through classes, they appreciate more those things that the institution provides for them, faculty and curriculum. Yet those qualities they bring with them, such as self-efficacy, do not increase statistically significantly over their four years.

These findings need to be examined further. Of particular interest to the authors is to discover the nature of the impact of the sophomore anomaly noted above. The study will continue in this form for at least one additional semester. The researchers will attempt to separate those students who are not truly sophomores or who are not business students from the sophomore class data. Those factors might have had an undue influential effect on the results.

CONCLUSION

As part of a larger project to create a longitudinal multi-purpose program assessment survey system, the business department in a small western state college collected data from 380 students regarding factors that have contributed to their success as business students. It was hypothesized that factors which students consider to be important to their success would increase in importance as students mature.

The results of the research caused rejection of the hypothesis. While six out of seven factors increased numerically in importance, only two factors (faculty relationships and curriculum design) did so in a statistically significant manner. One might be tempted to draw a conclusion that students learn to appreciate some factors that the college provides but only marginally increase the importance of factors they bring to the mix, such as self-efficacy. Of course, that conclusion is premature and will continue to be examined in this and future research with particular attention being paid to the sophomore anomaly.

LITERATURE REVIEW AND REFERENCES

The Literature Review and list of References are available from the authors upon request.