

An Examination of a Cross Sectional Summer Bridge Programs for First-Generation and At-Risk College Students

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Preview

Many colleges are pursuing innovative alternative approaches to developmental education that aim to accelerate students' progress in gaining important academic competencies. Summer bridge programs are one such approach. These bridge programs offer underprepared and at-risk students the opportunity to advance toward college-level coursework during the summer before they begin college. These summer bridge programs have grown increasingly popular as a strategy for providing students with the knowledge and skills required for college success. Many programmatic approaches and resources have been developed to address this issue, such as providing general education freshman courses in reading, writing, peer counseling programs, upper class and faculty mentoring programs, which provide at-risk students the admission, the academic preparation, and social support. These support are designed with the intention of helping first-generation college students succeed by introducing them to college campuses services, taking actual courses for college credit, and providing peer advisors and mentors, faculty, and staff as support system before and during the official school year. This literature review examines recent research on Bridge Program assessments with examples selected from 4 cases of diverse colleges and universities, public universities with open access to students of diverse backgrounds and experience. This review offers suggestions on which evaluation methods warrant use in future assessments, so that Bridge Programs can continually be improved to meet the needs of the participating students and ensure judicious use of resources. This research area is of interest as I currently direct a Summer Bridge Program and academic enrichment program, and have a career of over 25 years in higher education administrative career. During this time, I have gotten to know several first-generation college students on a very personal level. Many of them took on a dual identity as they tried to juggle their college climate, and the misguided perceptions of college that their parents had provided during their childhoods.

Keywords: Bridge programs, first-year student retention and transition, education and social policies, persistence to degree completion

Introduction

In 2016, only 60 percent of students had completed a bachelor's degree they started in 2010 (US Department of Education). The high drop-out rate is attributable to external factors, including insufficient financial aid, difficulty commuting to a distant university campus, and separation from friends and family, it is often due to factors related to the university climate. Students who lacked a sense of belonging on university campuses, and students who did not perceive their university as providing and fostering a supportive environment were more likely to drop out of college than students who did (Rhee, 2008).

This information is ever more critical for students from traditionally disadvantaged backgrounds, such as students of color and students from low socioeconomic strata (Murphy, T. E., Gaughan, M., Hume, R., & Moore, S. G. Jr. 2010; Castleman & Page, 2014)., Murphy, 2010. Students of color continually report experiencing high amounts of stress at predominately Caucasian college campuses, and students from low socioeconomic backgrounds continually perceive a lack of belonging, which influences their willingness to participate in class and seek help when needed (Ostrove & Long, 2007).

Bridge Programs are designed to provide academic and social support for historically low-income, first generation undergraduate students as they transition into college. Ultimately, Bridge Programs aim to decrease the number of historically disadvantaged students who drop out of college each year.

I hope my research provides an incentive for these programs to continue to be evaluated in a productive manner. And lastly, I hope my research finds reasons for these Programs to continue to be funded, implemented, and improved on college campuses across the country.

Literature Review

Overview

During the last fifty years, nearly half of all students who entered a two- or four-year university withdrew without obtaining a degree (U.S. Department of Education, 2018). Students from low socioeconomic backgrounds, ethnic minority students, and students who were the first in their family to attend college were particularly vulnerable to this attrition (Braxton, Hirschy, & McClendon, 2005). The following literature review examines current research on the backgrounds and attrition rates of first-generation college students, the causative factors of this high attrition rate, and how Bridge Programs aim to assist these students, and where shortcomings exist in current Bridge Program assessments. The article focuses specifically on the inadequate high school academic preparation readiness experience, inadequate knowledge of the college environment in the early years in college, effect of family and socioeconomic factors that synergistically interact to lead to reduced persistence to attainment of degrees.

Studies has examined differences in upbringings, and subsequent academic outcomes of first- and second-generation college students. At the high-school level, most first-generation college students have significantly lower SAT scores and grade point averages than do students whose parents have a bachelor's degree (Sackett, et al, 2012; Wiggins, 2012; Conley, 2001). In addition, first-generation students have lower levels of information about applying to colleges and obtaining financial aid than do students whose parents have a bachelor's degree (Somers, Woodhouse, & Cofer, 2004). However, many first- and second-generation college students show strong comparison in high school class rank when compared to their third- and fourth-generation counterparts (Desimone and Long, 2010; Bragg & Taylor, 2014). This suggests that first-generation college students are more likely to attend high schools where students have low grade point averages, while students whose parents attended college are more likely to attend high schools where students have high grade point averages (Ingersoll, 1999; Cerezo & McWhiter, 2012). This reflects an existing resource discrepancy between students of different socioeconomic backgrounds. Many students from privileged socioeconomic backgrounds attend schools with access to up-to-date academic counseling and rigorous college preparatory coursework (US Department of Education, 2018). On the other hand, many students from disadvantaged socioeconomic backgrounds attend schools that lack these resources (Olszewski-Kubilius & Laubscher, 1996; Riehl, 1994). Furthermore, first-generation college students are more likely to rely on high school guidance counselors for assistance when choosing an institution to attend, which makes the resource discrepancy all the more detrimental (Saenz & Barrera, 2007). When guidance counselors are less prepared to provide adequate college counseling for students who have nowhere else to turn, these students ultimately lack crucial information for college readiness.

Many first-generation college students report lower levels of self-confidence on their academic preparation for college than do students whose parents attended college (Saenz & Barrera, 2007, Ready, 2010)). First-generation college students also report lower expectations for their college grade point average, and lower expectations in the highest degree they wish to attain (Ishitani, 2006; Saenz & Barrera, 2007; Duncan et al, 1997; Conger, Conger & Marin, 2010; Pike, 2014). These beliefs are often consistent with the observed lower academic performance. When compared to their second- and third-generation counterparts, first-generation college students consistently obtain lower grade point averages during their first semester of college, and demonstrate higher dropout rates by the end of their freshman year (Riehl, 1994; Douglas & Attewell, 2014).

When compared to other student groups, research has consistently found that first-generation college students are the most likely to drop out of higher education, and the least likely to attain their degree in a timely manner (Ishitani 2006, National Center of Education Statistics, 2008).

First-generation college students often come from families experiencing greater levels of economic hardship than their second- and third-generation counterparts. Lower family income directly impacts a student's college experience on both an academic and a social level (Willingham, 2012; Terenzini, Randon, Upcraft, Miller, Allison, Gregg & Jalomo, 1994). To afford the costs of attending college, first-generation college students are significantly more likely to attend higher educational institutions within commuting distance to their homes, significantly less likely to live on-campus during their freshman year, significantly less likely to become involved in extracurricular activities, and significantly more likely to work part-time or full-time while attending college (Ackermann, 1991; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Rita & Bacote, 1997). Because of their workload and others financial stressors, first-generation college students are also less likely to enroll full-time in a four-year institution (Pascarella et al., 2004) and perform significantly lower (Conger, Ge, Elder, & Lorenz, 1994). Furthermore, first-generation college students are often the least informed about ways to obtain financial aid and student loans. They are also more likely to come from families who are resistant to incurring temporary levels of debt (Somers et al., 2004). Because insufficient financial aid is linked to higher levels of attrition, the combination of low financial resources and low awareness on ways to attain financial support can prevent these students from pursuing a college degree (Pascarella et al., 2004).

Success at an institution of higher education is dependent on a combination of sufficient academic attainment, sufficient institutional programs and peer support. However, students who are working and living off-campus have less time to become involved in the academic and social atmosphere of their college campus. This can be damaging, as student involvement and a student's ability to create and foster social bonds with peers are two of the six key factors linked to academic retention on non-commuter campuses (Braxton et al., 2005). Peer involvement in college is also associated with higher levels of intellectual and personal development than academic study alone, and students with worthwhile social connections in college are more likely to engage in educationally purposeful activities, such as willingly participating in class and seeking help when needed (Kuh, Kinzie, Buckley, Bridges, & Hayeck, 2006; Pascarella et al., 2004). Even more noteworthy, first-generation college students report a greater commitment to graduate from college once they connect with something or someone whom they deem worthwhile. Affinity group membership, meaningful relationships with faculty members, and roles of responsibility within student organizations are examples of the types of activities that connect a first-generation student to their institution (Kuh et al., 2006). In spite of this, research suggests that first-generation college students hesitate to seek extracurricular involvement until they are first confident of competing academically (Terenzini, Rendon, et al, 1994). Because many first-generation college students enter the university system with lower confidence to begin with, it becomes a critical challenge to engage these students in extracurricular activities.

Research on Academic and Social Support Programs

Governmental education departments and college administrators have consistently recognized the need to improve student retention and graduation rates across for its social and economic societal implications of providing well-trained labor force. Most studies on first-generation college students conclude with ideas for developing curricula addressing the unique challenges first-generation college students face. These ideas range from mentorship programs, to comprehensive orientation curriculums, academic advising resources, opportunities for student social integration and leadership (Naumann, Bandalos, & Gutkin, 2003; Pascarella et al., 2004; Saenz & Barrera, 2007; Woolsley, Sherry, & Shepler, 2011; Moore, Moore, Grimes, Milea, Lehman, Pearson, Liddel & Thomas, 2007). However, while these published findings provide theoretical ideas on meeting the needs of first-generation and at-risk college students, relatively few studies have evaluated the efficacy and outcomes of these programs. In particular, few studies have used well-designed methodologies, outcomes and substantiated with empirical data whether currently implemented programs truly retain a greater number of first-generation students. This due to the inherent group design standards to show equivalence of the analytic intervention and comparison groups is often not possible. However, anecdotal and observations by colleges and Summer Bridge administrators, social and educational policies interventional programs invest resources in the development and maintenance of these programs.

The following section reviews the common tenets to almost all Summer Bridge Programs, some high-level program content, group and interventional designs and analysis, program effectiveness and outcomes in specific domains (including persistence, retention, academic grades, positive impact on sense of belonging to the college environment, and degree attainment if provided).

Summer Bridge Programs

Summer Bridge programs are designed to bridge or ease the transition to college and support post-secondary success by providing students with the academic skills and social resources needed to succeed in a college environment. These on-campus program that typically run 2-8 weeks are mostly designed targeted for first-generation, underrepresented or at-risk students likely to drop out. Many Bridge Program provides the opportunity for selected students who have struggled academically to demonstrate they are prepared for college and committed to their own success. The program provides a unique opportunity for students to succeed through refining their academic skills, gaining a better understanding of the rigors of college life through academic coursework. Students who are required to attend the Bridge Program in many cases must successfully complete it for admission to into the college. Although the programmatic development, curriculum and content of Summer Bridge programs vary across institutions and by the population served, they typically involve an in-depth orientation to college life and resources, academic advising, training in the necessary skills for college success (e.g., time management and study skills), accelerated academic coursework and exposure to university resources for example the library, activity center, and student health center) and encouraging family member involvement in students' academic support networks., opportunities for students to form meaningful and positive social and peer connections and support, and promote a sense of belonging and a stake in themselves and the college community.

Four representative studies provided below were carefully selected for the extensiveness and duration of the summer bridge data collected and analyzed, the diversity of the students characteristics (demographics, parental socioeconomic status, high school academic preparedness, academic self-concept, self-evaluations) and measured factors.

Research on Bridge Programs

Murphy et al. (2010) used a quasi-experimental design to examine the effects of a 5-week summer bridge program on students' postsecondary graduation rates. The sample included 2,222 students enrolled at a selective technical university in the southeastern United States. The intervention group included 770 freshmen who elected to participate in a summer bridge program in the summer before their first semester of enrollment. The summer bridge program involved an academic component that provided short non-credit-bearing courses in calculus, chemistry, computer science, and English composition. Upper-class students served as peer educators and coaches during the program and provided supplementary mentoring as needed. Participants in the program, were compared to a group of 1,452 students who elected not to participate in the summer bridge program. Baseline equivalence of the intervention and comparison groups was established for the student characteristics students' high-school grade point average, median household income. Follow-up data were collected on the 2,222 students for a minimum of 5 years after initial enrollment. Review of summer bridge programs for the supporting postsecondary success topic area focused on student outcomes in postsecondary domains: degree attainment (college), college access and enrollment, credit accumulation, and general academic achievement. The findings show graduation or degree attainment rates were significantly higher for students in the intervention group, compared to those in the comparison group (70% vs 67%). The Summer Bridge program intervention is a positive effect on this long-term study. Although this randomized study design demonstrated a positive impact on graduation rate attributable to the interventional Summer Bridge program, a drawback of the study is the group design standards and equivalence of the analytic intervention and comparison groups indicators that contributed to the higher graduation rate was not done. Additionally, this report omitted the impact of programmatic participation to their adjustment to college life, interaction with their peers and engage in classroom, all which are considered critical factors in help students develop skills and support networks that create academic resilience.

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Cabrera, Miner & Milem (2013) systematically examined the impact of its six-week summer bridge program over a 17-year period. The program is designed for racial minority from underserved background, low-income, first-generation college students, all entering first-time, full-time freshmen adjust to their first year of college.

The program is a comprehensive, with a primary objective to orient participants to undergraduate life while helping them develop skills to successfully navigate the collegiate environment. The program provided experiences including opportunities to enroll in academic courses, live in residence halls, engage in social activities, and learn about the various academic and social support services provided on the college campus. The 17-year data from students who completed the summer program as well as those who were eligible for the program but did not participate used for this analysis was derived from university office of institutional planning and support and complemented by a longitudinal survey developed by the research team.

There were mixed results of the impact on outcomes in the student's participation in the summer bridge program. Participation was a significant, positive predictor and correlated positively to both first-year retention - even after controlling for entering student characteristics, a positive effect of program participation on student academic performance, persistence and resiliency – but these results were inconsistent year-to-year, that participation is effective in providing students opportunities and participation increases use of academic and social support services. It is therefore concluded that participation increased the levels of academic engagement and self-concept, which fosters greater academic resiliency via increased opportunity and self-efficacy.

Rutgers University, New Brunswick, New Jersey, USA. Clauss-Ehlers and Wibrowski (2007) measured the outcomes of students' participants in a Rutgers University Summer Bridge program. This study 95 participating students, as with many other Summer Bridge programs, the Rutgers University Summer Bridge program featured accelerated college coursework in English, math, and science, courses on leadership training and academic success, recreational options on weekends, and an award ceremony upon completion of the program. However, this program differed from many traditional Summer Bridge programs in that students who participated were conditionally accepted into the four-year university, and were not admitted if they did not pass the Summer Bridge coursework.

Rather than use four-year retention rates or overall college GPA to examine the program's success, Clauss-Ehlers and Wibrowski (2007) used a pre-test, post-test design to measure the self-reported changes in resilience, social support, and ethnic identity among the participating first-generation college students. The results were mixed, suggesting that students did not experience statistically significant changes in ethnic identity affirmation, resilience levels, or perceived familial support. However, they experienced increases in peer support, and were able to "cultivate valued experiences" with supervisors during the duration of the Summer Bridge program (Clauss-Ehlers & Wibrowski, 2007, p. 582). Researchers also acknowledged that most of these students showed high levels of resilience to begin with, undermining the opportunity for statistically observable increases. However, because the study did not include data on retention rates or GPA, one cannot assume that social support and resilience were sufficient on their own to keep these students enrolled in a university setting. This study relied purely on subjective, short-term data, and this data may not be representative of long-term outcomes.

Idaho State University, Pocatello, Idaho, USA

Frischmann & Moor (2017) reported on a seven-week summer program designed to help students successfully transition from high school bridge program. The population studied 4 cohorts, with an acceptance criterion to include factors besides low-income and first-generation that inhibit students persisting in college: low test scores, low GPA, disability, underrepresented minority, English as a second language, lack of familial support or education, inadequate resources to attend college, and lack academic preparedness. that influence the retention and persistence to degree completion. This study reported on the qualitative (race, gender, low-income indicator and first-generation Indicator) and quantitative variables (standardized exams scores, high school GPAs, bridge programs GPA, bridge cumulative GPA, post bridge fall and spring GPA). The results showed the interventional program impacted on increased retention levels, post intervention GPAs similar to the non-participants with general higher scores in standardized exams. Analysis showing significant increases in the quantitative variable were independent of the qualitative variables suggesting a positive impact of the interventional summer bridge program.

Discussion

Taken together, there is a large body evidence that summer bridge interventional program demonstrates a great deal of promise in helping to promote a successful transition for first generation, low income, and racial minority students UA. showing These studies are useful prototype for future research, as it measures objective student outcomes, compares this data to a control group of students from a similar background.

Unfortunately, there are several common, methodological flaws with the current research on Summer Bridge programs. First, much of the research on these programs measure student outcomes through the end of their freshman year, but do not continue to measure attrition rates during the following years. Past studies suggest that first-generation college students are most likely to withdraw from college during their second year of enrollment (Ishitani, 2006). As a result, many Bridge Program studies lack critical data on true college completion outcomes.

Second, much of the research on Summer Bridge programs do not contain control groups for comparison. A lack of control groups makes it impossible to determine whether a student's academic performance is truly impacted by the Summer Bridge programs. These same outcomes may have occurred without the intervention of a Summer Bridge program.

Third, a generally unaddressed issue within these programmatic assessments is the issue of selection effects. Assessments of social impact also tend to rely on self-reporting via surveys such as students feeling that programmatic participation positively impacted their adjustment to college life or feeling "adequately prepared" to interact with their peers and engage in classroom discussions (Ackermann 1991).

Lastly, many studies measure academic outcomes of Summer Bridge programs on a qualitative, rather than a quantitative basis. For instance, many studies measure self-report data on participants' perceived levels of academic preparation after completing a Bridge Program, but neglect to measure the participants' grade point averages at later dates. While qualitative data is useful when measuring the degree to which students consider a program to be helpful, studies that lack hard data on grade point averages and attrition rates cannot assess whether the program has truly impacted a student's academic performance. These limitations may be interpreted that there is little empirical foundation for the current research in terms of selecting constructs related to success stemming from summer bridge program participation.

Overall, there is still a great need for research focused on longitudinal, quantitative assessments on Summer Bridge programs. Examples of quantitative measures include graduation rates, attrition rates, and grade point averages of participating students. More research is needed to examine Summer Bridge student outcomes versus outcomes of a control group. Additionally, more research is needed to examine whether an ethnic match is a valid factor when working with low-income, first-generation college students from an ethnic minority background.

Future assessments on Summer Bridge programs should examine quantitative student data on a longitudinal scale. Future studies should focus on grade point averages, attrition rates, and four-year graduation rates of Summer Bridge participants. Summer Bridge participants should be matched to a control group for comparison. Studies should be conducted in a pre-test, post-test fashion, to examine whether a true difference occurred in students over time. In addition, future assessments should examine ethnic matching on a qualitative and a quantitative scale. Research is needed to assess whether ethnic match has a positive correlation with qualitative student perceptions of bridge programs, and quantitative grade point averages, attrition rates, and graduation outcomes.

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