Differences between Leadership and Academic Scholarship Recipients' Retention and Cumulative Grade Point Averages

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This study examined differences in retention rates and college grade point average of two types of scholarship students. Selection criteria for Academic Scholarship recipients included high school grade point average and ACT scores while Leadership Scholarship criteria focused on leadership ability as demonstrated in high school and/or community extracurricular activities. No significant difference was found in college grade point average, however Leadership Scholars achieved higher retention rates. Results suggest that predictors of college involvement may be indirect predictors of college success. Implications for admission, scholarship selection, and intervention are discussed.

Predicting the success of college students has become an essential issue for higher education institutions and has received a fair amount of conflicting attention in the research literature. This type of research is important for institutional selectivity, scholarship allocation, and the development of appropriate interventions to increase the likelihood of college success in students who would not have been predicted to succeed. The traditional predictors of college achievement have been high school grade point average and college entrance examination scores (Hamilton, 1990; Pettijohn, 1995). These predictors, by themselves and in combination, have been the subjects of much research and criticism (Baron & Norman, 1992; Crouse & Trusheim, 1991; Stricker, Rock, & Burton, 1996).

There is disagreement in the literature on the predictive value of traditional assessment tools (standardized exams and high school GPA). Some studies (Baron & Norman, 1992; Hamilton, 1990; Kaplan, 1992; Pettijohn, 1995; Sawyer & Maxey, 1979) have found that the traditional assessment tools were predictive while others (Crouse & Trusheim, 1991; Stricker et al., 1996) questioned the predictive validity of traditional assessment tools. There seems to be general

agreement that a combination of high school GPA and standardized exams is a better predictor than standardized test scores alone (Kaplan, 1992; Sawyer & Maxey, 1979; Willingham & Breland, 1982). However, Crouse and Trusheim (1991) contend that the majority of students are admitted based on the predictive ability of their high school GPA alone. They claim the SAT exam only serves as a redundant item in the admissions process.

Mouw and Khanna (1993) found the best predictors of all variables tried still consisted of academic performance (HS rank) and a measure of academic aptitude (SAT/ACT scores). Unfortunately, "if the variable is dichotomized into 'failures' and 'non-failures' about thirty percent of the students that were predicted to succeed had failed. About 50% of the students that had been predicted to fail had either graduated or remained in good standing" (p. 333). While academic performance and aptitude may be the best predictors, they leave a large amount of error. Many institutions and researchers are exploring other qualities that might play a factor in the "college admission equation."

The study of sub-groups is an increasingly common approach. The increase in the number of ethnic minority college students encouraged researchers to examine current practices to find if they are as appropriate for minorities as they are for "White" students (Fuertes, Sedlacek, & Liu, 1994; Gerardi, 1990; Rodriquez, 1996). Due to a concern that college entrance exams and high school grade point averages may discriminate against minorities, predictors used were expanded. Hood (1992) looked at academic and noncognitive factors for Black men but concluded the best predictor of first-semester grades for Black men was their high school rank. Although it was the best predictor, the results only explained 10% of the variance.

Arbona and Novy (1990) used the Non-Cognitive Questionnaire (NCQ) to examine academic predictors for minority students. The NCQ assesses eight factors: certainty of academic plans, support for college plans, community involvement, long term academic goals, perseverance, expected academic difficulty, academic familiarity, and leadership. The only significance found regarding persistence was that nonacademic variables predicted persistence for White students. They concluded that, "At this point in time, no firm conclusions can be made regarding the predictive validity of the NCQ; more research is needed" (p. 421).

White and Sedlacek (1986) used the NCQ as a means to measure the helpfulness of assessing noncognitive characteristics in addition to the traditional predictors of college success, during and beyond the first year. Successful leadership experience and positive self concept significantly added to predictions of second and fourth semester grade point averages based on traditional predictors, while successful leadership and a strong support person significantly added to predictions of third semester grade point average. Although this particular study was small, the NCQ has proven to be a valid predictor of undergraduate success in other studies (Tracey & Sedlacek, 1985).

In a separate study, Sedlacek and Adams-Gaston (1992) found that scores on the SAT were not predictive of first-semester GPA for student athletes. The

results of the NCQ did prove to have predictive ability for this population.

Pickering, Calliotte, and McAuliffe (1992) looked at the combination of noncognitive and traditional predictors of college success. Their noncognitive variables included reasons for attending college, reasons for attending their particular university, number of hours spent a week in a variety of activities during the senior year of high school, frequency of occurrence of academically and socially related experiences during the senior year of high school, self ratings of various traits and abilities in comparison to peers, and predictions of occurrence of specific academic, extracurricular, work-related, and social situations in the freshman year. While no single noncognitive variable was found to be a strong predictor of success, they concluded, "a combination of cognitive and noncognitive variables is more powerful in predicting academic difficulty or academic success . . ." (p. 25).

In recent years, a wider variety of nonacademic variables have been researched as college predictors. With a decrease in the predictive validity of the SAT, Wolfe and Johnson (1995) looked at personality variables. The personality variables that were significant were those associated with self-control (organization, control, conscientiousness, and self-efficacy). Other predictors found to be significant include time-management (Britton & Tesser, 1991), academic self-concept (Gerardi, 1990), students' attitudes (House, 1995), and the Procrastination Assessment Scale (Wesley, 1994). Arbona and Novy (1990) found that for White students, academically related variables are the best predictors for grades, whereas nonacademic variables are the best predictors for persistence. Once a student gains admission into college, it is the hope of the institution that the student remains enrolled. Yet, colleges and universities are still looking for accurate retention predictors.

A report by the Study Group on the Conditions of Excellence in American Higher Education (1984) suggested that the more students get involved on campus, "the greater will be their growth and achievement, their satisfaction with their educational experience, and the more likely they are to continue their learning" (p. 17). Their findings are consistent with theory (Astin, 1985; Chickering, 1969; Chickering & Reisser, 1993). Stoecker, Pascarella, and Wolfle (1988) found that college social participation had a statistically significant positive effect on bachelor's degree completion. Waggener and Smith (1993) added that students' level of involvement and success are important factors in the decision to enroll in the second fall semester of college.

A wide diversity of research continues to point to college involvement as a strong influence on persistence. In Pascarella and Terenzini's (1991) comprehensive review of the literature on college outcomes, research seemed to support a positive influence of student involvement on various aspect of college including educational attainment, persistence, and occupational choice and attainment. Willingham and Breland (1982) concluded that high school rank and admission test scores were very accurate in predicting successful college students. However, success was not always defined just with academic success (grade point average). Several institutions in their study placed almost equal

emphasis on scholarship, leadership, and accomplishment. Cross's (1985) research supports their suggestion that the strongest addition to the traditional predictors of college success was a measure of persistent and successful extracurricular accomplishment in high school. Perhaps, colleges should look at predictors of college involvement as indirect predictors of college success.

It was the purpose of this study to examine the differences in the retention rate and college grade point average of two types of scholarship students. One group of students was selected for scholarship on the basis of high school grade point average and ACT scores, while the other group was selected for a comparable scholarship on the basis of leadership ability as demonstrated in high school and/or community extracurricular activities.

The hypothesis of this study was that success rates in college, as defined by retention and cumulative grade point average at the end of their third year, will not differ significantly between students selected for scholarship based on college entrance examination scores and high school grade point average and those selected for a comparable scholarship based on leadership activities in high school. The students selected for scholarship based on leadership activities in high school are required to be actively involved in student activities in college. It is hypothesized that the leadership / involvement combination will have a positive impact on retention and grade point average.

Method

Participants

Students were randomly selected from all first year students receiving a Leadership Scholarship or an Academic Scholarship, with comparable compensation, in the academic years 1992-93 and 1993-94 at a large, public, urban university. The Academic Scholarship chosen for comparison was based entirely on comparable compensation (tuition expense). There was no effort to compare Leadership Scholarship Recipients to more prestigious Academic Scholarships covering tuition, room and board, etc. Thus, the compensation of the scholarship was a controlled variable.

Selection for an Academic Scholarship was based solely on academic criteria (minimum 26 ACT and a 3.0 high school GPA). Leadership Scholarship Recipients were selected based on proven leadership accomplishment in high school or in the community (e.g., student government president, Yearbook Editor, continuous volunteer commitment, etc.). Minimum academic requirements were an ACT score of 20 and a 2.0 high school grade point average, the same as the admission requirement for the university. Sample size for the leadership group was 33, with a mean high school GPA of 2.53, and a mean ACT score of 23.70. The sample size for the academic group was 58, with a mean high school GPA of 3.32, and a mean ACT score of 27.89. Samples for both groups were traditional age students entering directly from high school. The percent of females and males was comparable for each group. The leadership group had a slightly higher, but not statistically significant, number of minority students (19.8% vs. 18.1%).

Leadership Scholars took a required section of the "Introduction to The University" (ACAD 1100) course. Academic Scholars were not required to take ACAD 1100; however, most of them did. This course provided students opportunities to learn about the University's resources, interact with faculty and administration, and become involved with student activities. Additionally, Leadership Scholars were required to be involved in student activities and/or organizations. Academic Scholars had no such requirement.

Data Collection

At the end of the third year, retention and college cumulative grade point averages were compiled using the university's student information network. Retention was operationally defined as a student still enrolled at the end of their third year. A graduate student, with no previous knowledge of the students being compared, collected the data and computed the statistical analysis.

Results

Grade point averages for the two groups at the end of their third year were compared using a t-test statistical analysis. The analysis revealed no significant difference between the Leadership Group ($M = 2.8188$, $SD = .763$) and the Academic Group ($M = 2.997$, $SD = .443$) grade point averages ($T(89) = .223$, $p > .05$). Retention rates for the two groups at the end of the third year were compared using a chi-square statistical analysis. Of the students in the Leadership Group (N = 33), 29 (87.9%) were still enrolled. Of the Academic Group (N = 58), 39 (67.2%) were still enrolled. A chi-square analysis revealed a significant difference ($X^2 = 4.69$, $p < .05$).

Discussion

The results of this study point to several interesting implications. The group of students selected for scholarships on the basis of leadership activity in high school performed equally well academically, as measured by university cumulative GPA. This fails to reject our hypothesis. Further, it provides support for using noncognitive variables, specifically leadership experience combined with student involvement, in predicting academic success. Those students exhibiting higher levels of leadership in high school, who may not have performed as well academically, can likely perform equally well academically in college, especially if they are actively involved in college. Predictions of grade point averages for these two groups based on standardized test scores and high school grade point averages alone would not produce accurate results.

In addition, the retention rate for the Leadership Sample is higher than that of the sample of students selected for scholarship based on academic achievement. An impressive 87.9% of the Leadership Sample remained enrolled with only 67.2% of the Academic Sample. This is consistent with Arbona's and Novy's (1990) findings that leadership is a significant NCQ predictor of success. There is a number of well-known research studies (Astin, 1985; Chickering & Reisser, 1993; Cross, 1985) supporting student involvement as a significant variable in retention. Involvement includes but is not limited to student leadership.

Leadership Scholars in this study were required to be involved. There is no

way of separating the impact of leadership qualities from student involvement. This study does demonstrate, however, that the combination of student leadership qualities and student involvement has a positive impact on retention.

The retention and academic success of the Leadership Students may have been influenced by the special section of the required "Introduction to the University" class. While most Academic Scholarship Recipients took a similar class, they did not have a class especially for them. Any positive group effect from the individualized attention received as a result of the course is not a controlled variable. Furthermore, students selected for the Leadership Scholarship are required to participate in student activities. The participation requirement itself may force students to become more involved with the institution than they would otherwise. Much of our theoretical basis regarding student involvement (Astin, 1985; Chickering, 1969; Cross, 1985) does not speak about required involvement. There is no way to know how many "leadership students" would have become actively involved due to their past involvement in high school without it being a scholarship requirement. These results provide further support that student involvement can positively influence persistence and student learning, even when involvement is required.

While high school leadership may not be a direct predictor of college success, it may be a predictor of college involvement and thus, an indirect predictor of college success. Colleges must also remind themselves that success is evidenced by, but not limited to, college GPA and persistence. Neither this nor any other study has attempted to include all measures of collegiate success.

Recommendations

As higher education continues to explore selection and intervention strategies to enhance the retention and success of its students, student affairs professionals can consider these results in the admissions and scholarship selection processes, as well as program planning. These results do not suggest positive outcomes for students selected for scholarship based solely on academic achievement. This group's retention was only 67.2%. Although this study can not measure the impact of institutional intervention, it is possibly necessary for universities to reach out to its special ability students, as well as its special needs students. The assumption that students with impressive high school GPAs and standardized test scores have fewer personal and developmental needs is faulty. To assume they do not have difficulties adjusting to college is dangerous and indifferent. Without additional resources, universities are challenged to find effective interventions at reasonable expense. The variety of interventions is limited only by the creativity of the profession. One example could include a section of an "orientation to the university" class. Many institutions now offer, if not require, an orientation course. This "reaching out" could include sections of this course specifically for scholarship students. Since most students take the course anyway, there would be no extra cost to the institution or the student. The needs of these students may not be the same as the needs of other students. In targeting this and other groups individually, it may be possible to better meet their needs and thus increase their retention rate.

As for scholarship selection, this study suggests the consideration of other personal qualities in the process. The students in the Leadership Sample do not have high ACT scores or high school GPAs, yet they are performing as well as those students who do. Personal qualities cannot be separated from the intervention, but it is likely that leadership ability and high school involvement play some part.

Further research should attempt to separate any personal qualities used in selection from any intervention once enrolled in the university. This information could provide additional support for desirable traits in scholarship students other than academic achievement alone and for institutional intervention to help acclimate students to the university's expectations, resources, and opportunities. Any intervention that may directly or indirectly increase retention and grade point averages needs further examination.

Due to monetary compensation being a controlled variable, we did not compare Leadership Scholars to "highly prestigious" Academic Scholars. Interesting future research could include a comparison of Leadership Scholars to Academic Scholars with larger ACT and high school GPA differences between groups. It is possible that extreme scores (e.g., 32 ACT and 3.8 GPA) are more predictive than the more moderate scores in this study.

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