Peer Mentoring: A Tool for Serving the Diverse Needs of 21st Century College Students

CONTENTS

Peer mentoring: A tool for serving the diverse needs of 21st century college students

Peter Collier, PhD
Portland State University

Higher education is changing even as it stays the same. What has stayed the same is the immense value of a completed college degree on both societal and personal levels. For society, increasing the percentage of the population with advanced educational credentials is associated with increased work skills, a stable economy, stable national, state, and local tax revenue streams, decreased needs for a range of social services, increased citizen participation, and perhaps most importantly, an informed citizenry capable understanding and synthesizing complex information and critically thinking about important social issues. One a personal level, increasing the percentage of individuals with completed college degrees should be associated with higher standards of living, better health, and higher levels of feelings of self-efficacy and self-worth for a greater number/ percentage of Americans.

Yet several aspects of the context of higher education are changing rapidly. Unfortunately there are characteristics of 21st century higher education that actually make it harder for students to realize their educational goals and for colleges and universities to facilitate students' efforts, including:

1. The college student population has become increasingly diverse over the past 25 years. As college degrees become more and more essential for obtaining desirable career/occupational paths, the percentage of high school graduates seeking these credentials also increases. Non-traditional student groups increasing their share of the total college population in this period include:

   - student veterans, (U.S. Department of Veterans Affairs, 2013)
   - first generation students, (i.e. those whose parents did not complete US college degrees) (Collier, 2015)
   - immigrants and the children of immigrants, (Baum & Flores, 2011)
   - students with disabilities, (Lee, 2009) and
   - students from minority racial-ethnic groups. (Fry, 2011)

   Issues associated with serving an increasingly diverse student body are particularly critical for urban/metropolitan colleges and universities due to both their missions and local populations.

2. There has been a continuing trend of decreased state-level funding of higher education. A 2016 Center on Budget and Policy Priorities report, "Funding Down, Tuition Up," noted that, even after adjusting for inflation, funding for public two and four-year colleges is nearly $10 billion below what it was just prior to the 2008 recession (Mitchell, Leachmen & Masterson, 2016). These changes in state-level funding have resulted in a combination of cuts in academic offerings and the number of professional student support workers

(e.g. advisers and counselors), along with increases in tuition. Non-traditional students are disproportionately impacted by cuts in the number of available counselors and advisers due to their unfamiliarity with the culture of higher education.

As state-level support decreased, colleges and universities were forced to rely on tuition for a larger and larger percentage of their operating budgets. In 1988, public colleges and universities received 3.2 times as much revenue from state and local governments as they did from students; in 2016 they only received 1.2 times as much support (Mitchell, et al. 2016). Unfortunately, wages did not increase at the same rate as tuition. Between the 2007-9 and 2014-15 school years, tuition jumped nearly 30 percent while, in the same period real median income fell roughly 6.5 percent (Mitchell, et al. 2016). The sharp tuition increases of the past ten years have only exacerbated a longer-term trend of a shifting a greater percentage of college costs to students and their families. There is also an equity issue that needs to be addressed as the increasing prices of tuition have disproportionately negative effects on access and degree-completion rates for low-income students and students of color (Allen & Wolniak, 2015).

3. There are costs to schools when students do not finish their degree programs. Alumni are much more likely than degree non-completers to donate to their respective institution/Alma Mater once they are established in the work world. This means that students who leave school without completing their degrees represent a present loss of tuition and a future loss of donation-based revenue, chiefly in two ways:

- Students who do not complete their degrees cost colleges money by keeping them from recouping all their initial investments in orientation and support services. A sizable amount of colleges' student processing and support costs are actually accrued during the first year. However, all the cost is not recovered until later in a student's undergraduate career (Collier, 2014).
- While the potential revenue loss associated with any student dropping out is fiscally important for colleges and universities, the loss of students from specific subgroups is particularly critical from a revenue perspective. For example, student veterans are a fiscally important subgroup. They make up an increasing percentage of the U.S. college student population and bring with them federal educational benefits under the Post-9/11 GI Bill. Colleges and universities have a vested financial interest in promoting veterans' college success as Congress is paying increased attention to the degree completion rates student veterans'.

So colleges and universities are faced with a conundrum that is difficult to address, at least initially: how to support students—who share some common issues but also bring with them group-specific issues—and help them succeed academically and feel connected socially to their school, while lacking sufficient external resources to support all students through staff/faculty-based programs.

Peer mentoring is a resource that college and university administrators and student affairs professionals can use to help address this issue. All of the articles in this issue share the

perspective that peer-mentoring works best as a compliment to university-based student support services.

The first article in this issue, my own contribution *Why peer mentoring is an effective approach for promoting college student success*, is an effort to provide some context for the remaining articles in this issue. This article examines three characteristics of a peer mentoring approach that contribute to promoting student success. The first two characteristics, cost and availability of a larger number of potential mentors, relate to the efficient allocation of resources. The third characteristic, the development between mentor and mentee of a common perspective on the college student role, subsequently affects perceived mentor credibility and the likelihood that mentees will actually follow their mentors' advice.

There are two related themes that connect the rest of the articles in this special issue. The first theme is that peer mentoring is a valuable approach that colleges and universities can use to help support the increasingly diverse 21st Century student population. The second theme is that when colleges and universities implement peer-mentoring programs they must be prepared to address new coordination and infrastructure-related issues.

Perhaps the single defining characteristic of the current college-level student population is how many students from previously under-represented groups are now attending universities in their efforts to complete degrees. By tailoring their support efforts to the specific needs of distinct groups of students, peer-mentoring programs facilitate student academic and social success, and increase the likelihood of students' connecting with the larger university communities.

Many of the articles in this special issue were selected as examples of best practices regarding targeted support for specific, previously under-served subgroups of college students (e.g. student veterans, students with disabilities, first generation, low-income, and immigrant students).

Catherine Lewis (University of Rochester), in her article *Creating Inclusive Campus Communities: The Vital Role of Peer Mentorship in Inclusive Higher Education*, details the "Transition Opportunities at University of Rochester" (TOUR) program that supports students with intellectual and developmental disabilities. She explains how the TOUR program focuses on helping these students thrive academically and socially during their college educations. An interesting aspect of this paper is a discussion of the reciprocal benefits of using peer mentoring to support inclusive higher education.

Student veterans are another group whose proportional representation is increasing on college and university campuses. Michelle Kees, Brittany Rsik, Chrysta Meadowbrooke, Timothy Nellen and Jane Spinner (University of Michigan), in their article *Peer Advisors for Veteran Education (PAVE): Implementing a Sustainable Peer Support Program for Student Veterans on College Campuses*, describe the iterative development of a nationwide peer support program for student veterans, Peer Advisors for Education (PAVE). PAVE uses trained peers to provide outreach, support, and linkage to resources to assist student veterans.

Mathew Kring (Metropolitan State University of Denver) details how peer mentoring is used to support immigrant students in his article, *Supporting College Students through Peer Mentoring:*

Serving Immigrant Students. The Immigrant Services Program at Metropolitan State University of Denver provides support to a specific population of students at Metropolitan State University of Denver that includes immigrants, refugees, undocumented and Deferred Action Childhood Arrival (DACA) students, and English Language Learners (ELL).

Two of the articles in this issue describe programs that target first generation, low-income, racial-ethnic minority group students:

Jennifer L. Smith (University of Texas-Austin), in her article *Innovating for student success: The University Leadership Network and tiered undergraduate peer mentor model*,explains how peer mentoring is utilized in the University of Texas's large-scale University Leadership Network program. This article also examines the tiered undergraduate peer mentor model, utilized to support the success of first-year students from low-socioeconomic backgrounds, including a majority of underrepresented minority students.

Thomas E. Keller, Kay Logan, Jennifer Lindwall and Caitlyn Beals (Portland State University), in their article *Peer mentoring for undergraduates in a research-focused diversity initiative*, describe the Building University Infrastructure Leading to Diversity (BUILD) EXITO program. The BUILD EXITO project is part of an NIH-sponsored diversity initiative, intended to promote innovative approaches to research training for undergraduates from backgrounds traditionally underrepresented in the biomedical and behavioral sciences. Using a "convoy" model of mentoring, this program matches student scholars with three mentors: (a) a peer mentor (i.e. advanced student); (b) a career mentor (i.e. faculty adviser); and (c) a research mentor (i.e. research project supervisor) in a coordinated effort to support students from their beginnings at community colleges through transfer to a four year university and associated research laboratory experiences in preparation for graduate-level biomedical training.

The second theme of this journal issue is what are some best practices for coordinating multiple peer mentoring programs, both on the same campus and across multiple schools? Selected articles share best practices and insights into the organization and coordination of multiple peer mentoring programs, serving different constituencies but still sharing some common organizational needs.

Allison McWilliams (Wake Forest University), in her article *Wake Forest University: Building a Campus-Wide Mentoring Culture*, describes how the Wake Forest's Mentoring Resource Center (MRC) uses a decentralized, consulting model to support a variety of peer mentoring programs. These serve diverse groups from first generation students to student leaders and honor society members. MRC facilitates mentor and mentee skill development by providing peer-mentoring programs with trainings, resource toolkits and evaluation tools.

Coordination of multiple programs is discussed in several other articles. Matthew Kring describes how the Student Academic Success Center at Metropolitan University of Denver coordinates multiple programs including Immigrant Services. Other MU-D programs that use peer mentors to provide direct services to students include Brother to Brother that supports male students of color, Fostering Success that serves emancipated foster youth, and Transfer Services.

Keller, Logan, Lindwall and Beals introduce the Build EXITO program, and describe how peer mentoring contributes to coordinated activities between community colleges, four-year universities and research settings. Here, peer mentoring provides undergraduate research experiences to STEM majors which are designed to increase students' likelihood of graduate school acceptance and success. Finally, Kees, Risk, Meadowebrooke, Nellet, and Spinner offer an article on PAVE veteran-support program with a unique perspective on the coordination and infrastructure challenges this program experienced. Itprogressed from a relatively local program (i.e. 3 Michigan universities) to a national program represented on 48 campuses in only a three-year time period.

I want to sincerely thank all of the authors of the articles in this special issue for the time and effort they put into crafting the manuscripts for this special issue. I also would like to thank all of the other peer mentoring advocates, i.e. faculty members, student affairs professionals, alumni, and student mentors, who are doing the not-so-glamorous, day-to-day work of developing and maintaining college and university student support programs. Keep up your good work.

I'd like to acknowledge Dr. Nora Dominquez, Director of the Mentoring Institute at the University of New Mexico (UNM) and the guiding force behind the Annual Mentoring Conference at UNM for the past ten years. It was at that mentoring conference that I initially met several of the authors of articles in this issue as they shared their work, and the UNM conference remains one of the premier venues for networking with peer mentoring practitioners. Finally, the development of this special issue spanned the *Metropolitan Universities* editorships of both Dr. Barbara Holland and Dr. Valerie Holton. I want to express my sincere appreciation for all the encouragement and support I received in developing this project.

Peter J. Collier, PhD
Portland, Oregon
May 2017

References

Allen, Drew & Wolniak, Gregory C. (2015). *Exploring the Effects of Tuition Increases on Racial/Ethnic Diversity at Public Colleges and Universities*. Chicago, IL: AERA Annual Meeting, p. 30. Retrieved from http://www.aera.net/Portals/38/Newsroom%20-%20Recent%20Research/Exploring%20the%20Effects%20of%20Tuition%20Increases%20on%20Racial-Ethnic%20Diversity%20at.pdf.

Baum, S. & Flores, S.M. (2011) Higher education and children in immigrant families. *The Future of Children*, 21(1), 171–193. doi.org/10.1353/foc.2011.0000

Collier, P. J. (2015). *Developing effective student peer mentoring programs: A practitioner's guide to program design, delivery, evaluation, and training*. Sterling, VA: Stylus Publishing.

Fry, R. (2011, August 25). Hispanic college enrollment spikes, narrowing gaps with other groups: 24% growth from 2009 to 2010. Washington, DC: Pew Research Center, 1-29. Retrieved from http://www.pewhispanic.org/2011/08/25/hispanic-college-enrollment-spikes-narrowing-gaps-with-other-groups/

Lee, Stephanie (2009). Overview of the Federal Higher Education Opportunity Act. Boston, MA: University of Massachusetts Boston, Institute for Community Inclusion. Retrieved from http://www.thinkcollege.net/component/resdb/item/t-110/607

Mitchell, Michael, Leachman, Michael and Kathleen Masterson, (2016) *Funding Down, Tuition Up: State Cuts to Higher Education Threaten Quality and Affordability at Public Colleges*. Washington, DC; Center on Budget and Policy Priorities. Retrieved from http://www.cbpp.org/research/state-budget-and-tax/funding-down-tuition-up#_ftn33

U.S. Department of Veterans Affairs. (2013, November). One million now benefit from Post-9/11 GI Bill [press release]. Washington, DC: Office of Public and Intergovernmental Affairs, U.S. Department of Veterans Affairs. Retrieved from http://www.va.gov/opa/pressrel/pressrelease.cfm?id=2490

Why peer mentoring is an effective approach for promoting college student success

Peter J. Collier, PhD

Abstract

Both hierarchical (e.g. student-faculty member or student-adviser) and peer (e.g. student-student) mentoring are recognized as best-practice strategies for promoting college student success. Formal mentoring programs utilizing both approaches can be found on many campuses. In the current institutional context of scarce or stagnant resources, college and university presidents and administrators face the challenge of determining which mix of programs to support even though little comparative research on the effectiveness of these approaches exists. This article examines three characteristics of a peer mentoring approach that encourage its greater use. The first two characteristics, cost and the availability of a larger number of potential mentors, relate to concerns about the efficient use of resources. The third characteristic, development of a common perspective, relates to questions concerning the relative effectiveness of different mentoring approaches. Peer mentors and mentees are more likely than participants in hierarchical mentoring relationships to share a common perspective with regards to how they understand and enact the college student role. Differences in perspective impact the process of student identity acquisition, perceived mentor credibility, and the likelihood of mentees following their mentors' advice. Higher education researchers are urged to conduct studies exploring the relative effectiveness of both approaches and how to best combine approaches in complimentary ways to help administrators make informed decisions.

Keywords

Perspective, retention, modeling, credibility, identity

Introduction

Within higher education mentoring is increasingly seen as a high impact strategy for promoting student success. While the nature of college student mentoring relationships may vary depending upon who provides mentoring support and institutional context, the fundamental goal is to help students stay in school and complete their degrees in a timely manner.

What is mentoring?

According to the National Academy of Sciences: "Mentoring occurs when a senior person or mentor provides information, advice, and emotional support to a junior person or student over a period of time" (as cited in Lev, Kolassa, & Bakken, 2010). The mentor is typically older and definitely more experienced in the institutional/ organizational context, and draws upon her experience to guide and support the mentee's efforts to advance within that same context. Within

higher education, several different forms of mentoring are used to facilitate student success. Mentors can be more experienced peers, faculty members, support staff, and/or alumni.

Kram (1983, p. 617-8) developed a dual function modeling of mentoring that distinguishes between career functions (e.g. coaching, sponsorship, exposure-and-visibility) and psychosocial functions (e.g. role modeling, counseling, acceptance-and-confirmation). While Kram's initial work focused on mentoring within business contexts, there is support for the dual function model within the higher education literature on mentoring (Crisp & Cruz, 2009; Schunk & Usher, 2013). For college students, career development can be thought of as academic support and includes mentors promoting academic success and facilitating mentees' efforts to complete their degrees. Role modeling is an important aspect of psychosocial support (Brown, Davis, & McClendon, 1999; Davidson & Foster-Johnson 2001). Mentors help less experienced students better understand the college student role (Palmer, Hunt, Neal & Wuetherick, 2015) and how to use that knowledge to achieve important goals such as completing their degrees (Collier, 2015, p. 37-8).

Hierarchical and peer mentoring

Hierarchical mentoring for college students involves individuals from two different social positions, such as faculty member–student, adviser–student, or counselor–student. This is similar to a mentoring relationship in a business context where a senior manager mentors a junior staff person. Although Kram's (1983) original work in mentoring research focused on hierarchical mentoring, her later research identified how mentoring functions are slightly modified in peer relationships (Kram & Isabella, 1985).

Peer mentoring describes a relationship where a more experienced student helps a less experienced student improve overall academic performance and provides advice, support, and knowledge to the mentee (Colvin & Ashman 2010). Unlike hierarchical mentoring, peer mentoring matches mentors and mentees who are roughly equal in age and power for task and psychosocial support (Angelique, Kyle, & Taylor, 2002; Terrion & Leonard, 2007). Although a peer mentor may or may not be older than the mentee, there is a considerable difference in each one's level of college experience.

Benefits of mentoring undergraduate students

Both hierarchical and peer mentoring have been shown to positively impact traditional indicators of college student success such as average GPA, credits earned, and retention (Campbell & Campbell, 2007, pp. 137, 143; Colvin & Ashman, 2010, p. 128). In addition, researchers have established that both approaches facilitate new students' adjustment to campus (Pascarella & Terenzini, 2005; Ruthkosky & Castano, 2007) and increase students' satisfaction with their universities (Tenenbaum, Crosby, & Gliner, 2001, p. 326; Ferrari, 2004, p. 303). Despite the evidence of the positive impact of mentoring, there has been little research done comparing the relative effectiveness of hierarchical and peer mentoring.

For a new-to-college undergraduate student experiencing the confusing adjustment to college, the outcomes derived from a mentoring relationship are more important than the mentor's social

position. On the most basic level, the mentee is a pragmatist. She is grateful if mentoring can help her succeed and make sense out of the new and complicated university reality. The student does not care if the mentoring support comes from a student professional, a faculty member, or a student peer.

However colleges and universities cannot afford to be quite so pragmatic. Many schools incorporate multiple forms of mentoring as part of a coordinated effort to better support students. While they know that mentoring is effective for promoting college student success, they also need to be concerned with issues of efficiency, e.g. how easy or difficult will it be to set up specific programs and what levels of resources will be required? The next section examines several characteristics of peer mentoring relationships that make this approach attractive for colleges and universities trying to support students and promote retention and graduation.

Advantages of a peer mentoring approach

There are three relevant advantages of utilizing a peer mentoring approach: cost, availability of a relatively larger number of potential mentors, and increased likelihood of mentees following mentors' advice due to sharing a common perspective.

Cost

There are certain core aspects of developing and implementing a program that must be budgeted for, regardless of which mentoring approach is used. These include:
- *staffing:* salaries of workers who will coordinate and supervise the program,
- *program space:* costs associated with physical space including furniture and computers*,*
- *Information Technology (IT):* development and maintenance costs associated with on-line delivery of mentoring (e.g. on-line resource libraries, discussion groups), the creation of program website or Facebook page.
- *mentee recruitment:* cost of outreach to potential mentees (e.g. postage, printing informational materials and applications), costs associated with initial meetings and mentee orientation, printing costs associated with mentee program materials.
- *recruitment and training of mentors:* cost of outreach to potential mentors ,costs of delivering mentor training including the preparation and printing/copying of relevant materials, food and beverages (typically lunch plus morning and afternoon beverages), printing costs associated with mentor handbooks.
- *general program administration*: costs associated with telephones, copying, office supplies, printer including print supplies, program completion certificates, developing program database.
- *mentee program activities:* costs associated with attending on-campus sports and cultural events, catering costs for any social events that bring together program mentors and mentees.
- *evaluation:* costs associated with data collection (e.g. printing forms), storage of evaluation data, and analysis. On-line mentoring programs will need to budget additional IT resources for evaluation. (Collier, 2015, pp. 102-3)

Peer mentoring programs typically are less expensive then than hierarchical mentoring programs that use faculty or staff mentors for the same purpose (Cerna, Platania, & Fong, 2012). In the current institutional context of increased benefit costs for full-time employees, peer mentors represent a cost-effective way colleges and universities to meet educational goals and address retention issues (Minor, 2007 primarily due to differences in mentor compensation costs. Schools can generate savings by compensating peer mentors with a variety of resources (e.g. stipends, credits, textbook scholarships) that mentors value but that still are much less costly than full-time employee salaries and benefits. Minor (2007, p. 65) suggests that colleges looking to develop cost-effective peer mentoring compensation strategies should consult with mentors about which resources are more valuable to them in addition to working with Offices of Academic Affairs to creatively use existing resources like course credits.

Availability of potential mentors

A second relative advantage of employing a peer mentoring approach has to do with the availability of a larger number of potential mentors. On any college or university campus, there are relatively greater numbers of experienced students potentially available to serve as peer mentors than available faculty members and staff. This has nothing to do with differences in their respective levels of commitment to helping students succeed at college. Instead, faculty and staff members must address multiple job demands that in many cases limit their availability to participate in formal mentoring programs.

However just because large numbers of experienced students/potential mentors are present on college campuses does not guarantee these students will chose to participate in peer mentoring programs. Motivation is an important consideration. Many peer mentors report they initially got involved in peer mentoring programs out of a desire to give back to other students and return the support they received when they were trying to make the adjustment to college (Bunting, Dye, Pinnegar & Robinson, 2012).

Effectiveness

The third relative advantage of employing a peer mentoring approach has to do with the development of a common perspective with regards to understanding and enacting the college student role. Peer mentors and mentees are more likely to share the same perspective with regards to how they understand and enact the college student role than participants in hierarchical mentoring relationships. Differences in perspective impact the process of student identity acquisition, perceived mentor credibility, and the likelihood of mentees following their mentors' advice. "Perspective" is defined by *Collin's English Dictionary* as, "a specific point of view in understanding or judging things or events especially one that shows them in their true relations to one another" (2015). The shared student-peer mentor perspective on how to appropriately enact the college student role is based in the difference in how role identities develop in peer and hierarchical mentoring relationships.

Development of a college student identity. Success in higher education is not simply a matter of students demonstrating their academic abilities. Students transitioning to the university from high school, community colleges, or even other different educational systems, must all learn a new

role or a new version of the role, college student. Individuals develop an associated identity when they internalize an understanding of role and use it to direct thinking, acting and interacting with others (Stryker, 1968; Burke, 1991). For college students this involves efforts to understand instructors' expectations and effectively apply their own academic skills to those expectations (Collier & Morgan, 2008). Both hierarchical and peer mentors promote college success by helping new students learn the college student role.

One way roles are learned is through interactions with others in complementary roles. For students this typically means interacting with faculty members or advisers in hierarchical mentoring relationships. In these interactions, students gets information from faculty members or advisers about how they think the student role should be enacted. Students then try to live up to those expectations.

The other way roles are learned is through role modeling. In a peer mentoring relationship, new students first watch more experienced student mentors use role-related knowledge in the form of problem solving scripts to deal with a range of college adjustment issues. Mentees are then provided with opportunities to practice enacting the role themselves while receiving feedback from mentors to further refine their performances.

Hierarchical mentoring of undergraduate students does not involve role modeling. A faculty mentor is not modeling the college student role when sharing ideas with an undergraduate student mentee on how the student should study for an exam to earn a good grade. Instead, what is happening is that the mentor is sharing knowledge of faculty members' expectations of undergraduate students. The faculty mentor is not a student, yet the mentor is sharing an understanding of the standard that faculty use to judge the quality of their interactions with undergraduate students. Clearly this is very useful information and serves as evidence of the mentor's relatively higher level of expertise. Mentees who can turn this information about expectations concerning their behavior in one class into effective interactions with other faculty members have a better chance of college success (Collier & Morgan, 2008).

With peer mentoring, the situation is different. Compared to the complementary faculty and undergraduate student roles of a hierarchical mentoring relationship, with peer mentoring only one role is involved. The mentor and mentee both share a common identity and a common perspective on how to best enact the college student role.

Beyond shaping understandings of things and events, perspective impacts the meanings a person assigns to the actions and motivations of both one's self and others. Differences in perspective affect how mentees interpret mentors' motivation.

Credibility. Differences in student identity acquisition in mentoring relationships, specifically whether role modeling does or does not occur, may have an impact on mentees' interpretation of mentors' actions. How mentees interpret mentors' motivation for their action has an effect on perceived mentor credibility.

The social-psychological concept of credibility is a useful frame for understanding why peer mentoring may be relatively more effective than hierarchical mentoring for supporting college

students. The person who sends a message is called the message source. Mentors are message sources. A message source's credibility is a critical element in the process of persuasion (Pornpitakan, 2004). Credibility is made up of two components, expertise and trustworthiness. Expertise refers to the source's degree of knowledge of factual information associated with the issue in question; trustworthiness refers to the degree to which the source is perceived as being likely to accurately share this related factual information (Hovland, Janis, & Kelley, 1953). The source's perceived self-interest influences the relative importance of trustworthiness and expertise (McGinnies,& Ward, 1980). Imagine you are receiving information from someone who is trying to convince you of the superiority of one type of computer versus another. From your perspective, when the source is a computer salesman who has a great deal to gain if you are persuaded, then even though the salesman has expertise, it is much more important for you to find someone you consider trustworthy. If, on the other hand, when the source is a friend who has nothing to gain from your compliance, then your friend's relative level of computer expertise takes on a greater importance. On the other hand, your friend might be trustworthy, but if that friend doesn't know much about computers you are unlikely to be persuaded by his or her recommendation.

There is a credibility-related issue that may arise in hierarchical mentoring relationships. When a mentee is not sure of the mentor's motivation for sharing information, that mentee might discount some of the potential benefit of the mentor's shared expertise. In a hierarchical mentoring relationship, the undergraduate student mentee is being asked to accept the mentor's advice because of the mentor's acknowledged higher level of expertise. The mentor is viewed as knowing what's best for the student, like a manager knows what's best for a new employee, or a parent is knows what's best for a child. However, since the mentor is obviously not a student it may be unclear to the mentee whether the mentor's expertise-based advice is based on the mentor's past experiences as a student or based on how the world appears to work from the perspective of the mentor's current role as a faculty member or student affairs professional.

The mentor clearly has expertise, but when credibility is considered, the key question becomes, 'is the mentor trustworthy?' For a new-to-campus college student, it may not be clear why the hierarchical mentor is taking the time to help; maybe helping is just part of the faculty member or staff person's job. The student may not be completely clear on what to expect from someone in a faculty member or staff mentor role because of a lack of familiarity with those roles.

With peer mentoring, the situation is not the same due to a difference in role relationships. Compared to the complementary faculty and undergraduate student roles of a hierarchical mentoring relationship, with peer mentoring only one role is involved. Both the mentor and mentee share the college student role. In this case there no longer is an issue with the mentee struggling to understand the mentor's motivation. The peer mentor is seen as *trustworthy* because the peer mentor is a college student, the same as the mentee. The mentor's motivation for helping is assumed to be the same as the mentee imagines he would experience when he helped another student; one student helps another because they are in the same boat. Even if the mentee knows the mentor is being compensated for participating in the mentoring relationship, the near-peer nature of the mentor-mentee relationship causes the mentor to be seen as more similar to the mentee than faculty members or staff. In a peer mentoring relationship, the goal is assisting the mentee in becoming more expert in a role she and her mentor already share.

The peer mentor has a high level of expertise, based on previous success in enacting the mentee's current role because she is already an upper division college student. The mentor models the role of a successful college student by sharing her knowledge of faculty members' expectation for students, along with time-tested personal strategies that the mentor has used in successfully meeting those expectations. The peer mentor is seen as highly credible. The mentor's expertise and relatively greater level of trustworthiness provides an unambiguous message to the mentee that following the suggested strategies will most likely lead to mentee success because these strategies have clearly worked in the past. This is how the development of a shared common perspective on how to enact the college student role between the mentee and her peer mentor.

Therefore, because role modeling is present in peer mentoring relationships but not in hierarchical ones, and importance of similarity on trustworthiness and credibility, peer mentoring may be relatively more effective in mentoring undergraduate students due to student mentees' perceptions of peer mentors as being more credible. Mentees' interpretation of mentor motivation affects perceived mentor credibility that in turn affects how likely a student is to follow her mentor's advice. Mentees who follow their mentors advice are more likely to be successful, so sharing a common perspective about how to enact the college student role seems to be associated with student success within higher education. However because there is no research that directly compares perceptions of credibility for hierarchical and peer mentors with the same populations of students, the argument that peer mentors may be viewed as more credible by mentees remains a hypothesis.

Conclusions

This article explored three characteristics of peer mentoring relationships that make this a viable approach for promoting college student success. Two of these characteristics have to do with issues of efficiency: cost and the availability of a greater number of potential mentors. The third has to do with \ effectiveness: how differences in how role identities are acquired and whether a common perspective develops, impact perceived mentor credibility and the likelihood of a mentee actually following her mentor's recommendations.

Both hierarchical and peer mentoring are effective approaches for promoting college student success. Both types of programs can be found on many campuses. As colleges and universities look to build upon their current efforts to facilitate student success through mentoring support, it will become increasingly important to pay attention to issues of effectiveness and efficiency. Higher education researchers can assist institutional players make informed decisions by conducting studies that explore the relative effectiveness of both approaches or how to best combine approaches in complimentary ways.

References

Angelique, H., Kyle, K. & Taylor, E. (2002). Mentors and muses: new strategies for academic success, Innovative Higher Education, 26, 195–209 doi.org/10.1023/A:1017968906264

Brown, M. C., Davis, G. L., & McClendon, S. A. (1999). Mentoring graduate students of color: Myths, models, and modes. Peabody Journal of Education, 74(2), 105–118. doi.org/10.1207/s15327930pje7402_9

Bunting, B., Dye, B., Pinnegar, S., & Robinson, K. (2012). Understanding the dynamics of peer mentor learning: A narrative study. Journal of the First-Year Experience & Students in Transition , 24 (1), 61–78.

Burke, P.J. (1991). 'Attitudes, behavior, and the self'. In Howard, J. A. and Callero, P. L. (eds.). The Self Society Interface: Cognition, Emotion, and Action. New York: Cambridge University Press, pp. 189-208 doi.org/10.1017/CBO9780511527722.011

Campbell, T. A., & Campbell, D. E. (1997). Faculty/student mentor program: Effects on academic performance and retention. Research in Higher Education, 38, 727-742. doi.org/10.1023/A:1024911904627

Cerna, O., Platania, C., & Fong, K. (2012). Leading by Example: A Case Study of Peer Leader Programs at Two Achieving the Dream Colleges. MDRC Paper. doi.org/10.2139/ssrn.2010239

Collier, P. J. (2015). Developing effective student peer mentoring programs: A practitioner's guide to program design, delivery, evaluation, and training. Sterling, VA: Stylus Publishing.

Collier, P. J. & Morgan, D.(2008). "Is That Paper Really Due Today? Differences in First-Generation and Traditional College Students' Understandings of Faculty Members' Class-Related Expectations," Higher Education, Vol. 55 Issue 4, p. 425-446 doi.org/10.1007/s10734-007-9065-5

Collin's English Dictionary (2015). Retrieved from www.collinsdictionary.com/dictionary/english/perspective

Colvin, J.W. & Ashman M. (2010), Roles, Risks, and Benefits of Peer Mentoring Relationships in Higher Education, Mentoring & Tutoring: Partnership in Learning ,Vol. 18, No. 2, 121–134 doi.org/10.1080/13611261003678879

Crisp, G. & Cruz, I. (2009). Mentoring College Students: A Critical Review of the Literature Between 1990 and 2007, Review of Educational Research, 50:525–545 doi.org/10.1007/s11162-009-9130-2

Davidson, M., & Foster-Johnson, L. (2001). Mentoring in the preparation of graduate students of color. Review of Educational Research, 71(4), 549–574. doi.org/10.3102/00346543071004549

Ferrari, J. R. (2004). Mentors in life and at school: impact on undergraduate prote´ ge´ perceptions of university mission and values. Mentoring & Tutoring: Partnership in Learning, 12(3), 295-305. doi.org/10.1080/030910042000275909

Hovland, C., Janis, I., & Kelley, H. (1953). Communication and persuasion. New Haven, CT: Yale University Press.

Kram, K. E. (1983). Phases of the mentor relationship. Academy of Management journal, 26(4), 608-625. Brown doi.org/10.2307/255910

Kram, K. & Isabella, L. (1985). Mentoring alternatives: the role of peer relationships in career development, Academy of Management Journal, 28, 110–132. doi.org/10.2307/256064

Lev, L., Kolassa, J. & Bakken, L. (2010). Faculty mentors' and students' perceptions of students' research self-efficacy, Nurse Education Today 30, 169–174 doi.org/10.1016/j.nedt.2009.07.007

McGinnies, E., & Ward, C. (1980). Better liked than right: Trustworthiness and expertise as factors in credibility. Personality and Social Psychology Bulletin,6, 467-472 doi.org/10.1177/014616728063023

Minor, F.D. (2007). Building Effective Peer Mentoring Programs, Evergreeen College, www.evergreen.edu/.../lcsa4building.pdf

Palmer, R.J., Hunt, A.N., Neal, M. & Wuetherick, B. (2015). Mentoring, Undergraduate Research, and Identity Development: A Conceptual Review and Research Agenda, Mentoring & Tutoring: Partnership in Learning, 23:5, 411-426, doi.org/10.1080/13611267.2015.1126165

Pascarella, E. T., & Terenzini, P. T. (2005). How college affects students: a third decade of research (San Francisco, Jossey-Bass).

Pornpitakan, C. (2006). The Persuasiveness of Source Credibility: A Critical Review of Five Decades' Evidence, Journal of Applied Social Psychology, 2004, 34,2, pp. 243-281.

Ruthkosky, P., & Castano, S. (2007). First-Year Peer Mentoring Helps Ease Student Transition to College, E-Source for College Transitions, 5(1), 6-9.

Schunk, D. H., & Usher, E. L. (2013). Barry J Zimmerman's theory of self-regulated learning. In H. Bembenutty, T. J. Cleary, & A. Kitsantas (Eds.), Applications of self-regulated learning across diverse disciplines: A tribute to Barry J Zimmerman (pp. 1–28). Charlotte, NC: Information Age.

Stryker, S. (1968). Identity salience and role performance: The relevance of symbolic interaction theory for family research. Journal of Marriage and the Family, 558-564. doi.org/10.2307/349494

Tenenbaum, H. R., Crosby, F. J., & Gliner, M. D. (2001). Mentoring relationships in graduate school. Journal of Vocational Behavior, 59(3), 326-341. doi.org/10.1006/jvbe.2001.1804

Terrion, J., and D. Leonard. (2007). A taxonomy of the characteristics of student peer mentors in higher education: Findings from a literature review. Mentoring & Tutoring 15: 149–64. doi.org/10.1080/13611260601086311

Author information

Peter J. Collier is the director/principal investigator of Dr. Peter J. Collier Consulting, a research shop that provides design and evaluation support for college student mentoring programs. Dr. Collier has extensive experience in developing and implementing peer-mentoring programs targeting first-generation, international and other under-represented group college students. His most recent book is *Developing Effective Student Peer Mentoring Programs: A Practioner's Guide to Program Design, Delivery, Evaluation and Training,* published by Stylus Press, Sterling, VA.

Peter J. Collier, PhD
Professor Emeritus Sociology Department
Portland State University
1721 SW Broadway Suite 217
Portland, OR 97207
Email: cfpc@pdx.edu
Telephone: 503-975-8818

Creating inclusive campus communities: The vital role of peer mentorship in inclusive higher education

Catherine Lewis, DMA

Abstract

Across the country, colleges are opening their doors to students with intellectual and developmental disabilities. At University of Rochester (UR), we coordinate one such initiative called "Transition Opportunities at University of Rochester (TOUR)." Inclusive higher education at UR is based on the philosophy that ACCESS + SUPPORT = SUCCESS. In order to help our campus grow in intellectual diversity, we cannot simply open our doors to students with intellectual and developmental disabilities (IDD).We must also provide support to help students thrive academically and socially during their college education.

At the heart of TOUR are symbiotic mentoring relationships. When traditional undergraduates mentor fellow students with IDD, they gain academic and teaching skills, greater disability/diversity awareness, and an understanding of how and why inclusive communities are valuable. In turn, students with IDD find greater inclusion on their campus and invaluable academic and social skills that will launch them into self-determined lives as contributing citizens of their community.

This paper will focus especially on the growth of academic inclusion on our campus, strategies for training and supporting undergraduate academic coaches, and stories about the impact of these peer mentoring relationships on traditional UR students, their colleagues with disabilities, and our campus as a whole.

Keywords

Introduction: Who belongs in college?

We live in an exciting time. Across the United States, scholars, activists, educators, families, and students are fueling progress around the accessibility of higher education. From programs that make college more affordable to initiatives that support low-income and first generation college students to pursue their postsecondary dreams, we are witnessing positive and impactful change in the higher education world today. But there are still some among us to whom the option of college is still rarely presented. Students with intellectual and developmental disabilities (IDD) have the lowest percentage of postsecondary enrollment of any category of people with disabilities (Newman, Wagner, Knokey, Marder, Nagle, Shaver, Schwarting, 2011). Only 23% of high school students with IDD go on to attend a two- or four-year college. (Grigal, Hart, & Migliore, 2011).

But change cannot happen if we simply open the college door to students with IDD. We must also

address attitudes and expectations around who belongs on a college campus. Those of us working in inclusive higher education for people with IDD are often confronted with the question, "What's the point?". Might we be "wasting our time" (Grigal & Hart, 2010) offering college courses to students with these kinds of disabilities? As a person with a lifelong physical disability and a professional working in higher education for students with intellectual disabilities, the author of this paper will address this question by offering an alternate definition for the immense term 'disability.'

Disability is typically associated with deficit: a person with a disability is defined as someone "who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment (ADA, 1990)." The author openly acknowledges the challenges associated with disability. But disability is a rich life experience: something that has the potential to impact one's life in positive *and* challenging ways. As such, it must not simply be classified as deficit or limitation. The author chooses to define disability as *"necessary creativity."* For, no matter what type of disability a person experiences, navigating the world with an unconventional body, mind, or set of senses mandates that we become creative, flexible, and adaptable. Disability—however it manifests—necessitates a creative approach to life.

When considering access to college for people with IDD, we must first embrace the assets and strengths of people who are intellectually diverse, but it is imperative that we also provide a supportive and accommodating environment for learning. The formula for successful inclusion is access *plus* support. Peer mentorship plays a direct and significant role in making the college environment supportive and welcoming for people with IDD. Thanks to provisions in the Higher Education Opportunity Act (HEOA) of 2008, colleges are beginning to open their doors wider (Lee, 2009). The HEOA contains provisions to provide funding, model demonstration projects on campuses, and a national coordinating center for inclusive postsecondary education (Lee, 2009). As a result of this support, over 250 colleges internationally are currently supporting students with IDD (Think College, 2009). Many of these initiatives involve strong peer mentoring initiatives (Paiewonsky, Mecca, Daniels, Katz, Nash, Hanson, & Gragoudas, 2010).

As we work to foster a more holistic, asset-centered understanding of disability on our campuses, it is helpful to take a card from sociocultural researchers Norma Gonzalez, Luis Moll, and Cathy Amanti. These scholars have researched and articulated a framework they call "funds of knowledge" (Gonzalez, Moll, & Amanti, 2005). This concept begins with the presumption of competence; it shines a light on knowledgeable acquired because of, not in spite of, individuals' unique social, cultural, and familial experiences and histories (Gonzalez et al., 2005). Moll is heartened by the recent trend among scholars to "use the concept [of funds of knowledge] and [adapt] it to their own realities" (Moll, 2015). Viewing individual experiences of disability through a funds-of-knowledge lens can yield powerful, perspective-changing results. How do all the aspects of our life interconnect and make a person who they are? How does the experience of disability flavor one's academic and social behaviors, abilities, and strategies? What lessons— what strengths— might one's experience of disability impart? The concept of funds of knowledge is at the heart of TOUR mentor training and preparation. When recruiting academic coaches to support their peers with IDD, a primary consideration is avoidance of a charity mindset. Instead, we search for mentors open to learning with and from their mentee. If mentors begin by presuming competence, the pitfalls of a deficit mindset, including negative impact on mentees' sense of ability and possibility, may be avoided.

What does college look like for people with intellectual and developmental disabilities?

Students with intellectual and developmental disabilities choose to attend college for many of the same reasons other students do. As anyone who has had the opportunity to attend college knows, higher education is not simply about taking courses on a college campus. People come to college for many reasons: to immerse themselves in a field of study, to follow their passions, to become socially connected, and to explore careers. Ideally, college culminates in readiness for the "real world." But to be truly prepared upon graduation involves possessing more than academic skills. Students must also have social networks to lean on, strategies for maintaining health and wellness, tools to be engaged members of their communities, knowledge of opportunities for continuing education, and skills to obtain and maintain employment. Inclusive college initiatives offer students with IDD explicit support and training in each of these areas.

Research has been done on the impact of college for students with intellectual and developmental disabilities in particular. Students with IDD who attend college…

- Increase their social networks and self-determination (Grigal & Hart, 2010)
- Earn a 73% higher income than those who do not go to college (Migliore, Butterworth, & Hart, 2009)
- Are 26% more likely to get a job (Migliore, Butterworth, & Hart, 2009)

Such multi-faceted initiatives truly do take a village, as the saying goes. We've seen the exciting benefits of partnership at University of Rochester (UR) in our inclusive college initiative, Transition Opportunities at UR (TOUR).

A history of Transition Opportunities at University of Rochester (TOUR)

Since 2010 TOUR has been a partnership between: (a) Rochester Center for Community Leadership at University of Rochester; (b) the Institute for Innovative Transition at the Warner School of Education; (c) Monroe #1 BOCES (an organization which provides special education services to students in several districts throughout Monroe County, NY); and (d) Lifetime Assistance, Inc., an adult agency that supports people with disabilities as they transition into adult life and pursue employment. Fewer campus and community partnerships were involved when TOUR began twenty-four years ago.

Transition Opportunities at University of Rochester was launched in 1997 when a Memorandum of Understanding (MOU) was established between University of Rochester and Monroe #1 Board of Cooperative Educational Services (BOCES). This agreement opened the door for students with IDD to come to the University of Rochester campus and participate in a transition-to-adulthood program taught by special education professionals from BOCES. At this time in TOUR's history, the program had a dedicated, separate space on campus. Students with IDD received a rich education in independent living, health and wellness, and employment preparation. They had access to campus resources including the library, dining centers, and recreation facilities. But for twenty years, TOUR students were without access to the college courses University of Rochester offered to its traditional

students. Their transition and independent living education was of excellent quality, but decidedly separate from the rest of the campus community.

A pivotal moment took place for TOUR in 2010, when University of Rochester became one of forty-four campuses nationwide to receive funding from a Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSID) grant awarded by the Department of Education. TPSID grants are designed to either expand existing programs for students with IDD or develop brand new initiatives in colleges across the United States (Grigal & Hart, 2010). Grant recipients are funded for five years and are charged with following the *Think College Standards, Quality Indicators, and Benchmarks for Inclusive Higher Education* (Think College, 2009) developed by Think College at University of Massachusetts-Boston, the national coordinating center for the TPSID grant project. These guidelines illuminate best practices for campuses with regard to the following areas: (a) inclusive academic access; (b) career development; (c) campus membership; (c) self-determination; (e) alignment with college systems and practices; (f) coordination and collaboration; (g) sustainability; and (h) ongoing evaluation (Think College, 2009). A significant growth spurt occurred over the course of the five-year TPSID grant, as we worked to align with best practices and grow as an inclusive campus community.

Traditional college students have become more actively involved with and connected to TOUR since the outset of the TPSID grant. In 2010, Rochester Center for Community Leadership (RCCL) developed a social mentoring program wherein traditional undergraduates were hired as paid mentors who facilitated participation in campus life. But after two years of this paid social mentorship model, undergraduates expressed interest in transitioning to an unpaid, student-led approach to increasing social inclusion for TOUR students. They helped TOUR critique "paid friendship" and suggested that students on campus had much to gain from supporting and getting to know TOUR students simply by being their friends. After several months of thoughtful planning, students at University of Rochester formed and launched a University-recognized student organization called "People First Initiative" (PFI). Their mission is as follows:

> *"People First Initiative is an awareness organization that is dedicated to creating and fostering inclusion of individuals with disabilities on a social front. Our mission is to create equal and reciprocal relationships between typically developing individuals and individuals with disabilities to reduce misconceptions based in prejudice. We believe that such relationships are mutually beneficial, and are the first step in creating an equitable society in which diversity of ability is celebrated" (About PFI, 2015).*

PFI hosts a number of different regular events on campus, from a disability-related speaker series to campus accessibility tours led by students with disabilities. In addition to general disability awareness, PFI students interact regularly with TOUR students, going with them to concerts and sports events, cooking meals together, and hosting a twice-weekly TOUR Coffee Hour at the campus Starbucks, where all students on campus are encouraged to stop by and connect with students in TOUR. PFI has also collaborated with other disability-focused student initiatives on our campus, including UR chapters of national organizations like Special Olympics and Eye to Eye. From hosting a campus-wide campaign to end the use of the "R-word" to inviting their peers to a "Share Your Story Night" where undergraduates discuss their experiences of disability across their lifespan, students are raising the volume on conversations about disability and inclusion. Student

leadership and collaboration is key in these awareness-raising, culture-changing efforts. Ryder and Mitchell (2013) studied the dynamics among peers in college and found that, "to discuss questions or concerns about their own ethical and moral thinking and the challenges they face, students turn to other students more often than they turn to faculty or student affairs personnel."

Academic mentorship

In both Fall 2012 and Spring 2013, a TOUR student asked to participate in a college course, something TOUR students had never done, historically. Both semesters, RCCL obtained approval from College administration and professors, and two TOUR students sat in UR classes. While the opportunity was meaningful for the students, they expressed significant concern about not having enough support to feel comfortable or successful in classes. As a response, Rochester Center for Community Leadership piloted a new Academic Coaching program, wherein undergraduate students were hired and underwent significant training in academic mentoring strategies, executive functioning development, the history developmental disability, and other relevant topics. Coaches were paired 1:1 with a TOUR student whom they mentored and coached both in and outside the classroom for an entire semester. TPSID grant funding paid their wages. As illustrated in the TOUR College Course Access chart below, academic inclusion for TOUR students has increased exponentially since the initiation of a formal academic coaching program.
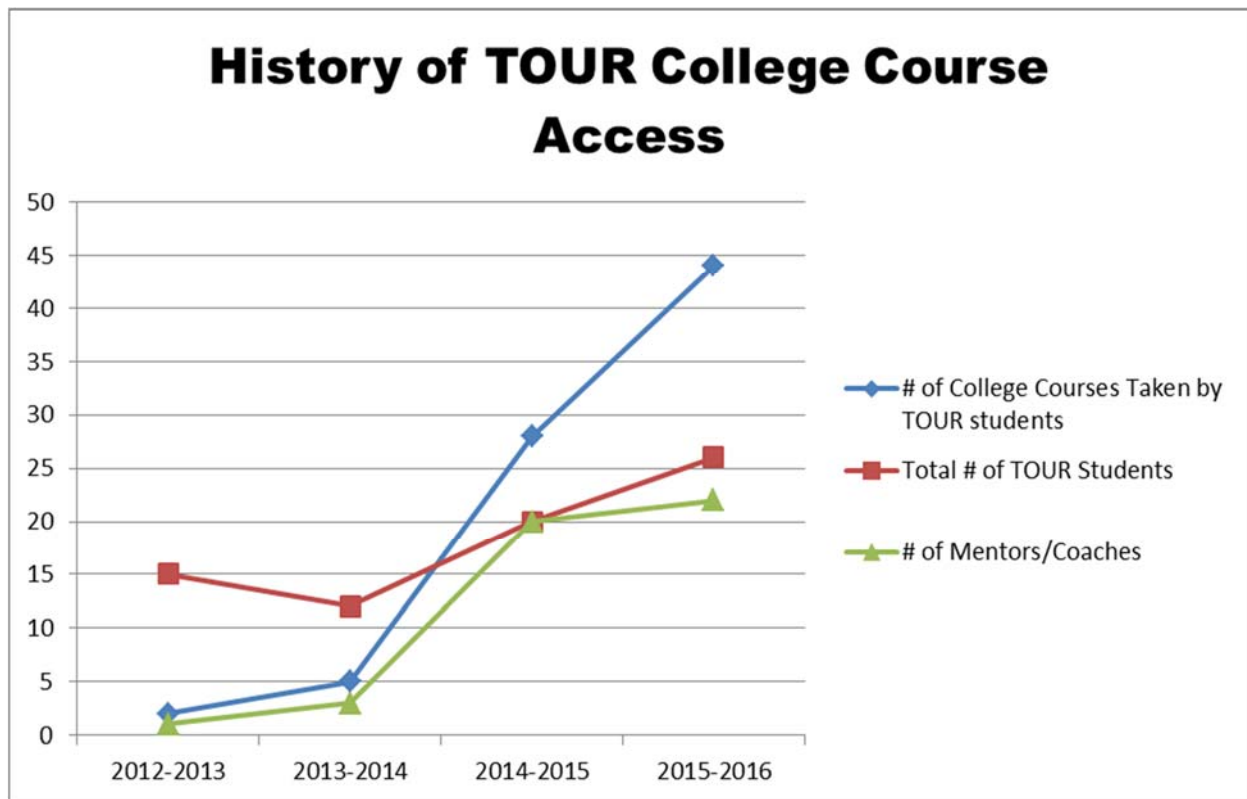

Figure 1. *History of TOUR College Course Access. Image owned by the Author.*

Peer mentorship impacts both mentors and mentees in powerful ways. These benefits are captured in feedback received from both TOUR students and their academic coaches. TOUR students have shared these insights about working with peer mentors in their college classes:

- "The mentors are a really good thing. During my college class, they break it down into steps. It's really hard for me to take notes and keep up with my notes when the teacher is talking. But when I had my mentor, they took notes. So I only wrote down important things, and then compared notes with them. With their help I was better able to understand and succeed." (2014, TOUR student interview)

- "These are college classes and they're hard. But you can use the mentors. You can't keep interrupting the teachers during class when you don't understand. But working with a mentor helps with any questions you have. Every person is different. For me, anything academic is a struggle. But for someone else, it could be stressful meeting new people. You take it step by step. Everything is going to be okay. There's a lot of support around." (2014, TOUR student interview)

When asked to articulate what others should know about inclusive higher education and the benefits of mentorship, academic coaches shared the following points:

- "People should know that being more inclusive makes higher education more open to new ideas, better possibilities, and different perspectives that help make us better people." (2016, TOUR academic coach interview)

- "Inclusive higher education doesn't just benefit people with disabilities, or even just the people directly involved, it benefits the whole community." (2016, TOUR academic coach interview)

- "Mentoring is about a constant change in perspective on how you see yourself and society… Mentoring is learning." (2016, TOUR academic coach interview)

- "People try not to look at our differences, and I feel like that is the greatest mistake any one individual can make… With our differences come unique perspectives and individuality." (2016, TOUR academic coach interview)

The ongoing development of TOUR

During the 2014-2015 year the TOUR team focused heavily on planning for the conclusion of the TPSID grant, which occurred in October 2015. Recognizing the vital nature of the academic coaching program that had thus far been grant-funded, the University of Rochester approved a budget for RCCL's continued facilitation of TOUR academic coaching, including wages for student academic coaches and a new experiential learning course that is now mandatory for all coaches. The course is called "Creating inclusive campus communities: disability, mentorship, and inclusive higher education" and covers topic areas including: (a) disability history; (b) disability legislation and policy; (c)universal design for learning; (d) establishing appropriate boundaries in mentoring relationships; and (e) strategies for supporting executive-functioning skill development. During the course, students are encouraged to engage in regular reflection and actively connect their mentoring work with TOUR with the theoretical concepts and discussions

they encounter in class. Special consideration is given to authentically highlighting the voices of citizens and scholars with disabilities, both via guest presentations and assigned readings/viewings.

Another key step forward for TOUR has been the development of a TOUR student portfolio that codifies the specific requirements for completion of the program. All students enrolled in TOUR now have consistent requirements regarding college academics, campus social experiences, paid and unpaid internships, and independent living/transition education. This portfolio was first implemented during the 2015-2016 academic year, and required that every TOUR student take at least one college course per academic year. In accordance with this requirement, all TOUR students enrolled in at least one college course of their choice during the 2015-2016 academic year, and we expect a similar result at the conclusion of the 2016-2017 year. Notably, about two-thirds of TOUR students have requested go above the minimum requirement and take one course each semester over the past two years. Each TOUR student taking a college course is required to be paired with a trained and supervised academic coach.

As part of their job, coaches must attend class alongside their mentee and meet for individual coaching sessions for at least one hour per week. Since the implementation of the academic coaching program, we have had only a handful of faculty decline a request to place a TOUR student in their course. It is important to note that faculty have most often declined for capacity reasons (no spaces left in a yoga course or studio art class, for example). By and large, UR faculty have been extraordinarily receptive to including TOUR students in their courses. The support of an always-present academic coach has proven vital in helping professors effectively navigate significant adaptions, accommodations, and behavior/engagement expectations in their classrooms. In addition to the logistical and practical benefits for faculty, the reciprocal benefits of mentoring in TOUR are best captured by highlights (see Table 1 and Table 2) from the feedback academic coaches provided at the conclusion of the Fall 2015 semester (n=12).

Table 1.
Effects on understanding accessibility, inclusion, and experiences of students with disabilities

- 100% of academic coaches surveyed agree or strongly agree that being a peer mentor has impacted their perspective on issues related to students' with disabilities access to higher education.
- 100% of academic coaches surveyed agree that being a peer mentor made them more sensitive to how higher education can support students with disabilities, intellectual and otherwise.
- 100% of academic coaches surveyed strongly agree that being a peer mentor made them more aware of discrimination that occurs for students with disabilities, on campus and off.

Table 2.
Effects on understanding of self and career options

- 75% of academic coaches surveyed agree or strongly agree that being in class with their mentee has impacted the way they think about how they learn best.

- 77.8% of academic coaches surveyed agree or strongly agree that being a peer mentor made them rethink their future career interests.

- Students surveyed indicated that they discussed their experience as a mentor to a student with an intellectual disability…

    o in their own classes (55.5%)
    o casually with friends (100%)
    o to recommend the experience to friends and peers (100%)

- 100% of academic coaches surveyed rated their experience coaching a student with an intellectual disability as ***"very positive."***

Conclusion

As the TOUR program has evolved and grown, our campus community has seen firsthand the powerful, symbiotic nature of mentorship. When traditional undergraduates mentor their peers with IDD, they gain academic and teaching skills, greater disability and diversity awareness, and an understanding of how and why inclusive communities are valuable. In turn, students with IDD find greater inclusion on their campus and invaluable academic and social skills that will launch them into self-determined lives as contributing citizens of their community. In addition to the notable impact on individual students, we are witnessing a culture shift throughout our campus community.

Recently, UR's Writing and Speaking Fellows program reached out to request a training for their tutors about TOUR and effective mentorship strategies when working with students with disabilities. As we dove into an overview of inclusive higher education on our campus, one student raised her hand. "I think there's a TOUR student in my dance class right now," she shared. "I didn't realize he had an intellectual disability or that he was part of TOUR. I just noticed that he had a mentor in class and didn't think much about it. We're choreographing a dance right now and he's in my small group. I just wanted to share that his ideas have been so creative… Having him in our class hasn't had any negative impact. It's just a benefit. He's made us more thoughtful, creative dancers." Here we find evidence of a funds of knowledge approach to disability. This student has not perceived her peer in terms of his impairment. Instead, she has noticed his positive impact on the class dynamic and the ideas generated during group activities. Anecdotes like this are powerful evidence of a shift away from a deficit model of disability toward embracing the disability difference as a valuable component of human diversity.

References

About People First Initiative. (2015). Retrieved from ccc.rochester.edu/organization/peoplefirstiniative/about

Americans with Disabilities Act of 1990, Pub. L. No. 101-336, §2, 104 Stat. 328 (1991).

González, N., Moll, L., & Amanti, C. (Eds). (2005). *Funds of knowledge*: *Theorizing practices in households, communities and classrooms*. Mahwah, NJ: Erlbaum.

Grigal M., Hart, D., Migliore, A. (2011) Comparing the transition planning, postsecondary education, and employment outcomes of students with intellectual and other disabilities. *Career Development for Exceptional Individuals*, 34(1), 4-17. doi.org/10.1177/0885728811399091

Grigal, M., & Hart, D. (2010). *Think College*! *Postsecondary Education Options for Students with Intellectual Disabilities*. Baltimore: Paul H. Brookes.

Lee, Stephanie (2009). *Overview of the Federal Higher Education Opportunity Act*. Think College. Boston, MA: University of Massachusetts Boston, Institute for Community Inclusion.

Migliore, A., Butterworth, J., & Hart, D. (2009). Postsecondary Education and Employment Outcomes for Youth with Intellectual Disabilities. *Think College Fast Facts, 1*(1).

Moll, L. (2015). *Funds of Knowledge*. Retrieved from www.youtube.com/watch?v=aWS0YBpGkkE

Newman, L., Wagner, M., Knokey, A. M., Marder, C., Nagle, K., Shaver, D., & Schwarting, M. (2011). *The post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the national longitudinal transition study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved from www.nlts2.org/reports

Paiewonsky, M., Mecca, K., Daniels, T., Katz, C., Nash, J., Hanson, T., & Gragoudas, S. (2010). *Students and Educational Coaches: Developing a Support Plan for College*. *Think College Insight Briefs, 1*(4).

Ryder, A. J., Mitchell, J. J. (2013). Measuring Campus Climate for Personal and Social Responsibility. *New Directions for Higher Education*, *2013* (164), 31-48. doi.org/10.1002/he.20074

Think College. (n.d.). *Home - Think College: College Options for People with Intellectual Disabilities*. Retrieved from http://www.thinkcollege.net/

Think College. (2010). *Standards for Inclusive Higher Education - Think College: College Options for People with Intellectual Disabilities*. Retrieved from http://www.thinkcollege.net/topics/standards-survey

Author information

Catherine Lewis serves as Associate Director, School and Community Relations, in the Office of Admissions at University of Rochester. She previously held the position of Assistant Director, Rochester Center for Community Leadership at University of Rochester, where she taught about disability, mentorship, and inclusive higher education, coordinated academic access and peer mentor supports for students with intellectual and developmental disabilities, oversaw a literacy tutoring program in partnership with Rochester City School District, and advised undergraduate student organizations dedicated to political and community engagement. Dr. Lewis received both her Master of Music and Doctor of Music degrees from the Eastman School of Music, and studied Higher Education at University of Rochester's Warner School of Education.

Dr. Catherine Lewis, DMA
Assistant Director, Rochester Center for Community Leadership
University of Rochester
107C Lattimore Hall
Rochester, NY
Email: catherine.lewis@rochester.edu
Telephone: 585-275-8172

Peer Advisors for Veteran Education (PAVE): Implementing a sustainable peer support program for student veterans on college campuses

Michelle Kees, PhD; Brittany Risk, LMSW; Chrysta Meadowbrooke, MS; Timothy Nellett, BA; and Jane Spinner, MSW, MBA

Abstract

Student veterans have been attending college in greater numbers since the passing of the Post/9-11 GI Bill. Although similar to other nontraditional students, student veterans face unique transition challenges that can affect their pursuit of higher education. Many student veterans could benefit from dedicated programs to help them succeed in college, which in turn would enable them to secure employment in the civilian world. Facilitating the success of student veterans also makes wise use of the financial and institutional resources invested in their education. Peer support programs can help by providing an established community of other student veterans who can normalize transition experiences, offer social support, reduce stigma associated with help-seeking, and connect to useful services on and off campus. This paper describes the iterative development of a nationwide peer support program for student veterans, Peer Advisors for Education (PAVE), which uses trained peers to provide outreach, support, and linkage to resources to assist student veterans. Through a hybrid technology platform for training and program management, PAVE has been delivered on 40 college campuses nationwide and is well-positioned for larger scale national rollout.

Keywords

Peer support, military transition, peer program development, Post 9-11 GI Bill

Student veterans on college campuses

Campuses nationwide have experienced a vast increase in the number of veterans attending college in recent years, with over one million people using the Post-9/11 GI Bill during the four years after its inception in 2009 (U.S. Department of Veterans Affairs, 2013). The number of student veterans using these education benefits is expected to continue rising, given that the population of post-9/11 veterans is estimated to increase to more than five million by 2020 (U.S. Government Accountability Office, 2013). The need for programs that support student veterans and their unique circumstances will continue to grow as well.

Student veterans are in many ways nontraditional students (McBain, Kim, Cook, & Snead, 2012). Older than their traditional classmates, they tend to have greater maturity gained through full-time work and other life experiences. Nontraditional students may feel stronger intrinsic motivation for learning and perseverance than traditional students (Bye, Pushkar, & Conway, 2007). However, nontraditional students often have more responsibilities to manage outside of

the classroom, such as working, parenting, and caregiving, which may affect their coursework and their engagement in the campus community (Kimmel, Gaylor, Grubbs, & Hayes, 2012). Moreover, they also may need to refresh their academic skills and adjust to new educational technologies.

In addition, other challenges faced by student veterans can set them apart from both traditional and nontraditional students in significant ways. Veterans who transition from the military to college may find themselves in an unfamiliar and potentially isolating environment in which they have to learn to navigate the differences between military and academic cultures (Rumann & Hamrick, 2010). Aside from the stresses common to college students, student veterans may also struggle with those found in the overall veteran population, such as economic uncertainty, changes in self-identity and relationships, physical injuries and related neurobehavioral symptoms, and mental health issues including depression and post-traumatic stress (Institute of Medicine, 2013; Tanielian & Jaycox, 2008; Barry, Whiteman, & MacDermid Wadsworth, 2014). The transition into college may be particularly difficult for female veterans, whose military and civilian experiences can differ markedly from those of their male colleagues (Burkhart & Hogan, 2015; DiRamio, Jarvis, Iverson, Seher, & Anderson, 2015).

Leveraging peers

Not all student veterans struggle in college, but among those who do, many hesitate to seek help due to concerns about stigma in both military and civilian contexts (Bonar, Bohnert, Walters, Ganoczy, & Valenstein, 2015; Elliott, Gonzalez, & Larsen, 2011). Peer programs may help reduce stigma and other barriers to care for veterans (Nelson, Abraham, Walters, Pfeiffer, & Valenstein, 2014; Zinzow, Britt, McFadden, Burnette, & Gillispie, 2012) and are a good fit on college campuses, where peer programs are commonly used to help students with adjustment to college life and persistence in their education (Shook & Keup, 2012; Swenson, Nordstrom, & Hiester, 2008).

Peer programs may help student veterans with the transition into college by connecting them with other student veterans who can offer information, resources, and a community of people who have had similar experiences and can offer social support (Steele, Salcedo, & Coley, 2010; Whiteman, Barry, Mroczek, & MacDermid Wadsworth, 2013). Social support helps protect against the effects of stressors (Cohen, 2004) and creates a sense of connectedness and engagement that are important to having a successful college experience (Kuh, Curce, Shoup, Kinzie, & Gonyea, 2008; Hausmann, Schofield, & Woods, 2007). Student veteran peer programs harness strengths inherent to the military ethos, including camaraderie, the buddy system, structure, and a sense of belonging. Student veterans already established on campus are also well suited to the task of helping other student veterans make the transition to academia; they can normalize the experience and provide local resources targeted to specific needs (DiRamio, Ackerman, & Mitchell, 2008). Finally, peers who share common ground can help build trust and reduce stigma associated with seeking help (Mead, Hilton, & Curtis, 2001; Solomon, 2004). Thus, peer programs such as Peer Advisors for Veteran Education (PAVE) can play a key role in promoting academic and personal success for student veterans on college campuses (Kees, Risk, Meadowbrooke, Spinner, & Valenstein, in press).

Peer Advisors for Veteran Education (PAVE)

Peer Advisors for Veteran Education (PAVE) is a peer support program that connects incoming student veterans with student veterans already on campus who have been trained as Peer Advisors. Peer Advisors assist other student veterans in navigating college life by providing a welcoming community and offering information and resources that can help address challenges they may encounter. PAVE has been developed in three phases and is currently implemented on 40 campuses across the country.

Figure 1. *PAVE Partner Campuses in the United States. Reprinted with permission.*

Program model and program goals

The main goals of the PAVE program are to: (a) ease the transition of student veterans from the military to college; (b) improve student veterans' sense of belonging on campus; (c) identify health concerns in a timely fashion and connect student veterans with appropriate resources; (d) create a feeling of community and a source of support among knowledgeable veteran peers; (e) increase student veteran retention rates; and (f) improve student veterans' academic performance.

The PAVE program model focuses on three pillars: outreach, support, and resource linkage.

- Outreach: Peer Advisors reach out to student veterans on a regular basis throughout the academic year. The purpose of this outreach is twofold: to inform student veterans about PAVE and other veteran-related services and events, and to check in consistently with students to see how things are going.
- Support: Through ongoing contact and shared activities, Peer Advisors create opportunities to discuss the student veteran experience, build trust, and ask if student veterans have any questions or concerns they could help resolve. Peer Advisors often establish camaraderie and credibility by providing information to address simpler needs first (e.g., orientation, parking, food, social events), which lays the groundwork for more personal conversations in the future.
- Resource linkage: Peer Advisors receive training about relevant on-campus and off-campus resources so that when a student veteran has a concern, a Peer Advisor can refer

the student veteran to the best resource for their needs. Training includes the concept of a warm hand-off, in which the Peer Advisor creates a direct connection between the student veteran and someone at the referred resource, e.g., by calling ahead or going to the resource office together.

PAVE is not a counseling or treatment program; the PAVE Team uses a peer-based public health approach to foster credibility with student veterans and help overcome stigma around help-seeking. Decreasing stigma is of special relevance to student veterans for whom concerns about being weak or needing help may get in the way of asking for assistance, which is crucial to successfully transitioning to academic life after leaving the military.

Iterative development of PAVE

PAVE is part of the University of Michigan's Military Support Programs and Networks (M-SPAN), a suite of programs addressing mental health and wellness for service members, veterans, and their families. PAVE emerged as a collaboration between the University of Michigan Depression Center and Department of Psychiatry and Student Veterans of America (SVA). The M-SPAN Team has an established history in developing and implementing peer programs in the military and veteran space. In 2008, M-SPAN worked collectively with the Michigan National Guard, colleagues at Michigan State University, and several Vietnam veterans to develop Buddy-to-Buddy, a community-integrated peer program for post-9/11 service members and veterans (Greden et al., 2010; Dalack et al., 2010). Recognizing the increasing numbers of veterans returning to civilian life and entering college, and noting the emerging issues with transition challenges, in 2012 the M-SPAN Team consulted with subject matter experts and reviewed recommended literature to further delineate issues and gaps in services specifically for student veterans. This exploration provided further evidence that stigma issues were a significant barrier to student veterans' willingness to seek assistance, and that there was a lack of awareness about available services and how to connect to them. It was hypothesized that using student veteran peers who had "been there" would resonate with incoming student veterans, and that these peers could help overcome stigma issues and facilitate linkage to needed resources on campus and in the community.

The development, implementation, and refinement of PAVE has occurred across three phases since 2012: (1) a pilot phase of early development and feasibility of PAVE at three Michigan colleges; (2) a second phase of expanding and refining PAVE with 13 national campus partners; and (3) a third phase of developing a technology platform for training and implementation to deliver PAVE at an additional 30 national campuses. The following sections of this paper will describe each phase of implementation and provide an overview of changes in the program model, key components of training in the model, and strengths and challenges encountered.

Phase 1. Piloting PAVE

In 2012, PAVE was launched as a one-tier peer-to-peer model using existing local SVA chapters to recruit and train Peer Advisors to work directly with student veterans. The program was initially piloted at three Michigan colleges, and the PAVE Team worked with the colleges' Veteran Services Coordinators (VSCs) to recruit Peer Advisors on campus to lead the program.

The intent was for Peer Advisors to engage student veterans on campus, conduct outreach activities, provide peer support, and then connect student veterans with needed resources to help them succeed on campus.

Training Peer Advisors in the PAVE Model

Training in the PAVE model is a critical component of the program, and one that has evolved significantly over time. In the pilot implementation of PAVE, the PAVE Team went to each of the three campuses to conduct an in-person one-day training with Peer Advisors. During this phase, 17 Peer Advisors were trained on five key topic areas: (a) Peer Advisors' roles and responsibilities; (b) communication skills; (c) referrals and warm hand-offs; (d) recognizing mental health problems and managing mental health emergencies; and (e) self-care.

The Peer Advisor training built upon the strengths of student veterans as knowledgeable adult learners with lived experience and skills. PAVE trainers were culturally competent in working with military and veteran populations, either having been a member of the population themselves or having a professional background working with veterans. After the training, Peer Advisors were then supported by the PAVE Team via phone calls as they engaged with student veterans on their campus.

Strengths and Challenges

One of the key successes of the early PAVE pilot model was the good fit of using peers with student veterans. Student veterans were receptive to receiving help from their peers. Peer Advisors, also being student veterans, had a deep commitment to serving others and were invested in the program. The title of Peer Advisor was a deliberate and purposeful choice, due to the stigma commonly associated with the terms "peer mentor" and "peer counselor." This model of engagement continues to be an effective outreach strategy, normalizing receiving assistance.

Another success of the program was the offering to campuses of a set model, grounded in evidence-based approaches for both engaging college students and supporting veterans, along with a training curriculum and on-going logistics and implementation support from the PAVE Team. The pilot campuses wanted to do a peer support program for their student veterans, but did not know the key elements or strategies of implementing a program. PAVE filled that gap, and offered a tailored approach to fit their campus needs.

Several challenges emerged during the pilot phase of PAVE. First, it became clear that there were distinct functions that were necessary for program success. The Peer Advisors had to provide outreach and support to student veterans, and had to assume management of the program. Without clarity on who would perform these roles across the group of Peer Advisors at a school, they struggled to take on both functions. Furthermore, if one person in the Peer Advisor group was under-performing or not providing services within the scope of the role, it meant that the group had to figure out how to handle those issues, which were not easy tasks to execute among peers. Moreover, Peer Advisors found it difficult to identify and engage the broad population of student veterans. At the time of the pilot, student veterans were not routinely

tracked or identifiable on many college campuses. This early pilot yielded important information about program enhancements to incorporate into the next phase of PAVE.

Phase 2. Expanding and refining PAVE

In mid-2013, PAVE partnered with SVA at the national level to implement the program on additional campuses. SVA was a natural strategic partner since PAVE and SVA had the same primary goal: the academic and personal success of student veterans. Furthermore, SVA had established chapters on over 700 campuses with student veteran leaders as members, and these members could potentially serve as Peer Advisors. Both organizations agreed that the introduction of an additional and distinct leadership role was an important element to add to the model. Because taking on this role included a higher level of responsibility, student veterans on each campus who assumed these responsibilities would be offered paid stipends . Campuses sought varied approaches to paying team leaders, including internal discretionary funds, external grant support, or work-study through the campus or VA. This new role was designated the Peer Advisor Lead, or PAL. This role proved to be one of the most successful model shifts implemented. To more effectively distinguish their role and authority, the position was subsequently renamed Team Leader.

This phase of PAVE thus included a two-tiered system. Each campus had a paid Team Leader and a cadre of volunteer Peer Advisors who worked together with the VSC to implement the PAVE program. Team Leaders represented the on-campus program managers of PAVE and were essential in the day-to-day operations and success of the program. Peer Advisors were the core members of the PAVE Campus Teams and were responsible for direct outreach, support, and linkage to resources for student veterans. VSCs became integral to the success of PAVE and worked closely with Team Leaders and Peer Advisors, particularly in the area of recruiting and training team members. VSCs, who could provide continuity in PAVE from year to year, became the linchpin of the program. Furthermore, after further outreach and training, faculty leads enlisted to support the VSCs during times of transition, an innovation that evolved into the University Champion role.

Nationwide, 13 campuses participated in this phase of PAVE, reaching out to more than 2,100 student veterans between August 2013 and August 2016. The top three areas of student veteran concerns, as identified in logs submitted by Peer Advisors, included education (e.g., class registration, academic issues, study habits, tutoring, writing assistance), benefits and claims (e.g., GI Bill eligibility and enrollment, processing for VA healthcare claims), and mental health (e.g., anxiety, depression, general stress, posttraumatic stress, suicidality, substance use).

Training Campus Teams in the PAVE Model

A pivotal part of the program involved in-person trainings in the PAVE model with all members of the Campus Teams (Peer Advisors, Team Leaders, and later in implementation, the VSCs and University Champions) at each participating school. The PAVE Team conducted 56 trainings of Peer Advisors and Team Leaders, resulting in 262 individuals trained for those roles, as well as 2 trainings of VSCs and University Champions, with 17 individuals trained.

Peer Advisors. The curriculum for the one-day Peer Advisor training consisted of modules covering the history of the model; the scope of the program and team member roles; the core pillars of the program (outreach, support, and resource linkage) and best practice strategies for each; and skills training to help Peer Advisors meet their responsibilities as they assisted student veterans. For example, skills training included communication skills, team and community building, recognition of red flags, and role-plays to practice how to effectively refer student veterans to resources and what to do in the case of mental health emergencies. Self-care was its own module, with a strong emphasis placed on Peer Advisors taking good care of themselves so they could support others.

Team Leaders. Team Leaders also participated in the Peer Advisor training and received an additional one-day training designed to give them the necessary tools to plan, implement, and manage PAVE at their schools. The focused training included: (a) more extensive material about roles and responsibilities; (b) methods for successful outreach; (c) tips on building a resource network and making effective warm handoffs;(d) strategies for reducing stigma and barriers to care; (e)volunteer management; and (f) group facilitation skills. Feedback from Team Leaders early in this phase indicated the need for more concrete steps and assistance with mapping out the plan for PAVE implementation early in the semester. This led to the development of a key program tool, the Campus Work Plan, with a corresponding exercise added to the Team Leader trainings. PAVE trainers actively engaged Team Leaders in the development of a Work Plan customized to their campus, with detailed action steps for achieving program goals, including recruiting Peer Advisors, reaching out to student veterans, and building a network of veteran resources.

Veteran Services Coordinators and University Champions. Training materials for VSCs and University Champions changed to support their expanded role in overseeing the program on their campus. VSCs and University Champions attended a one-day in-person training in Ann Arbor, Michigan, with 4 campuses grouped in a spring 2014 training and 6 campuses in a fall 2014 training. These trainings gave VSCs and University Champions the opportunity to connect with the PAVE Team and to network with other PAVE campuses. The training focused primarily on understanding the PAVE model, key factors critical for model fidelity, and strategies for successful implementation. Additional topics included how to facilitate local trainings with Team Leaders and Peer Advisors, and demonstration of online communication tools used in the program (e.g., reporting suite and program management software).

Implementation of PAVE

After comprehensive training in the model, PAVE implementation began on the 13 campuses, with ongoing support from the PAVE Team provided through a combination of large group conference calls with Team Leaders and individual calls with Team Leaders or VSCs. The focus for these calls included reviewing essential program components, especially those related to the current implementation phase of the campus, and brainstorming strategies for success.

As campuses implemented PAVE, they asked Peer Advisors to document their efforts in the program. Peer Advisors tracked their interactions with student veterans through a secure web-based portal, noting information about the needs addressed with student veterans and the type of

referrals provided. Team Leaders submitted online bi-weekly reports to the PAVE Team for review and discussion in the campus calls. Bi-weekly reports contained information about outreach activities; PAVE events and attendance; the pairing of student veterans with Peer Advisors; management and supervision of Peer Advisors; and connections made with faculty or other campus staff to talk about PAVE and its integration on campus.

Strengths and Challenges

PAVE campuses noted that they did not want to identify PAVE as a mental health program when promoting the program to student veterans, because of the stigma of mental health and the stereotype of student veterans as "broken heroes." This stigma presented a potential barrier to engagement in the program and ultimately threatened veterans seeking access to needed resources. In response, the program model quickly shifted to a public health approach, with an emphasis on identifying any needs of student veterans, be it financial, housing, legal, academic, health, mental health, or others.

Early in this phase of implementation, campuses were also facing a challenge in engaging student veterans with the program. To address both stigma and engagement, PAVE launched a match process for student veterans and Peer Advisors, the Opt-out model. In the Opt-out model, PAVE matched all incoming student veterans with a Peer Advisor, unless they chose to opt out of the program. PAVE then became a universal and routine offering to all student veterans on campus, as opposed to a targeted program for only the "struggling" students.

Implementing the Team Leader position was a critical factor in the success of a PAVE Campus Team. Team Leaders have created resource networks, obtained buy-in from campus stakeholders, and served as the cornerstone of student veteran leadership on their campus. For many student veterans, the Team Leader position is one they can relate to and understand, given the similar leadership structure of units within the military. The Team Leader provides the direct support, guidance, and focus Peer Advisors are accustomed to, with Peer Advisors benefitting from the peer support provided by their Team Leader much in the way that student veterans do from the Peer Advisors. The Team Leader also proved crucial to day-to-day implementation of PAVE on the campus. With a program heavily dependent on the energy, drive, and commitment of its personnel, an effective Team Leader had the potential to shape and elevate their PAVE Team into something new student veterans wanted to know more about, and participate in.

While the centralized logging portal implemented during this phase greatly improved the documentation of Peer Advisor efforts, Peer Advisors reported that they did not use the system consistently to record all of their outreach and interactions with student veterans. Some schools developed creative ways to increase logging, such as getting the Campus Team together at logging parties to eat pizza and back-log recent activities. It became clear, however, that another approach was needed in order to accurately and easily document the efforts of the program, and that perhaps logging could be done from smart phones or near real-time.

Succession and sustainability planning remained a challenge for campuses, even with the introduction of the Team Leader role. Strong leadership by active student veterans in a given year resulted in a successful program for that year, but efforts at training the "next generation"

often fell short, and once student leaders graduated, new program leadership was not guaranteed. Schools found student veterans that had a positive experience with PAVE during their transition were more likely to volunteer and become Peer Advisors later on. PAVE staff encouraged the schools to incorporate these student veterans into the sustainability plan to replenish Peer Advisors each year.

The addition of 13 new schools and the expansion beyond Michigan drove home another sustainability challenge for the program: the resource costs incurred by having PAVE staff travel to individual schools to conduct in-person trainings for the Campus Teams. Scheduling also posed difficulties since most schools wanted to host trainings near the same time of year as they prepared for fall semester, resulting in a whirlwind of staff travel while also continuing to manage daily aspects of the program that required regular attention. One possible solution was to utilize a "train the trainer" model where VSCs would hold the responsibility for training the next cohort of Team Leaders and Peer Advisors. However, VSCs have many roles and competing priorities, with variable knowledge about the specifics of the PAVE program, so this too presented a challenge. It became clear that creating an online platform to make core training materials available at any time or location would benefit the program overall.

Phase 3. Scaling PAVE with a technology platform

The experience with the schools from the pilot and first phase of expansion confirmed that the enhanced PAVE model was effective in training Team Leaders and Peer Advisors to provide outreach, support, and linkage to needed resources for incoming student veterans at their schools. This led to planning how to scale the program, and whether it was possible to maintain the fidelity of the model and the high touch support to the schools, while increasing the number of PAVE campuses nationally. In this next phase of PAVE, a technology platform was developed and launched that allows for scalable training, tracking, and program management, while also expanding the program to an additional 30 campuses.

Technology Platform

Working with experts in technology and health communications, PAVE developed a multi-level platform for that includes three components. First, a Management Console allows VSCs and Team Leaders to manage the PAVE program on their campuses. It includes mechanisms to match student veterans with Peer Advisors, push out information to Peer Advisors electronically, and track trends and identify gaps in services. Secondly, a mobile-configured, web-based Tracking System enables Peer Advisors to more easily track their contact with student veterans.Lastly, an Online Training Course condenses the in-person training for Peer Advisors and Team Leaders to a set of interactive and engaging web-based modules. This integrated technology platform is self-sustaining and schools can use it as they continue to train new campus team members, and as new schools join the PAVE network.

Management Console. The Management Console includes functionality that allows VSCs and Team Leaders the ability to perform several key program tasks: securely upload student veteran information into the system and then match them to Peer Advisors and Team Leaders; invite Peer Advisors and Team Leaders to begin the online training; review Peer Advisor outreach

efforts and interactions with student veterans; communicate with Peer Advisors on their work and suggest additional resources; upload and update an online resource guide compiled by their team; and complete bi-weekly reports that are sent to the PAVE Team to review. It also includes an embedded data collection tool that tracks usage of the system for Campus Team review.

Tracking System. The Tracking System operates on a secured mobile-configured website, and can be accessed easily through a smartphone or a computer. Through the Tracking System, Peer Advisors can log outreach and peer support activities, and can access a customizable resource directory for local and campus-specific resources. After each contact with a student veteran, Peer Advisors track their activity on the site, and answer a series of brief questions about their contact with the student veteran, including whether this was a first-time or repeat interaction, what the contact was about (e.g., student veteran needs), and what resource was provided to the student veteran. Past team leaders specifically requested a mobile-based application to reduce the barriers in tracking and logging program activity. This tracking information can evaluate impact and usage of the program and can inform individual campuses about their greatest student veteran needs and resources.

Online Training Site. The Online Training site includes a personalized welcome letter to each user to set the tone, and generate enthusiasm and buy-in. Peer Advisors can then access and complete the PAVE training modules (described below) at their own pace. In addition to the training modules, the site features a library of testimonial videos from Peer Advisors, Team Leaders, and VSCs speaking to their experience transitioning from military to college and the impact the PAVE program has had on their campus. The Training site also contains a toolkit, called the "PAVE Backpack", which allows easy access to program materials, tips sheets, and templates that will guide Team Leaders and Peer Advisors in successfully carrying out their roles.

Recruiting and Onboarding New Schools

In this phase of expansion, the PAVE Team worked closely with partners at SVA and the Department of Veterans Affairs to recruit and select campuses to participate in PAVE. Through a robust screening and interview process, the PAVE team selected 30 schools based on presence of success factors identified from the pilot launch. These factors included: (a) the number of student veterans on campus; (b) the number and diversity of existing veteran-friendly programs; (c) thecommitment of the VSC to the program; level of interest from student veteran leaders; endorsement from SVA or the VA; and ability to meet the expectations involved in implementing the program. the PAVE Team intentionally selected a representative mix of large public universities, private schools, and community colleges so as to garner data on specific challenges in each setting.

Upon selection as a PAVE partner campus, schools began the initial work necessary to launch the program in the fall of 2016, including completion of a Memorandum of Understanding (MOU) between the school and the University of Michigan. The PAVE team asked each campus to identify a 3-person Campus Team, comprised of the Team Leader, the VSC, and a University Champion. Teams then participated in a series of webinars designed to introduce them to the

PAVE model and to start the pre-work for launching the program (e.g., Welcome to PAVE; Recruitment 101; Tech Walkthrough).

Hybrid Training Model

In its first iterations, PAVE delivered trainings in-person over the course of multiple campus visits. This approach, while effective, was very time intensive and not conducive to large-scale dissemination. Thus, a hybrid training model was developed that includes a redesigned and more efficient in-person training for Campus Teams, an online training course with a series of interactive educational modules, and ongoing support from the PAVE Team to insure model fidelity.

In-person Training for Campus Teams. During August 2016, 128 representatives from 40 colleges and universities (12 original PAVE campuses and 28 new ones) attended the National Training Conference (NTC). The training was an updated and redesigned 2-day in-person training which included general sessions for the larger group, and also tracked training sessions for participants from each role category of the team. Tracked training sessions offered a unique opportunity for trainees to learn from each other and to form their own national peer group. The training also included protected time for the development of a Work Plan tailored for each school on what resources they needed to mobilize; how to recruit, enroll, and engage student veterans; and how best to manage Peer Advisors through team building.

Online Training Modules. As part of the process of converting the in-person training for Peer Advisors to a web-based platform, the PAVE team reviewed numerous modalities for optimized online engagement and learning preferences of our student veteran target audience. Six online modules for Peer Advisors were developed and released, with an additional module for Team Leaders (See Table 1 below). Each module ranges from 10 to 23 minutes in length, contains an animated video using cartoons, and an exercise that tests a Peer Advisor or Team Leader's ability to apply the material covered in the video. Peer Advisors and Team Leaders are required to complete the entire training before providing peer support to student veterans.

Table 1.
PAVE Online Training Modules

Session	Module	Topics
1	Welcome to PAVE	Program model and overview; roles and responsibilities; confidentiality
2	Outreach Strategies: How to Connect with Student Veterans	Engagement theory; strategies to increase engagement; challenges of non-response
3	Providing Support Through Effective Communication	Communication skills; barriers to communication; boundaries
4	Resource Linkage: How to Make Successful Referrals	Building a resource network; creating a resource guide; warm hand-offs
5	Mental Health Concerns: What to Look for, How to Help	Identifying red flags; combating stigma; handling emergencies
6	The Importance of Self-Care	Recognizing signs of burn-out; reaching out for support; creating positive self-care strategies
7	Being a Great Team Leader	Roles and responsibilities; recruiting and supporting peer advisors; managing the program

Support from the PAVE Team. The PAVE Team provided ongoing implementation support to each school, including the technical assistance necessary to ensure full and correct usage of mobile and web-based tools. Campus Teams had access to PAVE staff during business hours and on a scheduled basis via phone, text, online chat, and video conference functions. Individual check-in calls for Campus Teams allowed each team to discuss successes, challenges, and next steps, and to receive consultation and guidance from the PAVE Team. The primary areas of focus for these calls were implementation challenges, recruitment and outreach opportunities, and timeline targets for the program. Regular support calls with all Campus Teams increased peer support and collaboration across campuses. Additionally, the team offered webinars to continue to train campuses on the three components of the PAVE technology platform.

Strengths and Challenges

A key success of the latest PAVE model centers on the robust and diverse use of technology for campus management of the program, training team members, and tracking activity of the Peer Advisors. The technology platform has had a significant impact on the number of schools that can be on-boarded to the program, and therefore the number of student veterans who can be served. In the first eight months of implementation of this phase of PAVE, PAVE Campus Teams reached more than 5000 student veterans. Planners also designed this platform to be self-sustaining such that schools can continue to use all components of the technology in ongoing implementation of PAVE, with recruitment and training of new Peer Advisors, and enrolling of new cohorts of student veterans in subsequent semesters.

The Management Console allows Team Leaders and VSC to track and manage all aspects of the program from a central shared platform, from the point of matching student veterans with Peer Advisors, to tracking Peer Advisor activity, and building a resource database for the program. Training of Campus Teams has also become more standardized and more efficient with the development on the online training modules. In the first six weeks of fall 2016, 318 Peer Advisors and Team Leaders completed the online training. More Peer Advisors completed training online in six weeks than were trained in-person over the course of 3 years. Lastly, the tracking system makes it easy for Peer Advisors to track their activity in the program and to share this information with their Team Leaders and the PAVE Team.

While most partner campuses have had great success implementing PAVE, the first year is time intensive and sometimes challenging for schools. The length of time that it takes to embed a PAVE team fully on a campus averages about three semesters, and the need for a strong Campus Team is imperative. Several factors seem to result in difficulties in implementation, including staff turnover at the VSC or University Champion level, lack of administration buy-in, ebbs and flows in participation by Team Leaders and Peer Advisors, interpersonal conflict among Campus Teams, and inability to secure ongoing funding for the Team Leader role. Some schools have been unable to implement PAVE effectively, due to these challenges.

The PAVE Team provides high levels of support continually after program launch to assist schools through these challenges in hopes of ultimate success. Individualized support is provided to each campus along with the opportunity to connect with other schools who are also implementing the program. While training and program management tools are beneficial and needed, ongoing technical assistance and support from the PAVE Team is also critical. Campus Teams have also recognized the value of the PAVE Team's guidance and expertise in problem solving throughout program implementation.

Next Steps

As described, PAVE has benefited from a multifaceted and iterative development process responsive to real-world feedback from partner campuses as they have implemented the program. The final product is a turnkey peer support program for college veterans that has been field-tested and found to be effective . It connects with student veterans, providing peer support, and linking students to needed resources on campus and in the community (Kees et al., in press). The next steps for PAVE go in two directions: 1) increasing the PAVE network with more partner campuses; and 2) developing and disseminating online modules specifically for student veterans participating in PAVE.

PAVE Network Growth

The web-based platform for disseminating PAVE is virtually limitless, capable of supporting a vast rollout and scaling of the program at the national level. Increasing the network of PAVE schools is a priority next step, with several potential directions under consideration. One approach is to replicate the most recent expansion efforts with the release of a new Request for Applications and engaging campuses around the country to launch PAVE. Another possibility is to focus on regional expansion by selecting a specific state(s) and identifying a cohort of schools

in that area to implement PAVE. A third approach shifts the lens to community colleges, which are a common route for veterans making the transition to 4-year universities.

Data from the U.S. Department of Education indicate that 43% of military students attend community colleges (Radford, 2011). Six of our PAVE campuses have been community colleges and present unique challenges in implementing peer support programs because of factors often inherent to community colleges (e.g., more likely to be commuter schools, with short-term attendance, and challenges in establishing a community). The PAVE Team has learned some important lessons in collaborating with community colleges, and is now in a better position to offer a successful peer program to this unique group of student veterans.

Each of these three expansion approaches require funding to maintain fidelity of the model, including attendance at the initial PAVE training and the ongoing support and technical assistance provided by the PAVE Team. Funding models under exploration include a fee-for-service model with schools, foundation grants, donor or corporate gifts, or research grants examining the longitudinal impact of the program.

Online Modules for Student Veterans

To date, the PAVE program focuses on training and support of the Campus Teams (Peer Advisors, Team Leaders, VSCs, and University Champions), with no direct engagement or materials for student veterans on PAVE campuses. Campus Teams have specifically requested additional resources to share with their student veterans. To this end, the PAVE Team recently piloted an in-person "Success Course" for student veterans at two campuses. Participants received the course very well, and yet, dissemination of the course as an in-person offering presents challenges for costs and sustainability. A next step for PAVE is to convert key components from this Success Course into online modules using the same interactive approach currently utilized in the online training for Peer Advisors and Team Leaders. The PAVE team will develop the existing materials for the Success Course in three areas: Personal Growth and Development; Academic Success; and Career Preparation. Peer Advisors will be well in position to share this information directly with student veterans on their campuses, and the team expects them to have a positive impact on the academic and personal success of those students.

Conclusion

Veterans are returning to college campuses at the highest rate since World War II, with a taxpayer investment in their education benefits reaching more than $20 billion since 2009 (U.S. Department of Veterans Affairs, 2016). According to research conducted by the PAVE Team's partner organization, SVA, more than 347,00 student veterans have earned degrees and certifications using the Post-9/11 GI Bill since 2009 (Cate, Lyon, Schmeling, & Bogue, 2017). In 10 years, more than 1.4 million student veterans will have earned college degrees. Moreover, student veterans are doing well in school. Student veterans have a higher GPA than the national average (3.35 vs. 2.94), and have a higher graduation rate than similar non-traditional peers (Student Veterans of America, 2017).

The best service we as a country can give to those who have served is to help them succeed. PAVE is a well-designed, field-tested, peer-to-peer approach that offers a strategic solution for institutions to better support the student veteran population, while also increasing student veterans' connection to campus, decreasing stigma around help seeking, and providing linkage to needed resources. PAVE is a promising model for supporting student veterans on college campuses as they transition from the military to academia, and ultimately to successful employment.

References

Barry, A. E., Whiteman, S. D., & MacDermid Wadsworth, S. (2014). Student service members/veterans in higher education: A systematic review. *Journal of Student Affairs Research and Practice, 51*(1), 30–42. doi.org/10.1515/jsarp-2014-0003

Bonar, E. E., Bohnert, K. M., Walters, H. M., Ganoczy, D., & Valenstein, M. (2015). Student and nonstudent National Guard service members/veterans and their use of services for mental health symptoms. *Journal of American College Health, 63*(7) 437–446. doi.org/10.1080/07448481.2014.975718

Burkhart, L., & Hogan, N. (2015) Being a female veteran: A grounded theory of coping with transitions. *Social Work in Mental Health, 13*(2), 108–127. doi.org/10.1080/15332985.2013.870102

Bye, D., Pushkar, D., & Conway, M. (2007). Motivation, interest, and positive affect in traditional and nontraditional undergraduate students. *Adult Education Quarterly, 57*(2), 141–158. doi.org/10.1177/0741713606294235

Cate, C. A., Lyon, J. S., Schmeling, J., & Bogue, B. Y. (2017). *National Veteran Education Success Tracker: A report on the academic success of student veterans using the Post-9/11 GI Bill*. Washington, DC: Student Veterans of America. Retrieved from http://nvest.studentveterans.org/wp-content/uploads/2017/03/NVEST-Report_FINAL.pdf

Cohen, S. (2004). Social relationships and health. *American Psychologist, 59*(8), 676–685. doi.org/10.1037/0003-066x.59.8.676

Dalack, G. W., et al. (2010). Working together to meet the needs of Army National Guard soldiers: An academic-military partnership. *Psychiatric Services, 61*(11), 1069–1071. doi.org/10.1176/appi.ps.61.11.1069

DiRamio, D., Ackerman, R., & Mitchell, R. L. (2008). From combat to campus: Voices of student-veterans. *Journal of Student Affairs Research and Practice, 45*(1), 73–102. doi.org/10.2202/1949-6605.1908

DiRamio, D., Jarvis, K., Iverson, S., Seher, C., & Anderson, R. (2015). Out from the shadows: Female student veterans and help-seeking. *College Student Journal, 49*(1), 49–68.

Elliott, M., Gonzalez, C., & Larsen, B. (2011). U.S. military veterans transition to college: Combat, PTSD, and alienation on campus. *Journal of Student Affairs Research and Practice, 48*(3), 279–296. doi.org/10.2202/1949-6605.6293

Greden, J. F., Valenstein, M., Spinner, J., Blow, A., Gorman, L. A., Dalack, G. W., Marcus, S., & Kees, M. (2010). Buddy-to-Buddy, a citizen soldier peer support program to counteract stigma, PTSD, depression, and suicide. *Annals of the New York Academy of Sciences, 1208*, 90–97. doi.org/10.1111/j.1749-6632.2010.05719.x

Hausmann, L. M., Schofield, J., & Woods, R. (2007). Sense of belonging as a predictor of intentions to persist among African American and white first-year college students. *Research in Higher Education, 48*(7), 803–839. doi.org/10.1007/s11162-007-9052-9

Institute of Medicine. (2013, March). *Returning home from Iraq and Afghanistan: Assessment of readjustment needs of veterans, service members, and their families.* Washington, DC: The National Academies Press. Retrieved from http://www.nationalacademies.org/hmd/Reports/2013/Returning-Home-from-Iraq-and-Afghanistan.aspx

Kees, M., Risk, B., Meadowbrooke, C., Spinner, J. L., & Valenstein, M. (in press). Navigating success: Peer support for student veterans. In D. DiRamio (Ed.), *What's next for student veterans? Moving from transition to academic success*. Columbia, SC: National Resource Center for the First-Year Experience and Students in Transition.

Kimmel, S. B., Gaylor, K. P., Grubbs, M. R., & Hayes, J. B. (2012). Good times to hard times: An examination of adult learners' enrollment from 2004–2010. *Journal of Behavioral and Applied Management, 14*(1), 18–38. Retrieved from http://search.proquest.com/docview/1082324507?pq-origsite=360link&accountid=14667

Kuh, G. D., Curce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The Journal of Higher Education, 79*(5), 540–563. doi.org/10.1353/jhe.0.0019

McBain, L., Kim, Y. M., Cook, B. J., & Snead, K. M. (2012). *From soldier to student II: Assessing campus programs for veterans and service members.* Washington, DC: American Council on Education. Retrieved from http://www.acenet.edu/news-room/Documents/From-Soldier-to-Student-II-Assessing-Campus-Programs.pdf

Mead, S., Hilton, D., & Curtis, L. (2001). Peer support: A theoretical perspective. *Psychiatric Rehabilitation Journal, 25*(2), 134–141. doi.org/10.1037/h0095032

Nelson, C. B., Abraham, K. M., Walters, H., Pfeiffer, P. N., & Valenstein, M. (2014). Integration of peer support and computer-based CBT for veterans with depression. *Computers in Human Behavior, 31*, 57–64. doi.org/10.1016/j.chb.2013.10.012

Radford, A. W. (2011). *Military service members and veterans: A profile of those enrolled in undergraduate and graduate education in 2007–2008* (Report No. 2000-163). Washington, DC: National Center for Education Statistics. Retrieved from http://nces.ed.gov/pubs2011/2011163.pdf

Rumann, C. B., & Hamrick, F. A. (2010). Student veterans in transition: Re-enrolling after war zone deployments. *The Journal of Higher Education, 81*(4), 431–458. doi.org/10.1353/jhe.0.0103

Shook, J. L., & Keup, J. R. (2012). The benefits of peer leader programs: An overview from the literature. *New Directions for Higher Education*, *157*, 5–16. doi.org/10.1002/he.20002

Solomon, P. (2004). Peer support/peer provided services: Underlying processes, benefits, and critical ingredients. *Psychiatric Rehabilitation Journal, 27*(4), 392–401. doi.org/10.2975/27.2004.392.401

Steele, J. L., Salcedo, N., & Coley, J. (2010). *Service members in school: Military veterans' experiences using the Post-9/11 GI Bill and pursuing postsecondary education.* Santa Monica, CA: RAND Corporation. Retrieved from http://www.rand.org/content/dam/rand/pubs/monographs/2011/RAND_MG1083.pdf

Student Veterans of America. (2017). *Research brief: Profile of the contemporary student veteran*. Washington, DC: Student Veterans of America. Retrieved from http://nvest.studentveterans.org/wp-content/uploads/2017/04/Profiles-of-a-Contemporary-Student-Veteran.pdf

Swenson, L. M., Nordstrom, A., & Hiester, M. (2008). The role of peer relationships in adjustment to college. *Journal of College Student Development, 49*(6), 551–567. doi.org/10.1353/csd.0.0038

Tanielian, T., & Jaycox, L. H. (Eds.) (2008). *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery*. Santa Monica, CA: RAND Corporation. Retrieved from http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG720.pdf

U.S. Department of Veterans Affairs. (2013, November). One million now benefit from Post-9/11 GI Bill [press release]. Office of Public and Intergovernmental Affairs, U.S. Department of Veterans Affairs. Retrieved from http://www.va.gov/opa/pressrel/pressrelease.cfm?id=2490

U.S. Department of Veterans Affairs. (2016, August 8). *VA and the Post 9/11 GI Bill*. Retrieved from www.va.gov/opa/issues/post_911_gibill.asp

U.S. Government Accountability Office. (2013, July). *VA education benefits: Student characteristics and outcomes vary across schools* (Publication No. GAO-13-567). Retrieved from http://www.gao.gov/assets/660/656204.pdf

Whiteman, S. D., Barry, A. E., Mroczek, D. K., & MacDermid Wadsworth, S. (2013). The development and implications of peer emotional support for student service members/veterans and civilian college students. *Journal of Counseling Psychology, 60*(2), 265–278. doi.org/10.1037/a0031650

Zinzow, H. M., Britt, T. W., McFadden, A. C., Burnette, C. M., & Gillispie, S. (2012). Connecting active duty and returning veterans to mental health treatment: Interventions and treatment adaptations that may reduce barriers to care. *Clinical Psychology Review*, 32(8), 741–753. doi.org/10.1016/j.cpr.2012.09.002

Author information

* Michelle Kees, PhD is an Associate Professor in Child and Adolescent Psychiatry at the University of Michigan, has dual Clinical and Research Without Compensation appointments at the Ann Arbor Veterans Affairs Medical Center, and is a lead investigator with Military Support Programs and Networks (M-SPAN). Dr. Kees is the Principal Investigator for PAVE (Peer Advisors for Veteran Education). She is also the Principal Investigator of HomeFront Strong, a resiliency intervention for military spouses and children.

Michelle Kees, PhD
Associate Professor, Department of Psychiatry
Principal Investigator, M-SPAN (Military Support Programs and Networks)
University of Michigan
2025 Traverwood, Suite C
Ann Arbor, MI 48105
Email: mkees@umich.edu
Web: http://m-span.org/

Brittany Risk, LMSW is the Program Manager for PAVE. She coordinates and oversees all aspects of the implementation of the PAVE Program. Prior to her work with M-SPAN, Ms. Risk was a project manager at the Department of Veterans Affairs on grants that focused on veteran mental health, substance abuse, and suicide.

Brittany Risk, LMSW
Program Manager
Peer Advisors for Veteran Education (PAVE)
University of Michigan
2025 Traverwood, Suite C
Ann Arbor, MI 48105
Email: konarzbr@umich.edu
Web: http://paveoncampus.org/

Chrysta Meadowbrooke, MS is the Research Specialist for M-SPAN, working on research and evaluation for PAVE and other military and veteran-focused programs. She has several years of experience on community-based health and clinical projects, performing both qualitative and quantitative data collection and analysis.

Chrysta Meadowbrooke, MS
Research Specialist, M-SPAN (Military Support Programs and Networks)
University of Michigan
2025 Traverwood, Suite C
Ann Arbor, MI 48105
Email: cmeadow@umich.edu
Web: http://m-span.org/

Timothy Nellett, BA is the Program Coordinator for PAVE. He oversees the day-to-day operations of the PAVE Program, such as onboarding and supporting current partner campus. Mr. Nellett served in the United State Marine Corps for four years, deploying to Iraq and Afghanistan with the 1st Battalion 6 Marine Regiment in support of Operations Iraqi Freedom and Enduring Freedom.

Timothy Nellett, BA
Program Coordinator
Peer Advisors for Veteran Education (PAVE)
University of Michigan
2025 Traverwood, Suite C
Ann Arbor, MI 48105
Email: tnellett@umich.edu
Web: http://paveoncampus.org/

Jane Spinner, MSW, MBA is Project Officer for Strategic Initiatives at the University of Michigan Depression Center and Department of Psychiatry. Ms. Spinner oversees the design, development, and implementation of major projects and initiatives that address the mental health needs of special populations, including the portfolio of military and veteran-focused programs at M-SPAN.

Jane Spinner, MSW, MBA
Project Officer for Strategic Initiatives
Project Director, M-SPAN (Military Support Programs and Networks)
University of Michigan
2025 Traverwood, Suite C
Ann Arbor, MI 48105
Email: jspinner@umich.edu
Web: http://m-span.org/

*Corresponding author

Peer mentoring for undergraduates in a research-focused diversity initiative

Thomas E. Keller, Kay Logan, Jennifer Lindwall, and Caitlyn Beals

Abstract

To provide multi-dimensional support for undergraduates from traditionally underrepresented backgrounds who aspire to careers in research, the BUILD EXITO project, part of a major NIH-funded diversity initiative, matches each scholar with three mentors: peer mentor (advanced student), career mentor (faculty adviser), and research mentor (research project supervisor). After describing the aims of the diversity initiative, the institutional context of the BUILD EXITO project, and the training program model, this article devotes special attention to the rationale for and implementation of the peer mentoring component within the context of the multi-faceted mentoring model.

Keywords

Peer mentoring, diversity, research training

Introduction

Building University Infrastructure Leading to Diversity (BUILD) is an NIH-sponsored initiative to promote innovative approaches to research training for undergraduates from backgrounds traditionally underrepresented in the biomedical and behavioral sciences. The ultimate goal is for these students to diversify the NIH-funded research workforce of the future (Valantine & Collins, 2015). Mounting evidence suggests the importance of diverse perspectives for enhancing the quality of research, improving the provision of health care, and addressing pervasive health disparities (McGee, Saran & Krulwich, 2012; Mitchell & Lassiter, 2006; Valantine & Collins, 2015). Although NIH has a long history of supporting research and training programs for researchers of diverse backgrounds, scholars receiving major NIH research grants still are not representative of the general population (Ginther et al., 2011). The BUILD initiative addresses this challenge by not only supporting student trainees but also developing faculty capacity and institutional infrastructure to "transform the culture and efficacy of biomedical research training and mentoring" (Enhancing the diversity of the NIH-funded workforce, 2016). The BUILD initiative focuses on primarily undergraduate institutions (including several metropolitan universities) that fit a specific eligibility profile. First, these universities serve relatively high proportions of undergraduates from traditionally underrepresented populations, including racial and ethnic minority students, students with disabilities, and students with histories of severe social and economic disadvantage. Second, these universities have limited NIH funding but show the potential to develop greater research capacity. Finally, these universities do not include medical schools but have established partnerships with research-intensive medical centers. Ten institutions meeting these criteria have been awarded BUILD funding to develop and implement sustainable strategies to foster student engagement and

persistence in the biomedical and behavior sciences. An expectation of NIH is that the funded programs employ approaches shown to influence students in pursuing science career trajectories, such as incorporating research inquiry into coursework (Bangera & Brownell, 2014; Weaver, Russell & Wink, 2008), providing meaningful undergraduate research experiences (Hunter, Laursen & Seymour, 2007; Lopatto, 2007; Russell, Hancock, & McCullough, 2007) and supporting students through quality mentoring (Wilson et al., 2012; Zaniewski & Reinholz, 2016). Thus, BUILD faculty development efforts generally aim to support pedagogical innovation to bring lab and field work into courses, increase opportunities for faculty to engage in and publish biomedical research, and provide coaching on the effective mentoring of undergraduate students.

The BUILD initiative is one component of NIH's larger Enhancing Diversity in the NIH-Funded Workforce consortium focusing on scientifically driven approaches to fostering diversity (Valantine & Collins, 2015). The consortium also includes the National Research Mentoring Network (NRMN), created "to develop best practices for mentoring, provide training opportunities for mentors, and provide networking and professional opportunities for mentees" (DHHS, 2013, p. 4). NRMN provides consultation, curricula, and training to augment the mentoring programs offered by the BUILD program sites. Another organization, the Coordination and Evaluation Center (CEC) at UCLA, was established to provide operational and data coordination and support for the consortium, and to conduct a longitudinal evaluation of the BUILD and NMRN programs. Its goal is to promote a collaborative environment across BUILD sites, NMRN, and NIH and to work closely with BUILD leadership to ensure successful completion of all consortium objectives (Coordination & Evaluation Center at UCLA, n.d.). To facilitate flexibility and adaptation, BUILD awards are actually cooperative agreements that call for frequent interaction with NIH program officers in the administration of three separate but interlocking funding mechanisms supporting: (a) student trainee financial packages (stipend and tuition remission); (b) research enrichment activities for students; and (c) institutional and faculty development initiatives. As a Common Fund initiative from the NIH Director's office, the BUILD awards support the training of biomedical, behavioral, social, clinical, and translational researchers across a range of disciplines and topics as broad as those funded by all NIH branches.

BUILD EXITO program

One of the BUILD grantees is the EXITO project (see Richardson et al., 2016). EXITO means "success" in Spanish and stands for Enhancing Cross-disciplinary Infrastructure and Training at Oregon. The BUILD EXITO project represents a partnership of eleven institutions in geographically diverse locations. The primary grantee is Portland State University (PSU), a major public urban university with a historic emphasis on accessibility and the largest and most diverse student enrollment in the state of Oregon. The research-intensive partner is Oregon Health & Science University (OHSU), a comprehensive academic health center located just miles from PSU that features patient care, medical education, and an extensive world-class research portfolio. To provide integrated educational pathways for students, the BUILD EXITO network also incorporates four community colleges that contribute a large number of transfer students to PSU. These are Chemeketa Community College (Salem, OR), Clackamas Community College (Oregon City, OR), Clark College (Vancouver, WA), and Portland

Community College (Portland, OR). In addition, BUILD EXITO includes several 2-year and 4-year institutional partners that span the Pacific Rim region: American Samoa Community College, Northern Marianas College, University of Alaska Anchorage, University of Hawaii, and University of Guam.

The institutional home for BUILD EXITO at PSU is the Center for Interdisciplinary Mentoring Research (CIMR), a university-level center under the auspices of the Office of Research and Strategic Partnerships. CIMR was established in 2010 with seed funding from the Provost awarded through a campus-wide RFP designed to identify a cross-disciplinary theme that could organize existing faculty strengths to pursue external funding. CIMR addresses mentoring across the lifespan via innovative and rigorous research, education and knowledge transfer, and partnerships with organizations providing services. The university investment in CIMR provided the existing faculty network, staffing, and infrastructure to facilitate an application to NIH for a BUILD planning grant. A core team of four CIMR faculty and staff submitted the planning grant proposal. This team consisted of: 1) the Director of the PSU School of Community Health and Director of an NIH-sponsored Bridges to Baccalaureate training grant, who identified the RFA and became the Principal Investigator; 2) a Professor in the PSU School of Social Work and Director of CIMR; 3) the Chair of Bioinformatics, Assistant Dean for Admissions in the Medical School, and Director of Education and Career Development for the Oregon Clinical and Translational Institute at OHSU; and 4) the Center Coordinator for CIMR. Receipt of the six-month planning grant permitted this team to develop and refine the program model, recruit collaborating colleagues in additional fields, identify and reach out to prospective partner institutions, and prepare the extremely lengthy proposal that ultimately resulted in the $23.7M, 5-year BUILD award.

The scholar training model for the BUILD EXITO program offers an integrated set of experiences along a pathway leading to graduate education and careers in research. Employing a cohort-building approach, groups of eligible students are recruited and selected through a competitive application process during the spring of their first year in college and continue in the program through graduation with a bachelor's degree (either transferring from 2-year partner institutions to PSU or maintaining enrollment at original 4-year partner institution). In addition to providing opportunities for learning the concepts and developing the skills necessary to become a scientist, the program addresses the multiple psychological, social, cultural, and financial factors that often pose barriers for students from traditionally underrepresented backgrounds pursuing biomedical majors (Gazley et al., 2014; Hurtado et al., 2007).

For example, evidence suggests that academic persistence and success for underrepresented minority students in science is associated with overcoming prejudice and stereotype threat, developing an identity as a scientist, developing a sense of science self-efficacy, having peer social support, and engaging in campus activities and opportunities (Chang, Sharkness, Hurtado & Newman, 2014; Chemers et al., 2011; Syed, Azimitia & Cooper, 2011). Consequently, the BUILD EXITO scholar training program focuses on four domains to provide holistic developmental support and promote successful preparation for post-graduate education: (a) supportive environment; (b) enhanced curriculum;(c) research experience; and (d) multi-faceted mentoring.

Supportive Environment. As a model demonstration program, BUILD EXITO works to transform systems within and across partner institutions to better address the personal, social, academic, and financial needs of all students, particularly those who have traditionally encountered institutional barriers. For students selected into the program (referred to as EXITO scholars), the program fosters a supportive community of scholars and provides numerous supports at the individual level. The program begins with participating scholars from all partner institutions attending a weeklong orientation at PSU that features a series of activities and events designed to explore and define research interests and build a sense of camaraderie within the cohort. During the academic year, scholars participate in weekly enrichment sessions that cover a range of topics relating to academic success and career development but also provide opportunities for socializing. The EXITO Center at PSU provides an on-campus "home base" for the program and serves as a hub connecting scholars to project staff and advisors, various resources, opportunities to work with peers, and other activities and events that support learning and foster a sense of shared purpose and community. Scholars also are connected with a variety of campus opportunities and services, including research fairs, student groups, cultural centers, tutoring services, and numerous other resources. In addition, EXITO scholars get to work one-to-one with an EXITO-specific academic advisor and financial aid advisor who have a special understanding of program expectations and opportunities. Finally, it is worth noting that the resources available through the BUILD award permit compensation packages for scholars for time spent in EXITO training activities.

Enhanced Curriculum. The BUILD EXITO program features several curricular enhancements to support the development of undergraduates as researchers. BUILD EXITO curriculum development staff work with faculty at each partner institution to support inquiry-based teaching approaches. This joint effort incorporates research projects into selected first year courses to inspire interest in science. After being selected for the program, EXITO scholars take a required gateway course that addresses research methods and the responsible conduct of research. EXITO scholars also participate in summer intensive research experiences with workshop curriculum that sharpens their research skills. In their senior year, EXITO scholars are expected to complete a student-initiated capstone research project or thesis project. In addition, as noted above, EXITO scholars participate in regular enrichment workshops and training seminars throughout their time in the program. BUILD EXITO also works with schools and departments with relevant majors, such as biology, chemistry, psychology, social work, and community health, to support scholars in these disciplines, with a special emphasis on making sure credits and content align for EXITO scholars transferring from partner institutions.

Research Experience. A centerpiece of the BUILD EXITO program is the opportunity for scholars to gain research experience as contributing members of Research Learning Communities (RLCs), headed by leading researchers. EXITO RLCs engage undergraduate students in meaningful research activities on externally-funded, faculty-directed studies across a range of health-related fields (e.g., biomedical, behavioral, social, clinical, and translational research). Though RLCs vary in structure and composition, a typical example includes one or more established principal investigators who have participated in major federal studies and have collaborates with other colleagues, such as faculty co-investigators, fellows, post-docs, and graduate students. EXITO scholars are embedded within these mentor-rich communities in paid internship placements to work as part of the research team. During the summer and academic

year, scholars spend concentrated time working to observe, learn, and contribute to important research projects while in their RLCs.

Multi-faceted Mentoring. BUILD EXITO offers each scholar a convoy of support along the pathway to success. A team of mentors strives to meet the multi-dimensional needs of students from traditionally underrepresented backgrounds embarking on a demanding research-oriented career trajectory. There are three distinct mentoring roles in the BUILD EXITO model, and each reflects a different perspective, has a different set of priorities, and offers a different mix of skills and support. Career mentors are faculty members who offer advice on academic and career planning and goal setting. Peer mentors are advanced students who facilitate connections to campus and help scholars to navigate the student experience. Research mentors work with scholars within their RLC's to teach them skills, supervise their work, and provide feedback about continued growth and development. These mentors are integrated into the student experience at developmentally appropriate stages and provide crucial support on a successful pathway to research. A rationale for this mentoring model and an examination of the special role of peer mentors are presented below.

Rationale for multi-faceted mentoring model

For EXITO scholars to pursue post-graduate education and become biomedical researchers, they must attain their undergraduate degrees and prepare for future research opportunities. Therefore, the BUILD EXITO program focuses both on educational persistence and on research preparedness. Conceptual models of student persistence and success emphasize the importance of academic integration (adapting to educational environment) and social integration (engaging with others) in student college experiences (Kuh et al., 2006; Reason, 2009). Similarly, research preparedness develops through research integration (participating in research experiences) (Shaw, Holbrook & Bourke, 2013). Accordingly, the BUILD EXITO program matches each scholar with a set of three mentors who can provide support and guidance in the academic, psycho-social, and research domains by virtue of their roles as faculty, peers, and researchers.

A multi-faceted mentoring model increases the chances of addressing the various factors associated with the success of EXITO scholars. The scholars resemble most undergraduates in having multi-dimensional needs for support, including psychological and emotional support, assistance acquiring academic subject knowledge, guidance on goal-setting and career paths (Nora & Crisp, 2007). According to Wallace, Abel, and Ropers-Huilman (2000), students benefit from more than one mentor with whom to share their social, cultural, and academic concerns. In similar circumstances, graduate research trainees and early career academics seek out multiple sources of mentoring to meet their distinct functional needs for support (de Janasz & Sullivan, 2004; Keller et al., 2014). Research from a variety of career settings indicates that having a larger and more diverse constellations of developmental mentoring relationships is associated with greater career satisfaction and success (Higgins & Thomas, 2001; Packard, Walsh & Seidenberg, 2004; van Emmerik, 2004). Furthermore, gaining experience with multiple mentors and colleagues can be particularly helpful as team science is increasingly emphasized in research (Guise, Geller, Regensteiner, & Raymond, 2016).

In the BUILD EXITO model, faculty who serve as career mentors are encouraged to adopt a student-focused orientation. In the process, they establish a relationship characterized by a strong connection, authenticity, commitment, and genuine concern for the scholar (Schreiner, Noel, Anderson, & Cantwell, 2011). Based on understandings gained through the relationship, the nature of mentoring activities, conversations, and assistance can be determined by the circumstances, interests, and goals of the scholar. The mentor can offer a faculty perspective on a range of topics. Most are academic, such as advising about courses and majors, discussing career options, identifying scholarships, or strategizing about study skills. Others could be social, such as resolving roommate conflicts, addressing work-school-family balance, handling a personal crisis, or planning for school breaks (e.g., Kendricks, Nedunuri, & Arment, 2013). Faculty-student mentoring with this type of multi-purpose orientation has been shown to have positive effects on GPA, credits earned, and retention (Campbell & Campbell, 1997).

Each EXITO scholar is assigned a primary research mentor when placed in a Research Learning Community. Mentors have been identified as crucial in the success of undergraduate research experiences (Linn, Palmer, Baranger, Gerard & Stone, 2015). Research mentors provide direct supervision and guidance as EXITO scholars gain first-hand knowledge about designing, conducting, and communicating the research of the RLC. Compared to the student-oriented focus of career mentoring, research mentoring is project-oriented, placing priority on completing tasks necessary for conducting the research. In this respect, the mentoring reflects an apprenticeship in which the mentor instructs the scholar on research protocols and procedures, initially providing clear expectations, guidelines, and orientation to the project. Then, at a later stage, the mentor helps the scholar develop the traits, habits, and perspectives of a scientific researcher (Thiry & Laursen, 2011). Through frequent contact and joint work on the project, research mentors also help scholars to gain confidence in their research skills and develop a science identity by observing and exploring different research roles (Shanahan, Ackley-Holbrook, Hall, Stewart & Walkington, 2015).

EXITO peer mentors are advanced undergraduate students, typically seniors, who provide personal support and serve as guides to student life and academic success (e.g., Zaniewski & Reinholz, 2016). Peer mentors facilitate social integration by helping EXITO scholars connect to campus cultural activities, groups, and programs as well as navigate university services such as housing, financial aid, and recreation. In addition, the peer mentors share personal insights and counsel scholars on how to take best advantage of EXITO courses, resources, and research experiences. The BUILD EXITO peer mentoring program employs a "near-peer" approach, in which a student is matched with a mentor who shares a similar background but already has navigated a pathway to the type of success desired by the mentee (Terrion & Leonard, 2007). Such a mentor is likely to have strong credibility with the scholar (Hill & Reddy, 2007). As a role model, the peer mentor provides a concrete example that someone from a similar background can achieve what the scholar aspires to do (Wallace, Abel & Ropers-Huilman, 2000).

EXITO peer mentor expectations

Although peer mentors in the BUILD EXITO program are intended to provide psychosocial support and foster social integration in the academic setting, the role is nevertheless multi-dimensional and responsive to the circumstances of the scholars. Mentoring centers on a personal relationship and to a certain extent is determined by the needs and interests of the individuals

involved. For example, research suggests that peer mentors can adopt several different roles, such as coach, advocate, liaison, or friend (Colvin & Ashman, 2010). Taking a holistic approach in providing support, peer mentors can promote mentee growth in multiple domains, including academic skills, career decision-making, connectedness, maturity, health and well-being, and aspirations (Ward, Thomas & Disch, 2012). Concretely, peer mentors have been shown to help mentees with coursework, organization and time management, campus resources, social issues, stress, and finding employment (Zaniewski & Reinholz, 2016).

In the BUILD EXITO program, the initial training for peer mentors explicitly notes certain domains in which they might assist their scholars. A listing of these domains with examples of mentoring activities within each was prepared for the initial peer mentor training. Prior to sharing the list, peer mentors did a training activity that involved generating their own ideas about ways in which they might support EXITO scholars. These two lists, presented side-by-side in Table 1, provide a good indication of the expectations for EXITO peer mentors.

Table 1.
Activity Domains for Peer Mentoring

Developed by program staff	Developed by peer mentors
Substantive Interests Discussing research interests, projects, and findings Talking about disciplines, majors, and/or courses Networking with researchers and prospective mentors Discussing professional societies and conferences	Substantive Interests New ideas and avenues for exploration Helping find a field that matches research interests Research topics
General Knowledge and Skills Working on writing and communication skills Helping with proposals and/or manuscripts Discussing study habits Building confidence in research skills and abilities	General Knowledge and Skills Helping with time management Helping with prioritizing Advising on posters and presentations Helping students learn "strategic sharing" Learning how to approach faculty Forming an academic strategy (e.g., study plans) Advising on what to do if you don't like a class Helping when scholars don't know how to communicate with faculty or research mentors Modeling self-advocacy
Student Life (Opportunities, Support, Problem-Solving) Connecting with campus services and resources Problem-solving practical issues (e.g. registration, financial aid, transportation) Discussing balance between school, work, and family	Education/Career Development Helping mentees who are first generation to explain research pathways to parents Thinking outside of the box – realizing other options Having 2nd thoughts about major

	Student Life (Opportunities, Support, Problem-Solving)
Discussing experiences related to personal background/history (e.g., gender, race, first generation)	Helping with work/school/personal life balance Presence! Just being there and available to talk
Consulting about difficulties with courses, instructors, employers, mentors, etc.	Offering practical advice for dealing with obstacles or frustrations
Talking about social/recreational opportunities on campus (e.g., clubs, sports)	Being a friendly familiar face
Discussing community engagement and service opportunities	Being a confidant
	Facilitating problem-solving or finding guidance
	Being a willing advocate
	Helping with boundaries and when to say no
	Recognizing diversity and differences
	Guiding students to opportunities
	Providing information about jobs
	Helping cope with set-backs or rejection when applying for scholarships or opportunities
	Helping overcome fear and anxiety over academic situations
	Supporting with self-care
	Connecting with resources on campus
	Offering encouragement
	Getting to campus (travel issues)
	Finding extracurricular activities
	Being a friend!

Implementation of peer mentoring component

Implementation of the BUILD EXITO peer mentoring model is based on recommended practices for program operations (Collier, 2015). The core elements of the program—recruiting, hiring, training, matching, supervising and monitoring of mentors—are described briefly below, with specific references to activities in the first year of the project. Strategies for the ongoing evaluation of the program also are noted.

Recruiting mentors. Several priorities were established for the selection of EXITO peer mentors, including a preference for backgrounds and experiences aligning with program goals as well as personal qualities generally associated with successful mentoring (Terrion & Leonard, 2007). In the first year of the program, we sought advanced and academically successful students (seniors) from diverse backgrounds who had experience in research settings. We also wanted mentors who could interact with scholars in an engaging, positive, and supportive manner. Given this particular profile, we focused recruitment efforts on attracting applicants from other programs promoting science equity and inclusion for traditionally underrepresented students (e.g., McNair Scholars, Louis Stokes Alliance for Minority Participation, Bridges to Baccalaureate). We also

conducted outreach through PSU's Multicultural Student Services, posted to listservs and social media, and sent personalized emails to students recommended by faculty. We also used a mailing list of students that had contacted BUILD EXITO and expressed interest in participating in the program but were ineligible due to their more advanced status.

Hiring mentors. Peer mentor applicants completed an online application that included questions about educational background, transfer student experience, research experience, prior mentoring and advising, leadership, and academic honors. Applicants completed three short (300 word) essays on (a) academic and career goals related to interest in biomedical, behavioral or social science research career pathways; (b) ways in which their own personal histories prepared them to support students from diverse and underrepresented backgrounds; and (c) what skills and qualities they possessed that would help them be successful in the role of a mentor for BUILD EXITO. Applicants also provided a letter of recommendation and a transcript. We received 25 applications, and 19 were selected for 20 minute interviews that included questions on motivations to be a mentor, experience with research, skills for successful mentoring, and experience helping other students. We also asked applicants to describe how they had "bounced back" from a setback, learned from a mistake, and dealt with overcommitting. Using a scoring rubric for the application and interview, we hired 15 peer mentors as hourly student employees. Each peer mentor was expected to work 10 hours per week during the academic year.

Training mentors. The new peer mentors received 8.5 hours of pre-match training, divided into three sessions. Training included the following topics: EXITO project overview; overview of the EXITO mentoring program; mentor policies and guidelines; introduction to the EXITO Mentoring Support Network (EMSN); mentoring roles; aligning expectations; effective communication; career directions; and ethical situations. Peer mentors who were unable to attend the trainings due to class scheduling conflicts received one-on-one training. Training materials for peer mentors were adapted from a widely used curriculum, designed for training academic research mentors of undergraduates in STEM and biomedical disciplines, entitled *Entering Mentoring* (Pfund, Branchaw & Handelsman, 2015). Three members of the BUILD EXITO leadership team attended a train-the-trainer workshop through the National Research Mentoring Network (NRMN) to prepare them to use the training curriculum. In addition to the *Entering Mentoring* Curriculum, training activities on responding to difficult mentoring situations were adapted from the PSU University Studies Peer Mentoring program. After matching, additional training consisted of a two-hour session during spring term of the academic year. This training included debriefing mentoring successes and challenges as well as preparation of mentors to have an end-of-year conversation with each of their mentees. In subsequent years of the project, we also elicited their suggestions for improving the program and modifying the mentoring model, so that EXITO scholars eventually could serve as peer mentors to incoming cohorts.

Matching mentors. Each peer mentor was matched with between three and five EXITO scholars. Peer mentors from PSU were matched with scholars from PSU and from the partnering community colleges; the other 4-year partner institutions hired and matched peer mentors for their own campuses. Matching was based on several factors, including academic discipline, research interests, and transfer student experience. In addition, at PSU, we held a "speed" acquaintance event, in which pairs of peer mentors and scholars had 5 minutes to speak one-to-

one, with everyone rotating through 5 different pairings. At the end of the event, we asked participants to indicate three mentors/scholars they particularly enjoyed meeting.

Supervising mentors. The EXITO mentoring coordinator supervised peer mentors. As a baseline, peer mentors were expected to meet at least every other week one-to-one with each of their scholars. Contacts with scholars at partner campuses could occur via videoconferencing, phone or email. Although not required, a strategy that proved very effective with several peer mentors was emailing scholars weekly. Peer mentors also were encouraged to participate in EXITO scholar enrichment activities offered regularly throughout the academic year. In addition, peer mentors assisted with other program functions that involved student contact, such as outreach and recruitment activities. In particular, peer mentors contacted students who had started but not finished applications to provide individual encouragement and coaching on completing the application process (e.g., Castleman & Page, 2015).

Monitoring matches. A central tenet of the BUILD EXITO mentoring program is that making good matches is not sufficient; each mentoring relationship should have ongoing monitoring and support from the professional program coordinator (Keller, Logan, Zell, Lindwall, Beals, 2016). An innovative online platform, the EXITO Mentoring Support Network (EMSN), supported by *America Learns*, is used for maintaining regular communication with all mentors and scholars in the program. Each participant has an individual ESMN account with an associated profile that contains relevant characteristics, such as personal demographics, program status, institutional affiliation, and academic discipline. The profile also identifies each mentor matched to a particular scholar, and vice versa (e.g., a mentor may have multiple scholars). On a monthly basis, each participant (both mentor and scholar) receives a scheduled email prompt to enter the EMSN system. On the landing page, the participant sees general program announcements and news updates. After logging in, the participant responds to a set of questions about each mentoring relationship. Certain consistent questions elicit basic tracking information about the nature and development of the mentoring relationship, such as the amount of hours of contact, the types of mentoring activities, and the quality of the relationship. Other questions can be customized to obtain specific information about the mentoring relationship or topics relevant for program improvement. Use of the EMSN system is an efficient means of tracking and monitoring the large number of EXITO mentoring relationships across multiple, widely dispersed institutions. The questions are designed to generate information about whether particular relationships are positive and productive or whether they are struggling and need support. EMSN allows the mentoring program coordinator to view and respond directly back to comments and questions noted in participant logs. Thus, it is easy for the program coordinator to suggest strategies and solutions and provide ongoing encouragement, advice, and guidance as needed. In addition, each account compiles a cumulative record of completed logs, so participants have access to a historical record of their relationships.

Closing matches. In spring term of the academic year, peer mentors were trained on match closure procedures and were provided with an "End of Year Conversation Guide." Goals for the end-of-year mentoring conversation were to: (a) celebrate the relationship; (b) reflect on what did and did not go well; (c) work with the scholar to help prepare them to get the most out of their future mentoring relationships; and (d) to discuss expectations for the future after the closure of the formal peer mentoring relationship. The guide included a number of reflection

questions designed for both the peer mentor and the scholar to complete prior to their final meeting.

Evaluating the program. The BUILD EXITO mentoring program is subject to extensive evaluation. Each BUILD site participates in the cross-site, consortium-wide evaluation conducted by the UCLA Coordination and Evaluation Center and also carries out a site-specific evaluation. All evaluation activities are designed to: (a) measure the success of EXITO in meeting BUILD hallmarks for success; (b) engage EXITO faculty and staff in ongoing process improvement; and (c) contribute to knowledge on initiatives that further the success of underrepresented students in biomedical fields. A mixed-methods approach involves use of surveys, interviews, and institutional records to obtain data regarding the experience of scholars and mentors.

With respect to the mentoring program, the regular and customized EMSN log questions permit the identification of participant needs, relationship trends, and program issues. Specifically, both mentors and scholars report on their amount of contact, the nature of their activities, and the quality of their communication, use of time, and overall relationship. The profiles make it possible to compile and analyze the data in the aggregate or for specific subgroups to yield program insights. Thus, the mentoring program gains valuable real-time feedback that can be used to address emerging concerns or to promote quality improvement.

In addition, the EMSN system is useful for required program evaluation and reporting purposes. Data from the logs is consistent and centralized. Thus, it can be used to verify and summarize the nature and extent of mentoring activities across the multiple institutional sites. Again, the profiles permit comparisons and analyses based on a variety of relevant personal characteristics and program factors. The site-specific evaluation includes a quasi-experimental design to compare EXITO program scholars to other students on dimensions such as academic performance, self-efficacy, science identity, research productivity, and educational plans. The annual scholar assessment for the evaluation also includes established measures of mentoring relationship quality. Finally, to gain additional insights about the peer mentoring component of the program, several focus groups have been conducted with peer mentors and scholars.

Peer mentor program challenges and changes

Challenges. As intended, EMSN logs, focus groups, interviews, and staff observations generated a wealth of feedback regarding the first year of BUILD EXITO peer mentoring program implementation. Overall, peer mentors and scholars tended to report positive mentoring interactions and valued their participation in the program. However, several important challenges were identified, and these are noted briefly below.
- It was difficult for a single mentoring coordinator with multiple program responsibilities to train and supervise such a large number of peer mentors.
- Peer mentors and scholars often had difficulties arranging meetings and reported that trying to schedule their contacts was time-consuming and frustrating.
- Cross-institutional mentoring relationships (i.e., peer mentor and scholar at different institutions), particularly those over great distances, had problems connecting due to

communications challenges (e.g., different time zones, unreliable internet) and the inability to meet in person.

- Because BUILD EXITO was a new program and many components were just being solidified, including the curriculum and the sequence of milestones and expectations for scholars, peer mentors struggled with understanding program features and meshing their role with the program.
- The three-mentor model created some confusion regarding the specific role and purpose of the peer mentor and raised the possibility of overlap across mentoring relationships.
- Scholars sometimes felt overtaxed in trying to keep appointments and maintain relationships with three mentors.

Changes. Entering the second year of program implementation, several modifications were made to the peer mentoring component of the BUILD EXITO program to address the challenges identified and to accommodate a new and larger cohort of scholars. The most significant change was to integrate the peer mentoring with the weekly enrichment workshops for EXITO scholars. Peer mentors now work closely with a faculty member to organize and deliver the workshop sessions, which all scholars are expected to attend at a consistent time every week in the EXITO Center. This approach has some distinct advantages.

For example, mentors can count on having regular contact with their scholars without needing to spend time arranging appointments. In addition, peer mentors have a more clearly defined role through their involvement with the workshop content. With the structure provided by the workshop, they can bring their student perspective to the topics presented and then continue the conversations and activities with their mentees after the sessions. For scholars, too, the mentoring relationship is built in the context of an activity they already would be doing, so it doesn't seem like extra time is required for "one more" mentoring relationship. Given that much of the mentoring now occurs in this routine group structure, each mentor is matched to a larger number of scholars (10-12). As a result, fewer peer mentors were hired and the supervisory burden was reduced.

Each peer mentor has half of their scholars at PSU, and the other half at one of the community colleges. Matches were made at the time of the scholar orientation, so the mentoring relationship could begin to develop over the summer. In addition, scholars from partner community colleges (including American Samoa and Northern Mariana) were able to meet their mentors in person at the orientation. In the new framework, peer mentors are still expected to have individual, one-to-one contact with their scholars a few times each term in addition to weekly check-ins by email or text message.

Conclusion

Undergraduates from backgrounds traditionally underrepresented in higher education can benefit from a convoy of support on the challenging pathway to become a scientist (De Janasz & Sullivan, 2004). Multiple domains of support can be provided through formal mentoring relationships (Nora & Crisp, 2007). Near-peer mentors can make several distinctive contributions by serving as role models, connecting students to campus life, and sharing the lessons they have learned traveling the same pathway (Hill & Reddy, 2007; Wallace, Abel & Ropers-Huilman, 2000; Ward, Thomas & Disch, 2012; Zaniewski & Reinholz, 2016). For this reason, the BUILD EXITO project intentionally incorporates peer mentoring into its multiple-

mentor program model. BUILD EXITO peer mentoring serves as an example for implementation of recommended and innovative program practices. The rigorous evaluation of the mentoring program currently underway has the potential to yield valuable insights for programs supporting diversity in the sciences.

References

Bangera, G., & Brownell, S. E. (2014). Course-based undergraduate research experiences can make scientific research more inclusive. *CBE-Life Sciences Education, 13*(4), 602-606. doi.org/10.1187/cbe.14-06-0099

Building Infrastructure Leading to Diversity (BUILD) Initiative (2016, April 15). Retrieved from www.nigms.nih.gov/training/dpc/pages/build.aspx

Campbell, T. A., & Campbell, D. E. (1997). Faculty/student mentor program: Effects on academic performance and retention. *Research in Higher Education, 38*(6), 727-742. doi.org/10.1023/A:1024911904627

Castleman, B. L., & Page, L. C. (2014). Summer nudging: Can personalized text messages and peer mentor outreach increase college going among low-income high school graduates? *Journal of Economic Behavior & Organization, 115,* 144-160. doi.org/10.1016/j.jebo.2014.12.008

Chang, M. J., Sharkness, J., Hurtado, S., & Newman, C. B. (2014). What matters in college for retaining aspiring scientists and engineers from underrepresented racial groups. *Journal of Research in Science Teaching, 51*(5), 555-580. doi.org/10.1002/tea.21146

Chemers, M. M., Zurbriggen, E. L., Syed, M., Goza, B. K., & Bearman, S. (2011). The role of efficacy and identity in science career commitment among underrepresented minority students. *Journal of Social Issues, 67*(3), 469-491. doi.org/10.1111/j.1540-4560.2011.01710.x

Collier, P. J. (2015). *Developing effective student peer mentoring programs: A practitioner's guide to program design, delivery, evaluation, and training.* Sterling, VA: Stylus Publishing.

De Janasz, S. C., & Sullivan, S. E. (2004). Multiple mentoring in academe: Developing the professorial network. *Journal of Vocational Behavior, 64*, 263-283. doi.org/10.1016/j.jvb.2002.07.001

Department of Health and Human Services (2013, December 19). RFA-RM-13-016: NIH Building Infrastructure Leading to Diversity (BUILD) Initiative (U54). Retrieved from: http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-13-016.html

Enhancing the diversity of the NIH-funded workforce (2016, July 26). Retrieved from: www.nigms.nih.gov/training/dpc/Pages/default.aspx

Gazley, J. L., Remich, R., Naffziger-Hirsch, M. E., Keller, J., Campbell, P. B., & McGee, R. (2014). *Journal of Research in Science Teaching, 51*(8), 1021-1048. doi.org/10.1002/tea.21164

Ginther, D. K., Schaffer, W. T., Schnell, J., Masimore, B., Liu, F., Haak, L. L., & Kington, R. (2011). Race, ethnicity, and NIH research awards. *Science, 333*(6045), 1015-1019. doi.org/10.1126/science.1196783

Guise, J. M., Geller, S., Regensteiner, J. G., Raymond, N., & Nagel, J. (2016). Team mentoring for interdisciplinary team science: Lessons from K12 scholars and directors. *Academic Medicine*, 92(2), 214-221.

Higgins, M. C., & Thomas, D. A. (2001). Constellations and careers: Toward understanding the effects of multiple developmental relationships. *Journal of Organizational Behavior, 22*, 223-247. doi.org/10.1002/job.66

Hill, R., & Reddy, P. (2007). Undergraduate peer mentoring: An investigation into processes, activities and outcomes. *Psychology Learning and Teaching, 6,* 98-103. doi.org/10.2304/plat.2007.6.2.98

Hunter, A., Laursen, S. L., Seymour, E. (2007). Becoming a scientist: The role of undergraduate research in students' cognitive, personal, and professional development. *Science Education, 91*(1), 36-74. doi.org/10.1002/sce.20173

Hurtado, S., Han, J. C., Saenz, V. B., Espinosa, L. L., Cabrera, N. L., & Cerna, O. S. (2007). Predicting the transition and adjustment to college: Biomedical and behavioral science aspirants' and minority students' first year of college. *Research in Higher Education*, *48*(7), 841-887. doi.org/10.1007/s11162-007-9051-x

Keller, T. E., Collier, P. J., Blakeslee, J. E., Logan, K., McCracken, K., & Morris, C. (2014). Early career mentoring for translational researchers: Mentee perspectives on challenges and issues. *Teaching and Learning in Medicine: An International Journal, 26*(3), 211-216. doi.org/10.1080/10401334.2014.883983

Keller, T. E., Logan, K., Zell, A., Lindwall, J., & Beals, C. (2016). Monitoring and supporting a multi-faceted, multi-institutional student mentoring program*.* In Dominquez, N. & Gandert, Y. (Eds.) *9th Annual Mentoring Conference Proceedings: Developmental Networks—The Power of Mentoring and Coaching*. Albuquerque, NM: University of New Mexico.

Kendricks, K. D., Nedunuri, K. V., & Arment, A. R. (2013). Minority student perceptions of the impact of mentoring to enhance academic performance in STEM disciplines. *Journal of STEM Education: Innovations and Research, 14*(2), 38-46. Retrieved from http://jstem.org/index.php?journal=JSTEM

Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). *What matters to student success: A review of the literature.* Washington, D.C.: National Postsecondary Education Cooperative of National Center for Education Statistics Institute of Education Sciences. Retrieved from nces.ed.gov/npec/pdf/Kuh_Team_Report.pdf

Linn, M. C., Palmer, E., Baranger, A., Gerard, E., & Stone, E. (2015). Undergraduate research experiences: Impacts and opportunities. *Science, 347*(6222), 1261757. doi.org/10.1126/science.1261757

Lopatto, D. (2007). Undergraduate research experiences support science career decisions and active learning. *CBE-Life Sciences Education*, *6*(4), 297-306. doi.org/10.1187/cbe.07-06-0039

McGee, R., Saran, S., & Krulwich, T. A. (2012). Diversity in the biomedical research workforce: Developing talent. *Mount Sinai Journal of Medicine, 79*(3), 397-411. doi.org/10.1002/msj.21310

Mitchell, D. A, & Lassiter, S. A. (2006). Addressing health care disparities and increasing workforce diversity: The next step for the dental, medical, and public health professions. *American Journal of Public Health, 96* (12), 2093–2097. doi.org/10.2105/AJPH.2005.082818

Nora, A., & Crisp, G. (2007). Mentoring students: Conceptualizing and validating the multi-dimensions of a support system. *Journal of College Student Retention, 9*(3), 337-356. doi.org/10.2190/CS.9.3.e

Packard, B. W., Walsh, L., & Seidenberg, S. (2004). Will that be one mentor or two? A cross-sectional study of women's mentoring during college. *Mentoring and Tutoring: Partnership in Learning, 12*(1), 71-85. doi.org/10.1080/1361126042000183039

Pfund C, Branchaw, J., & Handelsman, J. (2015). *Entering Mentoring Version 2*. New York, NY: W.H. Freeman & Co.

Reason, R. D. (2009). An examination of persistence research through the lens of a comprehensive conceptual framework. *Journal of College Student Development, 50*(6)*,* 659-682. doi.org/10.1353/csd.0.0098

Richardson, D. M., Keller, T. E., Wolf, D., Zell, A., Morris, C., & Crespo, C. (2016). *BUILD EXITO: Supporting diversity in health-focused research across U.S. Pacific states and territories.* Manuscript submitted for publication.

Russell, S. H., Hancock, M. P., McCullough, J. (2007). Benefits of undergraduate research experiences. *Science, 316*(5824), 548-549. doi.org/10.1126/science.1140384

Schreiner, L. A., Noel, P., Anderson, E. C., & Cantwell, L. (2011). The impact of faculty and staff on high-risk college student persistence. *Journal of College Student Development, 52*(3), 321-338. doi.org/10.1353/csd.2011.0044

Shanahan, J. O., Ackley-Holbrook, E., Hall, E., Stewart, Kearsley, S., Walkington, H. (2015). Ten salient practices of undergraduate research mentors: A review of the literature. *Mentoring & Tutoring: Partnership in Learning, 23*(5), 359-376. doi.org/10.1080/13611267.2015.1126162

Shaw, K., Holbrook, A., & Bourke, S. (2013). Student experience of final-year undergraduate research projects: an exploration of 'research preparedness'. *Studies in Higher Education, 38*(5), 711-727. doi.org/10.1080/03075079.2011.592937

Syed, M., Azmitia, M., & Cooper, C. R. (2011). Identity and academic success among underrepresented ethnic minorities: An interdisciplinary review and integration. *Journal of Social Issues, 67*(3), 442-468. doi.org/10.1111/j.1540-4560.2011.01709.x

Terrion, J. L., & Leonard, D. (2007). A taxonomy of the characteristics of student peer mentors in higher education: Findings from a literature review. *Mentoring & Tutoring, 15*(2), 149-164. doi.org/10.1080/13611260601086311

Thiry, H., & Laursen, S. L. (2011). The role of student-advisor interactions in apprenticing undergraduate researchers into a scientific community of practice. *Journal of Science Education and Technology, 20*(6), 771-784. doi.org/10.1007/s10956-010-9271-2

Valantine, H. A., & Collins, F. S. (2015). National Institutes of Health addresses the science of diversity. *Proceedings of the National Academy of Sciences, 112*(40), 12240-12242.

van Emmerik, I. J. H. (2004). The more you can get the better: Mentoring constellations and intrinsic career success. *Career Development International, 9*(6), 578-594. doi.org/10.1108/13620430410559160

Wallace, D., Abel, R., & Ropers-Huilman, B. (2000). Clearing a path for success: Deconstructing borders through undergraduate mentoring. *The Review of Higher Education*, *24*(1), 87–102. doi.org/10.1353/rhe.2000.0026

Weaver G.C., Russell C.B., & Wink D.J. (2008). Inquiry-based and research-based laboratory pedagogies in undergraduate science. *Nature Chemical Biology, 4*(10), 577– 580. doi.org/10.1038/nchembio1008-577

Zaniewski, A. M., & Reinholz, D. (2016). Increasing STEM success: A near-peer mentoring program in the physical sciences. *International Journal of STEM Education, 3*(1), 14. doi.org/10.1186/s40594-016-0043-2

Acknowledgements

Author information
* Thomas E. Keller is the Duncan & Cindy Campbell Professor in the School of Social Work at Portland State University. He also is the Director of the Center for Interdisciplinary Mentoring Research and the Co-Principal Investigator for the BUILD EXITO project.

Thomas E. Keller
School of Social Work
Portland State University
P.O. Box 751
Portland, OR 97207
E-mail: kellert@pdx.edu
Telephone: 503-725-8205

Kay Logan is the Coordinator of the Center for Interdisciplinary Mentoring Research and the Coordinator for the mentoring programs in the BUILD EXITO project.

Kay Logan
Center for Interdisciplinary Mentoring Research
Portland State University
P.O. Box 751
Portland, OR 97207
E-mail: log@pdx.edu
Telephone: 503-725-9680

Jennifer Lindwall is the Communications Director for the BUILD EXITO project and a doctoral student in Applied Psychology at Portland State University.

Jennifer Lindwall
Center for Interdisciplinary Mentoring Research
Portland State University
P.O. Box 751
Portland, OR 97207
E-mail: lindwall@pdx.edu

Caitlyn Beals is a Program Coordinator for the BUILD EXITO project who supports the mentoring program.

Caitlyn Beals
Center for Interdisciplinary Mentoring Research
Portland State University
P.O. Box 751
Portland, OR 97207
E-mail: cbeals@pdx.edu
Telephone: 503-725-9281

*Corresponding author

Wake Forest University: Building a campus-wide mentoring culture

Allison E. McWilliams

Abstract

This article describes recent efforts by Wake Forest University to develop a campus-wide mentoring culture to support holistic student development, to assist with the critical transition from high school to college to life after college, and to develop skills and practices that will be valued by employers and graduate schools. The article describes how the University's Mentoring Resource Center has been developed and uses a decentralized model of mentoring to support mentor and mentee skill development with online and in-person tools and strategies. The article in particular describes several key peer mentoring programs as examples of diverse program goals and participants that are supporting student transition and development. Finally, the article looks at measures of success and lessons learned that can be applied in the future.

Keywords

Peer, transition, college student, network

Introduction

Higher education has always fulfilled a student development role as part of its educational mission. Institutions have recognized over time the evolving needs of students transitioning from high school to college. Similarly, campus models of developmental support have evolved to meet those student needs, particularly through incorporating peer mentoring programs. Schools of all sizes and institution types have added peer mentors to existing support roles such as faculty advisors, residence life supervisors, and campus life coordinators. Peer mentors are trained to advise and guide their younger counterparts in everything from course selection to navigating first-year transition to career choices. Many of these peer-to-peer relationships are established through first-year experience programs aimed at diverse goals. These goals include: improving student success and persistence; easing the transition from high school to college; developing academic and social skills; building effective interpersonal relationships; exploring one's identity, beliefs, and values; and as a result, increasing retention rates (Sanft, Jensen, & McMurray, 2008). At Wake Forest University, peer mentors play an important role in our efforts to support holistic student development, to assist with the critical transition from high school to college to life after college, to develop skills and practices that will be valued by employers and graduate schools, and ultimately to develop a campus-wide mentoring culture.

Not only do peer mentoring programs support first year students, they also provide a developmental opportunity for the older students who serve as mentors and who gain critical skills for creating and maintaining interpersonal relationships. Key to effectively fulfilling the role of peer mentor is a sound understanding of principles and theories of student development, and how those are enacted in

practice. As Daloz Parks (2000) notes, traditional college-age students (those aged, roughly speaking, 18-25) occupy an interesting place as "post-adolescent-not-yet-full-adult." These not-yet-full-adults are beginning to explore critical questions of purpose, vocation, and belonging (p. 65). More recently, Arnett (2004) has labeled these "post-adolescent-not-yet-full-adults" as *emerging* adults. Neither fully adolescent nor fully adult, it is a period notable for its exploration but also for its instability, in both work and relationships, and a time to develop "an ideology, a world view, a way of making sense of the world" (p. 144; 165). Emerging adults, in each of these three areas (work, relationships, identity-formation), are trying out possibilities and feel that they have "an unparalleled opportunity to transform their lives" (p. 8). But in doing so, they do not yet feel fully responsible for those lives, a criteria that they associate with the self-sufficiency and independence of adulthood.

The transitions from high school to college, and then to life after college, are therefore also transitions from adolescence to adulthood. These are key formative times in individuals' lives, when they discover personal beliefs, interests, values, strengths, and goals. It is a time of change and exploration that is for many a period of great excitement and opportunity. But it also can present challenges that seem overwhelming and that can lead to debilitating or destructive behavior and poor decision-making. As Arnett (2000) notes, this period of transition is "a time in life when many different directions remain possible, when little about the future has been decided for certain, when the scope of independent exploration of life's possibilities is greater for most people than it will be at any other period of the life course" (p. 469).

In addition to the work of emerging adulthood and its associated challenges and opportunities, researchers have identified several key factors that impact student development in college. These include: quantity and quality of involvement and engagement in campus life; the values, beliefs, experiences, and perceptions that students bring with them to college; engagement with the physical environment and individuals on campus; a sense of compatibility with the institution; and perhaps most importantly, the influence of one's social circle, which establishes norms for behavior and provides validation through inclusion, recognition, and acceptance (Newton & Ender, 2010, p. 40-43). Student development research tells us that the student's peer group can be the most important influence on his or her development, even to the point that he or she will change his or her values, beliefs, and aspirations "in the direction of the dominant values, beliefs, and aspirations of the peer group" (Astin, 1993, p. 398). More recently, Dennis, Phinney and Chuateco (2005) studied ethnic minority, first-generation college students and found that "peer support (or lack of needed peer support) is a stronger predictor of college grades and adjustment than support from the family" (p. 234). Clearly, the influence of one's peers holds particular value for the development of college students and further supports the importance of the peer mentoring role.

The benefits of learning how to create effective mentoring relationships during college can reach beyond the college student experience. Much has been written and said in recent years regarding the roughly 80 million members of the millennial generation, the last of whom are starting to leave college. By the year 2025, this generation will comprise 75 percent of the workforce. Unlike previous generations, these young people realize that they can expect to have upwards of twenty or more different jobs over the course of their lives. A recent study by Deloitte (2016) of young adults across 29 countries found that by 2020, two-thirds expect to leave their current employer. Why is that? Because these young people recognize that if their current employers do not provide the developmental, leadership, and growth opportunities that they are looking for,

then for their own career development they necessarily will have to move on to the next position that does. However, Deloitte also found that 81 percent of those inclined to leave were more likely to stay five or more years at their current employer if they felt that they were receiving mentoring. Another recent study by Gallup found long-term connections to personal and career well-being if one felt that he or she had a mentor in college who "encouraged me to pursue my goals and dreams" (Ray & Kafka, 2014). The developmental benefits of effective mentoring extend beyond the college experience, but it is there that these future young professionals start to learn the skills and practices of creating effective interpersonal relationships and networks.

Whether formal or informal, mentoring relationships are traditionally thought of as one-to-one interactions that involve the delivery of guidance, feedback, and lessons learned through direct experience. Historically, these relationships developed out of the apprenticeship model. In this model, an older, senior mentor passed on the wisdom of his experience to his appointed or anointed mentee, who would eventually take his place. Over time, this image of a unidirectional (and paternal) model of mentoring has evolved, and now includes different forms of mentoring. A much more developmental approach is emerging, which places emphasis on the goals of the mentee as opposed to those of the mentor. Also, as individual and organizational needs have changed, greater emphasis has been placed upon the value of personal learning and the need for robust, diverse developmental networks. Mentors ask the mentee to take much greater responsibility for his or her own developmental path and to seek out multiple mentors to fulfill different needs over time (Higgins & Kram, 2001; de Janasz, Sullivan, Whiting, & Biech, 2003; de Janasz & Sullivan, 2004; Lankau & Scandura, 2007).

Mentoring of college undergraduates occurs at that interesting intersection where a youth population begins to consider adult questions and make adult choices. Therefore, it necessarily must focus on several interrelated outcomes: (a) social and academic socialization to the higher education experience; (b) exploration and development of the potential self; and (c) identification of a future path that aligns with that potential self. Mentoring is particularly well-suited to this work as "consistent support creates a safe climate in which students can take risks and do the work of developing personally and professionally" (Johnson, 2007, p. 49). Furthermore, by participating in effective mentoring relationships with peers and others, students begin to scaffold key skills associated with building developmental networks and continuing lifelong learning, skills that will serve them well in an interconnected world.

Ideally, these relationships would develop within the controlled and structured environment of formal mentoring programs. However, just because formal structures are provided, there are not assurances that mentoring programs will be successful in achieving these goals. Formal mentoring programs single out a particular group for development to the exclusion of others. For the student population on university campuses, these groups tend to fall into one of three categories: those in need of social or academic help; those identified as having high potential for future leadership roles; or those who fall into a particular category such as underrepresented minority or woman or student-athlete. Furthermore, because most colleges do not have the capacity or the resources to administer a formal mentoring program that will provide a mentor for every single student on campus. Therefore, this sort of segmentation generally results in mentoring programs that target anywhere from 10-100 students and leave a significant population of students to find their informal mentors on their own. Unfortunately, if

undergraduates must identify and secure their own mentors, more often than not this doesn't happen or doesn't happen well. If mentoring programs aimed at improving student success are established for only a select few, then the majority is denied that opportunity and support.

At Wake Forest University we are building an interdisciplinary culture of mentoring that aims to achieve the interrelated outcomes of socialization, exploration, and identity-formation as well as building skills of interpersonal relationship-building and personal learning for *all* students. In June 2010, the university's strategic plan led to the establishment of the Mentoring Resource Center (MRC). The MRC plays a key role in supporting and building connections between students, faculty, staff, alumni, and the community to help align students' passions, strengths, and interests with their goals and visions for what they want to accomplish while at Wake Forest and in their future careers. Rather than manage a formal mentoring program for a select few, the MRC serves as a central office to provide training, support, recognition, and inspiration for all Wake Forest mentoring activities and programs. The mission of the MRC is to make mentoring a visible core experience and value of the Wake Forest community. The vision is to become a nationally recognized leader in higher education mentoring programs and practice. Most importantly, we are shifting our understanding of mentoring from only occurring within a formal program to one of individual skill development and institutional culture change. In the sections that follow, we describe our model, some of our key peer mentoring programs that contribute to our students' successful transition from high school to college to life after college, our metrics for success, and our future vision, and lessons learned.

Background

Wake Forest University is a private liberal arts institution of 4,800 undergraduates with a total enrollment of 7,669, located in Winston-Salem, North Carolina. At the heart of the campus is the teacher-scholar ideal, which encourages engagement with students both inside and outside of the classroom. This includes, but is not limited to, a long-held tradition of faculty-student advising, beginning with lower-division advisors who guide students through the first two years of college, at which point students transition to their major advisors. Mentorship has long been part of the ethos and guiding principles of the university.

Over the past few years, Wake Forest has taken steps to institutionalize and further support this long-standing tradition and culture of student mentoring. In June 2010, the university established the Mentoring Resource Center, which helps students think more deeply about their lives and make sound decisions. To accomplish this, the MRC provides training, guidance, resources, and support to formal and informal mentoring relationships across the campus community. Wake Forest's mentoring philosophy is based on the importance of developing a network of supportive relationships. These provide guidance, feedback, and wisdom to help college students learn the skills of critical thinking, problem solving, and decision-making on their individual paths from adolescence to adulthood. We define mentoring as *building a purposeful and personal relationship in which a more experienced person (mentor) provides guidance, feedback, and wisdom to facilitate the growth and development of a less experienced person (mentee).*

The MRC is a centralized office that operates a decentralized model of mentoring. The MRC does not administer any formal mentoring programs, match mentors with mentees, nor do we maintain

a master database of available mentors. The reasons for this are two-fold: capacity and continuity. Formal mentoring programs are high-resource initiatives. They do not have to cost a lot of money, but they do require consistent oversight and administration. For this reason, successful mentorship programs typically reach no more than 10 to 100 individuals. For us to reach our goal of providing every student with the opportunity to engage in an effective mentoring relationship while they are at Wake Forest, it is essential that we build capacity for those relationships throughout the university. Furthermore, with only one full-time and one part-time staff member, we will never be successful in accomplishing this goal on our own. Therefore, by seeding formal programs in various departments, with identified leaders of those programs, we ensure that those programs will outlast the individual staffing of the MRC into the future.

We also call the MRC approach a "consulting model" in that we consult with individuals across the university to support their efforts in developing mentoring programs and incorporating skills and practices of effective mentorship into their work. We will help anyone develop a mentoring program from inception to evaluation, including identifying potential mentors and mentees, helping with the matching process, providing training, and helping with evaluation. We firmly believe that mentoring programs develop best within the cultures within which they reside. It is also important that programs are created to meet the identified needs of their students; therefore, a professional mentoring program for business students will look quite different from a first-year transition program for first-generation students. As such, much of our work is spent building relationships and collaborative partnerships across campus to determine needs and opportunities to support the work of others. We do not step in and impose our standards onto any mentoring program or group. We do provide content expertise and support for faculty research proposals that have a mentoring component.

As a resource center, a large part of our work is to educate the campus community on what effective mentoring is, and to provide resources to support that work. We conduct trainings for formal programs and for groups of informal mentors like residence life staff and our Faculty Fellows, who are non-residential tenured faculty who have committed to spend time in the first-year residence halls. We create and distribute handbooks, toolkits, and tip sheets through our website; we keep a regular blog and twitter presence, and highlight stories of effective mentoring from members of our community. In 2015, we developed a set of Mentoring Learning Outcomes and associated strategies for both mentors and mentees. Furthermore, we created self-evaluations for participants, in both formal and informal mentoring relationships, to assess their progress towards excelling in each of those competency areas. Moreover, we have launched a quarterly e-newsletter, the *Mentoring Minute*, as a vehicle to distribute information and resources. In addition, each year in January, we celebrate National Mentoring Month as a point of focus for our entire campus community at the start of the spring semester. These are just some of the ways that we serve as an educational resource to our campus.

The Mentoring Resource Center was born out of the university strategic plan that was developed following the arrival of our current president, Nathan Hatch. That plan identified a need and an opportunity to elevate the role and value of mentoring on our campus. At the same time, the university created the Office of Personal and Career Development (OPCD), where the MRC is housed, replacing the traditional, placement-oriented career services model with one that is holistic and focused on developing students' abilities to be employable for life. By placing the MRC within the OPCD, the university made a strategic decision to connect mentoring with this

holistic, student-centered, skill development model. The MRC staff directly report to the Vice President, who in turn sits on the President's cabinet. This reporting structure communicates the value of mentorship to our campus from the highest level. Twice a year, we convene a Program Coordinator Council, comprised of the leaders of formal mentoring programs on campus, for professional development and sharing best practices. Twice a year, we also convene a faculty/staff advisory committee. This committee provides guidance and feedback on the work of the MRC and identifies opportunities for further engagement and outreach on our campus.

Peer mentoring programs

The Mentoring Resource Center was specifically created to focus on undergraduate student mentoring. Whether faculty, staff, alumni, or other students serve as mentors, the mentee focus stays on the student. This does not mean that other types of mentoring—faculty to faculty, students to youth off campus—aren't happening on our campus; they most certainly are, and occasionally the MRC consults with and provides training for these efforts as well. But we feel that it is important for the center to focus on our mission of developing the interpersonal relationship-building, decision-making, and identity-building skills of students making the transition from high school to college to life after college, and creating a campus-wide culture that supports that work.

One subset of the center's work has to do with supporting peer mentoring programs and informal peer-peer relationships that promote student transition and engagement while they are on campus. Individual program goals vary, and the structure of each program is organized to meet those goals. Furthermore, over time, individual programs have made adjustments based on participant feedback about what seems to be working and not working within the programs. What follows is a brief overview of some of these programs, including the MRC's role in their development and administration.

As mentioned previously, Wake Forest has a long tradition of faculty-student advising, a relationship that starts prior to orientation in the fall, and extends throughout the undergraduate years, as the student moves from lower-division to major advisor in the spring of sophomore year. In addition to the assigned lower-division faculty advisor, each incoming first-year student is also assigned an upper-class-person student advisor. Each student advisor is paired with a faculty advisor and approximately ten to twelve first-year students. The faculty advisor guides the first-year students through the college academic process. The student advisor assists with that process and serves as a peer mentor to these new students as they navigate the transition from high school to college. Student advisors are expected to meet with their first-year students throughout orientation week and once a month throughout the first year of college. The roughly 150 student advisors are trained in recognizing first-year transition issues, developing effective peer mentoring roles, building rapport and trust, as well as supporting mentees' academic efforts. A group of 8-10 experienced student advisors is selected each year to serve on the Student Advisor Leadership Council. This group establishes the program's direction, recruits and interviews all applicants, delivers the training, and provides oversight for the successful implementation of the program each year. Each Leadership Council member is responsible for 15-20 student advisors. The Office of Academic Advising manages the program, with the MRC serving in an as-needed, advisory role.

Magnolia Scholars and First in the Forest are two programs that have been created to serve first generation students at Wake Forest. Magnolia Scholars receive scholarship funding to support their academic progress. All Magnolia Scholars and First in the Forest students are provided with dedicated support to help them navigate the transition to (and through) college. As part of this support, new students are connected with upper-class-person peer mentors who are also first-generation students. These peer mentors meet with the new students, one-on-one and in small groups, throughout the first year. The program is managed by the Office of the Dean of the College; the program director also mentors and advises each of the first generation students throughout their academic career.

First Year in Focus is a peer mentoring program that was created by two staff members in the Office of Campus Life who recognized that, even with all of the support and resources provided during the first year of college, there were some students who were struggling to find their place and to get connected with their peers and with the university. The program started as a men's program only, and a small group of junior and senior men were selected to serve as peer mentors to those first-year males who self-identified as needing and wanting extra support. Over time, the program was expanded to include female-to-female mentoring as well. Each year, the program kicks off in early fall with a formal training session on peer mentoring and first-year transition needs and opportunities. The actual matching with mentees occurs on a rolling basis throughout the year, as first-year students decide that they need the program. For female students, in particular, some of these matches will not happen until early in the spring semester, following the annual sorority recruitment process.

Two of our formal peer mentoring programs are focused on issues outside of first-year transition challenges and opportunities. Omicron Delta Kappa (ODK), the honor society for outstanding seniors, has created a peer mentoring program with sophomores as part of its leadership and service missions. Each year ODK members and their sophomore mentees engage in formal mentoring conversations from mid-fall up to the major selection process in the spring. The sophomores are able to explore their future academic direction with someone who has been there before them. These conversations also allow mentors and mentees to talk about opportunities to engage with study abroad, student organizations, summer internships, and other on and off-campus experiences. The ODK peer mentoring program is one of our programs that is led by a student.

CHARGE is a student leadership development program that operates out of our Office of Campus Life. Each spring eleven teams of seven first-year and sophomore students learn about leadership models, skills, and practices, and develop a project to address a campus need, which they present to senior administrators at the end of the semester. Two upper-class-person mentors work with each team to guide the project research and development process. As well, these peer mentors facilitate the leadership development classes and lead conversations around building collaborative teams, effective communication skills, conflict resolution, and other topics. Four experienced senior mentors provide overarching leadership to the program, including selecting mentors and mentees and designing and delivering the curriculum. The program operates out of the Office of Campus Life.

We of course have many other peer relationships that fall into more of an informal mentoring category, such as our residence life staff, or shorter-term formal relationships, like our pre-

orientation programs. Those in the informal category don't necessarily serve as formal mentors to all of the students with whom they engage, but they use the skills and practices of effective mentorship in their everyday conversations and interactions. In our pre-orientation programs, upper-class-person mentors work with incoming first-year students over the course of the three or four days leading up to formal on-campus orientation in the fall, to help ease that transition and talk through challenges and opportunities these students may face, as they make the transition from high school to college. Program activities range from social justice projects to faith-based reflection to outward-bound type excursions and are open to all incoming students.

Another shorter-term formal mentoring program we have created is associated with one of our for-credit career courses. These half-semester courses walk students through identifying personal beliefs, values, strengths, and interests, understanding the world of work, creating a strategic job search plan, and making the transition from college to life after college. As part of the third course, strategic job search, students are given the opportunity to work with a young alumni mentor, to talk through issues of change and adaptability, thinking like an employer, and receiving feedback on job search documents. The mentoring relationship occurs over just three meetings and is highly structured. Both mentors and mentees report increased understanding of their roles in the job search process and increases in personal learning. The instructor of record for the course manages the mentoring program and works with the Office of Alumni Engagement to identify and recruit mentors.

Each of the aforementioned programs has been created and is administered by someone outside of the Mentoring Resource Center. The MRC serves each program in an advisory capacity, providing support with training, guidance on administration, and evaluation. Training typically covers: (a) a basic understanding of what effective peer mentors do and how to fulfill those roles; (b) a discussion of issues and needs related to student transition from high school to college; (c) principles of student engagement; and (d) an understanding of how to have a mentoring conversation. In 2015, we realized that we needed to do more than just tell people what skills effective mentors and mentees use; we needed to operationalize those skills into specific strategies and link them to expected best practices. Therefore, we created a set of Mentoring Learning Outcomes to identify these best practice competencies and strategies for all mentoring relationships on our campus, whether student, faculty, staff, or alumni. These Mentoring Learning Outcomes are defined in the section below, and guide our training efforts.

Mentor learning outcomes

Build and support effective relationships. Actively creates a supportive, intentional relationship with the mentee based on mutual trust, respect, and accountability that creates a safe space for the mentee to work towards personal learning goals. Willingly discloses personal stories and lessons learned through experience. Seeks out opportunities for intentional conversations that support the growth of the mentee. Role models expected behavior for effective relationships.

Provide objective guidance and feedback based on personal experience. Facilitates the mentee's ability to create and work towards specific learning goals by providing objective feedback and guidance on goals and action steps, sharing lessons from personal experience, and serving as a connector to people and resources.

Facilitate reflective thinking. Pushes the mentee to reflect on experiences by asking thoughtful, thought-provoking questions that seek deeper meaning and help the mentee to become more self-aware of strengths and growth opportunities. Seeks out opportunities for intentional conversations that support the growth of the mentee.

Take ownership for own personal growth and learning. The mentor serves as a role model for mentee growth and learning by employing practices of goal-setting, seeking feedback, and reflection for personal development during the mentoring relationship.

Mentee learning outcomes

Build effective personal and professional relationships. The mentee takes initiative in building and maintaining relationships with the mentor based on mutual trust, respect, and accountability. The mentee actively creates intentional relationships with more experienced mentors to support work towards personal learning goals.

Set goals for personal growth and learning. Creates goals as framework for the mentoring relationship. Owns progress towards accomplishing goals through process of taking action, asking for feedback, and reflecting on lessons learned for future application.

Ask for and receive feedback. The mentee openly shares progress towards personal goals with her or his mentor and actively solicits feedback on strengths and opportunities for growth. The mentee practices active listening and understands how to receive and respond to feedback in an appropriate manner that maintains relationships.

Reflect on experiences and lessons learned for future application. Intentionally engages in self-reflection after taking action towards identified goals. Mentee openly engages in reflective conversations with mentor regarding lessons learned and future application.

In addition to the Mentoring Learning Outcomes, we created a set of self-evaluation instruments that allow individuals to assess their progress over time in becoming more proficient at these practices. The self-evaluations allow for individuals to compare responses from the start of the relationship, mid-point, and the end of the relationship. Additionally, we can pull and aggregate data across formal mentoring programs and share that data with the program coordinators which helps both them and the center think about how and where we need to improve our training and educational efforts. This serves as another data point for us as we assess mentoring reach and effectiveness on our campus, which is an ongoing challenge.

Each year on average 2300 participate in our formal mentoring programs across our campus, and 785 participate in formal training programs that we facilitate. This number does not fully capture all of the mentoring efforts on campus as many of those occur in that informal space. Each formal mentoring program is responsible for doing its own program evaluation and can choose whether to share those results with the Mentoring Resource Center. Additionally, every other year our Office of Institutional Research conducts the College Senior Survey (see Table 1) and includes several Wake Forest-specific mentoring-related questions; an overview of those results is included below.

Table 1.
Wake Forest College Senior Survey: *Overview of questions related to Mentoring*.

	2009	2011	2013	2015
To what extent did you have a person at Wake Forest you would consider your mentor (Significant or Very Significant)	36%	47%	45%	56.8%
How valuable was the mentoring experience for you at Wake Forest (Significant or Very Significant)	45%	53%	46%	61.1%
Please rate your satisfaction with your ability to find a faculty or staff mentor (Satisfied or Very Satisfied)	75.3%	79.8%	79%	81.8%
What would have improved your mentoring experience at Wake Forest?				
- Training on effective mentoring practices	N/A	6%	10%	9.4%
- More information on mentoring programs	N/A	19.3%	24%	22.3%
- Information on how to find a mentor	N/A	26.6%	32%	30.1%
- More access to my mentor	N/A	14.2%	11%	15.5%

As these numbers demonstrate, there is always more work to be done. As we continue to grow programs and build the culture of mentoring on the Wake Forest campus, the Mentoring Resource Center looks for additional ways that we can assess the reach and impact of mentoring efforts. Perhaps more importantly, we continue to be focused on capturing and sharing mentoring stories that describe the sometimes life-changing experience that is a mentoring relationship.

Conclusion

As we look to the future, we at the Mentoring Resource Center are constantly and consistently focused on ways that we can continue to elevate the mentoring culture on our campus, to develop the critical skills of interpersonal relationship management in our students, and to seek new ways to share resources and tell stories of exceptional mentoring. Since the center's inception, we have focused on starting small, and piloting new efforts, in hopes of building big successes over time. We have also been very clear that any success the center has is dependent upon our ability to collaborate with partners across the university. In the coming year, we are looking to build additional partnerships with our Campus Life and Residence Life staffs as they seek to build new mentoring programs into student organizations and the residence life community. In the fall of 2016, we launched a Mentoring Certificate Program for faculty and staff; in addition we will be piloting an alumni version of the program in the spring. We also are launching a redesigned website in the spring with a stronger focus on storytelling.

One of the keys to our success has been the incorporation of mentoring into the mission, vision, and philosophy of the university. As noted previously, mentoring has always been part of what we do at Wake Forest, whether explicitly stated or not. Under the current administration's leadership mentoring has been raised as an aspirational value and key strategy of the university. Having the leaders of the university as champions for our work provides immeasurable support and a voice for us in rooms to which we might not normally have access. Furthermore, our work is completely supported by external funding in the form of donations from students' parents who believe in the value of what we are doing. This monetary support provides the center with a measure of freedom. This allows us to accomplish our goals in an environment that currently sees less money being put towards higher education programs, not more.

Assessment and evaluation is a constant challenge, not only because of the over-surveyed nature of our campuses, but also due to the difficulty in measuring impact of interpersonal relationships. Many, if not most, effective mentoring relationships occur in the informal space, which often cannot be identified or quantified. It happens in a walk across the quad after class, or a shared meal in the campus cafeteria, or in brief exchanges on the intramural field. These "mentoring moments" are no less impactful or meaningful than those that happen within the formal structures of a mentoring program; often those impacts cannot be seen, measured, or identified until years down the road. It is because of this, and because we know that the ability to create effective interpersonal relationships is one that transcends our metaphorical campus walls, that we have become more focused on skill development than on the development of any one program.

We are often asked if other schools or organizations can apply our decentralized, consultant model of mentoring. We firmly believe that they can, given the right support, adequate resources, and the willingness to create the model that works for that organization's culture. Mentoring, whether at the individual, programmatic, or institutional level, is a strategic intervention, and should always be deployed and honored as such. To try to apply a one-size-fits-all model does not do justice to the needs and the goals of the individuals who are participating and who will ultimately be impacted by that intervention. Mentoring, we often say, is an awesome responsibility and one that should not be taken lightly. At the same time, it is an awesome opportunity to create meaningful difference in the lives of students, programs, and institutions.

References

Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. American Psychologist, 55(5), 469-480. doi.org/10.1037/0003-066X.55.5.469

Arnett, J.J. (2004). Emerging adulthood: The winding road from the late teens through the twenties. Oxford University Press.

Astin, A.W. (1993). What matters in college? Four critical years revisited. San Francisco: Jossey-Bass.

Daloz Parks, S. (2000). Big questions, worth dreams: Mentoring young adults in their search for meaning, purpose, and faith. San Francisco, CA: Jossey-Bass.

Deloitte (2016). Deloitte millennial survey 2016. Retrieved from http://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html

de Janasz, S.C., & Sullivan, S.E. (2004). Multiple mentoring in academe: Developing the professorial network. Journal of Vocational Behavior, 64(2), 263-283. doi.org/10.1016/j.jvb.2002.07.001

de Janasz, S.C., Sullivan, S.E., Whiting, V., & Biech, E. (2003). Mentor networks and career success: Lessons for turbulent times [and executive commentary]. The Academy of Management Executive (1993-2005), 17(4), 78-93. doi.org/10.5465/AME.2003.11851850

Dennis, J.M., Phinney, J.S., & Chuateco, L.I. (2005). The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. Journal of College Student Development, 46(3), p. 223-236. doi.org/10.1353/csd.2005.0023 Higgins, M.C., & Kram, K.E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. Academy of Management Review, 26(2), 264-288. doi.org/10.1353/csd.2005.0023

Johnson, B.W. (2007). On being a mentor: A guide for higher education faculty. New York: Lawrence Erlbaum Associates.

Lankau, M.J., & Scandura, T. A. (2007). Mentoring as a forum for personal learning in organizations. In T. D. Allen & L. T. Eby (Eds.), The Blackwell handbook of mentoring: A multiple perspectives approach (pp. 95-122). Malden, MA: Blackwell Publishing Ltd.

Newton, F.B., & Ender, S.C. (2010). Students helping students: A guide for peer educators on college campuses. San Francisco, CA: Jossey-Bass, Inc.

Ray, J., & Kafka, S. (2014). Life in college matters for life after college. Gallup. Retrieved from http://www.gallup.com/poll/168848/life-college-matters-life-college.aspx

Sanft, M., Jensen, M., & McMurray, E. (2008). Peer mentor companion. Belmont, CA: Wadworth, Cengage Learning.

Author information

Allison E. McWilliams is the Director of Mentoring and Alumni Personal & Career Development at Wake Forest University, a role she has held since June 2010. Prior to her current role, she served as a faculty member at the University of Georgia where she led leadership development, organizational development, and mentoring programs. She is a board member of the International Mentoring Association and has written and spoken broadly on the topic of mentoring.

Allison E. McWilliams
Mentoring and Alumni Personal & Career Development
Wake Forest University
Reynolda Hall, Suite 230
Winston-Salem, NC 27109
E-mail: mcwillae@wfu.edu
Telephone: 336-758-3741
Web: http://mentoring.opcd.wfu.edu/

Innovating for student success: The University Leadership Network (ULN) and tiered undergraduate peer mentor model

Jennifer L. Smith, PhD

Abstract

This paper highlights the innovative approach the Student Success Initiative's unit at the University of Texas at Austin is taking to increase undergraduate persistence and four-year graduation rates. Specifically, this piece explores the large-scale University Leadership Network (ULN) program and examines the tiered undergraduate peer mentor model utilized to support the success of first-year students from low-socioeconomic backgrounds, including a majority of underrepresented minority (URM) students. The article also reviews the critical role peer mentors play in helping to meet institution-wide goals and how they extend the reach of student support programs. Lastly, best practices, challenges, and components necessary for program replication will be presented.

Keywords

Peer mentor, training, underrepresented students

Introduction

The role of the undergraduate peer mentor serves as a substantial source of positive influence on fellow college students' level of engagement and academic and nonacademic success. According to Astin (1993), "The student's peer group is the single most potent source of influence on growth and development during the undergraduate years" (p. 398). Additionally, the role of the peer mentor has gone through an extensive evolution throughout the history of higher education. The role has progressed from offering primarily low-level clerical support to university staff, to tutoring, to now acting in the critical role of peer mentor to support undergraduate student success (Hansen & Johnston, 1986).

Peer mentor programs demonstrate the strength of the peer influence and ability to perform the mentor role because of institutional investment in quality supervision and training (Sipe, 1996). This preparation, and the benefit of having more student paraprofessionals, extend the ability for an organization and institution to meet student success objectives. For example, peer mentors have the ability to meet with students with more frequency and thereby build rapport, creating an environment where student community can flourish. Creating a sense of belonging encourages mentees to share more openly about successes and challenges, in turn fostering opportunity for mentors to provide guidance and resources, which promote student success. Overall, a peer mentor program with clear structure and purpose, quality training, and institutional support can greatly increase student persistence and ultimately graduation rates (Coles, 2011).

The University of Texas at Austin (UT Austin) is taking great strides to provide academic, co-curricular programming, and financial support for all students, including the increasing number of underrepresented minority (URM) students. For the purposes of this article, URM students include African American, Hispanic, low-income, and first-generation college students. Current research strongly shapes efforts to increase student success at UT Austin. The institution carefully examines student outcomes of low-income and first-generation students, in addition to URM groups and their performance at predominantly white institutions (PWI) in relation to Historically Black Colleges and Universities (HBCUs) and Hispanic Serving Institutions (HSIs) (Allen, 1992; Cokely, 2000; Flowers, 2002; Harris, 2012). This area of research provides insight into creating academic and co-curricular atmospheres that create community and opportunity for success for URM students.

Research indicates low-income and first-generation students are at increased risk of failure in post-secondary education, due to a variety of contributing factors, such as academic preparation, demographic backgrounds, and other conditions. (Walpole, 2003). Engle and Tinto (2008) suggest, "The problem is as much the result of the experiences students have during college as it is attributable to the experiences they have before they enroll" (p.3). Their research demonstrates that low-income, first-generation students are also less likely to engage in activities that foster success, resulting in "lower levels of academic and social integration [which]…are inextricably linked to finances and financial aid" (p.3). Engle and Tinto go on to state that universities wishing to see an increase in success for low-income and first-generation students should provide additional financial aid and create structured programs and initiatives to ease the transition from high school to college. The University of Texas at Austin's response to this research has resulted in the expansion of existing and creation of new student success initiatives.

Regarding URM populations, UT Austin also examines the idea of academic self-concept. The "best predictor of academic self-concept for students attending HBCUs was quality of student-faculty interactions, [while] grade point average is significantly more important for the academic self-concept of African American students attending [PWIs] than African American students attending HBCUs" (Cokely, 2000, p.1). UT Austin is categorized as a PWI, with 44% of the student body identified as White (The University of Texas Statistical Handbook, 2015). The literature also confirms that URM students exhibit reduced levels of academic success due to a range of pre-college factors, such as lower levels of parental or guardian education, academic preparedness, socioeconomic status, and ascribing to racial stereotypes propagated through media and other social constructs (Allen, 1985; Fry, 2011; Strayhorn & Terrell, 2010).

Researchers seek to further understand the lived experiences of URM students attending PWIs. For example, Dalhvig (2010) and Strayhorn & Terrell (2010) reported that African American and Latino students describe their experiences on PWI campuses as "chilly" and "restrictive." URM students and males in particular are not only seeking to acclimate to university life at a PWI where they may already feel isolated, but also report having to combat stereotypes as they are perceived as "threatening, unfriendly, and less intelligent" (Cuyjet, 1997, p. 8). The tailored experiences that HBCUs and HSIs provide for URM students leads to increased academic success, student satisfaction, and development of student leadership opportunities (Allen, 1992; Fleming, 1984; Flowers & Pascarella, 1999). Reddick (2006) suggests that PWIs should "seek the assistance of historically Black colleges and universities if these organizations truly desire to

support African-American students" (p. 15). More than 85% of African-American students enroll at PWIs, and demographic forecasting indicates that the Hispanic population will become the largest ethnic group in higher education in the near future (Fry, 2011, Reddick, 2006). It is clear that PWIs need to determine how to create conducive learning environments for URM students. UT Austin is actively working to create and implement innovative programming for URM students, designed to provide a holistic experience during their four years that includes academic and financial support, opportunities to develop professional and leadership skills, and peer mentoring.

The University Leadership Network (ULN) is the largest student success initiative at The University of Texas at Austin (UT Austin), designed to support first-time-in-college (FTIC) students from low-socioeconomic backgrounds (annual family income less than $60,000). One byproduct of serving low-income students is that 67.2% of the students are from underrepresented groups and 67.8% are also the first in their families to attend college (ULN Brochure, 2016). One of the most critical components of the program model is peer mentoring. ULN has created a peer mentor model that shifts the role of the peer mentor relationship from solely academic success to one of long-term leadership and professional development. Recognized as a pioneering incentive-based graduation program, ULN's program model has a focus on leadership, professional development, and experiential learning. These efforts have received national recognition in publications such as Paul Tough's (2014) article, "Who gets to graduate" in the May issue of the New York Times Magazine, and were featured on *PBS NewsHour* in the summer of 2015 ("Why Poor Students Drop out Even When Financial Aid Covers the Cost," August 17, 2015). This recognition has created excitement around student success and collaborative efforts to share best practices of the model.

This article provides an overview of UT Austin as an institution, the ULN program as a whole, and a thorough review of the ULN peer mentor model. The following section will provide an in-depth analysis examining why the ULN peer mentor model is ideal for increasing student success and present lessons learned through program implementation. Lastly, this piece concludes with an outline of program and institutional components necessary for program replication and future vision for ULN.

Background

The University of Texas at Austin (UT Austin) is a four-year, full-time, more selective, public institution with highest research activity. (Carnegie Foundation, 2015). UT Austin was founded in 1882 and contains 18 colleges and schools. The student population is served by 3,090 faculty and thousands of staff members. UT Austin as of 2015 has a student body of 50,950, with an undergraduate population of 39,619 students; (The University of Texas Statistical Handbook, 2015). UT Austin is also ranked 14th most innovative school and 18th among top public institutions (U.S. News & World Report, 2016).

As of fall 2015, UT Austin's undergraduate population is 44.4% White, 22.1% Hispanic, 4.9% Black, 19.9% Asian, .2% American Indian, .1% Hawaiian/Pacific Islander, 2.9% Multi-Racial (2 or more, excluding Hispanic and Black), 4.9% Foreign, and .7% Unknown. Although our Hispanic population is growing, our Black population has not yet risen above 5%. Within the

2015 undergraduate student population there are 19,016 males (48%) and 20,603 (52%) females (The University of Texas Statistical Handbook, 2015). UT Austin is the flagship institution within the state of Texas and is held up as a model for the state and the nation for creating and implementing innovative programs like the ULN in order to increase undergraduate student success. One indicator of this success appears in UT Austin's participation in the University Innovations Alliance (UIA). UT Austin collaborates with a group of ten peer institutions focused on identifying and implementing innovative student success initiatives. This work was featured in a recent *Inside Higher Ed* piece, "Officials at 11 Partnering Institutions Share Strategies for Helping Students Graduate," (Thomsen, J. 2015). ULN staff presented the program and mentor model when UT Austin hosted the UIA representatives earlier in the year.

History

The creation of the ULN was made possible by a dramatic change in how UT Austin defines and prioritizes student success. The institutional culture shifted in response to an ambitious and publicly declared goal to increase the university's four-year graduation rate to 70% by 2017. In 2011, when the goal was set by then-UT Austin President Bill Powers, the university's four-year graduation rate was 51% for its roughly 40,000 undergraduates. Though this rate was the highest among public colleges and universities in Texas, it was well below four-year graduation rates at some peer institutions like the University of Michigan at Ann Arbor and the University of North Carolina at Chapel Hill (National Center for Education Statistics). Focusing on four-year graduation as a top priority was supported at the statewide level as well. was The University of Texas System leadership touted the 70% goal as an important step in the efforts of its institutions to improve graduation rates, persistence rates and the number of degrees conferred, as part of their commitment to make higher education more accessible to a greater number of students (Cigarroa, 2011). Targeting graduation rates as a focus for improvement also reflected the growing national concern over accessibility and affordability in college education when career and earning outcomes are increasingly tied to degree completion (Baum, Ma, & Payea, 2013; The White House Office of the Press Secretary, 2009).

The mandate to raise graduation rates initiated a focal point for campus-wide efforts and provided unprecedented resources to create and scale up student success initiatives. To lead these efforts, the position of Senior Vice Provost of Enrollment and Graduation Management was created to be the "Graduation Rate Champion." This new leadership role was designed to bring together campus units across the undergraduate experience— admissions, financial aid, registrar, academic colleges, advisors, technology and facilities— toward the common goal of supporting student progress toward four-year graduation (UT News, 2012). David Laude, UT Austin's Senior Vice Provost for Enrollment and Curriculum and Graduation Rate Champion, continues to teach undergraduate students as a professor of chemistry and also brings many years of previous experience creating effective programs for student success in UT Austin's College of Natural Sciences. To support the bold initiatives required for a leap forward in on-time graduation, the Provost's Office designated yearly funds to provide for student success initiatives university-wide. The amount calculated to approximately $100 per undergraduate per year, a moderate sum that has brought about sizable improvements in student success metrics like persistence and graduation rates. Leveraging existing practices and current staff in creative ways to implement innovative changes enabled a cost-effective transformation.

Since the 70% graduation rate goal was set in place, the Graduation Rate Champion has led a number of large-scale projects designed to support student success, impacting thousands of students yearly. UT Austin created a Student Success Initiatives team to implement and oversee these projects, working with numerous academic and co-curricular units across campus. Some initiatives impacted institutional processes like advising and student tracking; these activities now include data-driven predictive analytics used to identify students likely to benefit from extra support through success programs or strategic advising. Others focused on the first-year undergraduate experience: all first-years at UT Austin now take part in a redesigned orientation experience, emphasizing academic expectations, and participate in small learning communities during their first semester. Academic learning communities that apply research-based practices to support student success already existed on campus, but were expanded to support 25% of all freshmen, focusing on those identified as most likely to benefit from additional support to graduate on time based on predictive analytics. Many of the improved programs and processes initiated by the push for improved success operate broadly and affect all UT Austin undergraduates, but the most innovative is the University Leadership Network, a student program designed to remove non-academic barriers to success for those students who arrive at college with high financial need and less likelihood of graduating on time.

Since the four-year graduation rate goal was set in 2011, the graduation rate has risen by ten percentage points to 61% for students graduating in 2016, the university's highest four-year graduation rate on record (The University of Texas Statistical Handbook, 2016). The first-year persistence rate at UT Austin rose from 91.8% in 2011 to a new high of 94.5% for students returning in 2014. Furthermore, the most recent cohort of first-years achieved a 95.1% persistence rate in 2016. In 2016, moreover, institutional records were achieved by juniors and seniors as well. Persistence after the second year reached a high of 91.9% for students returning as juniors, and the class returning as seniors raised the bar with 85.2% persisting. Setting the lofty goal for a 70% four-year graduation rate in five years catalyzed a transformation in student success at UT Austin that is making a difference for students and for the institution.

Program description

The University Leadership Network (ULN) program at UT Austin is an undergraduate incentive-based scholarship program focused upon developing professional and leadership skills while achieving academic success that is consistent with graduating in four years. The ULN student population consists of students with demonstrated financial need and who have generally come from under-resourced high schools in Texas.

ULN's mission is "to encourage and support students to graduate in four years and become leaders through professional and experiential learning opportunities that advance their education, communities, and lives" (ULN, 2015).

Across the ULN classes of 2017, 2018, and 2019 the average combined household income of ULN students is less than $60,000 per year. Additionally, ULN serves a large number of URM students. Across the previously mentioned three cohorts, 67.2 % of ULN students come from

underrepresented groups and 67.8% are also first-generation college students. All ULN students enter the program as first-time in college students and are selected from across all majors and colleges. Each entering class consists of 500 students.

As of fall 2016, ULN serves up to 2000 students, with up to 500 students in each cohort (freshman, sophomore, junior, and senior). Participating students earn an annual scholarship of $5,000, which is disbursed in monthly increments of $500 throughout the fall and spring semesters as program requirements are met. Students who participate all four years in the University Leadership Network earn up to $20,000 in scholarship funds, which also leads to a decreased student debt-load. The initial funding for the ULN program arose out of a onetime gift provided by the University of Texas Board of Regents in 2013. When that funding had been utilized, the scholarships shifted to utilizing tuition set-aside funds. Tuition set-aside funds operate by a formula, in which a percentage of every tuition dollar is set aside to be utilized for students qualifying for need-based financial aid. The external relations team within the Provost's Office has cultivated relationships to fund scholarship, program, and operational costs. The Houston Endowment gave a significant gift of $8.2 million dollars to support three full cohorts of 125 students from the Houston Area and to fund a quarter of the program's operational costs in the fall of 2015. The remaining funding for operational costs is provided through the Provost's Office, as the program is a part of the Student Success Initiatives unit housed within the Provost's Office.

All ULN students participate in first-year academic learning communities in addition to their participation in ULN. Expansion funds provided by the Student Success Initiatives has made it possible for all ULN students to participate in existing successful first-year academic learning programs across colleges and units. The academic learning communities meet with students during orientation. During the academic year, they provide individual advising, access to no-cost tutoring and collaborative study, guidance from academic peer mentors throughout their first year, and access to sought-after and/or smaller classes. This partnership ensures that first-year students in ULN have a firm academic foundation in addition to four years of leadership and professional development opportunities and guidance from the ULN team. The directors and team members maintain collaboration across the leadership of academic learning communities, ULN, and Student Success Initiatives by meeting weekly to discuss ongoing initiatives, address challenges and changes, and to discuss new initiatives or resources that benefit student success.

ULN students have a campus reputation for their notable authentic leadership, professionalism, and grit. From their first day, ULN Students experience a culture dedicated to helping them learn to lead from where they are. Participants begin their foundational year by attending the weekly Leadership Speaker Series and small group meetings facilitated by their ULN Peer Mentors. In the second year, students participate in exciting on-campus internships with campus partners from diverse units/departments across the university. During their third and fourth years, ULN students engage in more tailored experiential learning opportunities such as study abroad, research, on/off-campus internships, or Project-Lead (non-profit project management program). Graduating seniors present their four-year ULN experience in group or individual presentations during the Fall Leadership Showcase and conclude their final semester attending "Next Steps" programming events designed to ensure students are prepared for post-graduate lives in industry, graduate or professional education, and beyond. In addition to experiential learning, ULN

program requirements include: (a) completing 5-10 hours of community service per semester in the UT/Austin community; (b) engaging in self-reflection; (c) completing 25% of hours needed for their individual degree plan each academic cycle (fall, spring, summer); and (d) to remain in good academic standing (2.0-4.0 GPA) with the institution. The following sections focus on describing the ULN peer mentor population, program, and training structure, and the unique shift from traditional peer mentoring to professional development coaching for underrepresented students with demonstrated financial need.

ULN peer mentor population

ULN peer mentors focus on serving as professional development coaches to first-year students in the program. Our year-two coordinator also serves as the coordinator and supervisor for all ULN mentors. The ULN staff member facilitates training sessions, organizes detailed logistical aspects of the program and leads weekly training for lead mentors. ULN peer mentors lead weekly small group discussion sections designed to allow our first-year students to apply and reflect on topics presented in their weekly leadership speaker series. Reflection can involve small group discussion, individual journal reflections, etc. Each peer mentor strives to develop the professional skills of first-year students and create a supportive community-centered environment.

Table 1.
Selected Characteristics of ULN Peer Mentors

2015 – 16 ULN Peer Mentor Demographics	
Asian	12
Black	6
Hispanic	47
White	6
Foreign	4
Multiracial	1
Not Reported	1
Total	75

2015-16 ULN Peer Mentor College Breakdown	
Architecture	2
Business Administration	3
Communication	9
Education	1
Engineering	13
Fine Arts	5
Geosciences	0
Graduate School	0
Liberal Arts	12
Natural Sciences	27
Nursing	4
Social Work	0
Undergraduate Studies	1

All ULN peer mentors consist of successful second-, third-, and fourth- year ULN students representative of all colleges. Their participation as peer mentors counts as their experiential learning opportunity. Within their peer mentoring experience, students gain valuable transferable

skills such as: leadership development, organization, interpersonal development, cultural competency, conflict resolution, group dynamics, etc. For the 2015-16 academic year, the ULN peer mentor cohort (see Table 1) consisted of 77 students (58 second-year students, and 19 third-year students). Of that group, 24 mentors were male and 53 mentors were female. Their cumulative GPA as a cohort was 2.93. The Lead Mentor cohort consisted of nine students (all third-year students). Within this group, four were male and five were female. Their cumulative GPA as a Lead Mentor cohort was 3.35. As our program serves students from all majors and colleges, our mentor population is also representative of that diversity.

Mentor selection

Mentor applications are open to all second- through fourth-year ULN students. The recruitment process occurs during the months of February through April. To clarify, peer mentors are not student employees and do not earn an hourly wage. Serving in a mentor role meets their experiential learning requirement in addition to other program requirements (service, academics, etc.) which results in their monthly scholarship disbursement. Mentors are able to review the mentor position description on the online posting system. Then the Mentor Coordinator and a small number of existing Lead and ULN Mentors operate a booth at the spring ULN internship fair. This provides an opportunity for prospective mentors to ask questions regarding the role of a ULN peer mentor and to hear about the experiences and perspectives of current peer mentors.

Following the internship fair, students can submit an online application, resume, and letter of recommendation from a current ULN peer mentor within the online posting system. Prospective mentors are interviewed individually with a ULN staff member and when possible also a current peer mentor. Having a current peer mentor within the recruitment process has proven to be a critical ingredient in the success of our recruitment process. Initiating the desire to hear the student perspective during the process creates a more diverse lens to review the candidates. Typically, 100 to 150 candidates apply for the position to fill up to 80 available positions.

Program model

The ULN peer mentor model utilizes existing research, a nationally known training model, and the use of a tiered structure of leadership. Although I direct the program, my previous experience as a mentor coordinator (eight years) and research background in the field of mentoring heavily influenced the ULN mentor model as it is today. The sections below examine the theoretical frameworks that support the model, highlight the structure and influence provided by the College Reading and Learning Association (CRLA) International Mentor Training Program Certification (IMTPC) and training model, and lastly a careful look into the tiered structure of leadership within the mentor model.

 Mentoring research from the disciplines of Business and Education have greatly influenced the development of the ULN mentor model. Within the field of Business, the concepts of the psychosocial and vocational functions of mentoring are key in understanding the phenomenon. Here the psychosocial function refers to the mentor offering "role modeling, counseling, confirmation, and friendship, which help the young adult to develop a sense of professional identity and confidence" (Kram & Isabella, 1985, p. 111). The vocational function highlights the

way mentoring creates an opportunity to provide "sponsorship, coaching, facilitating exposure and visibility, and offering challenging work or protection, all of which help the younger person establish a role in the organization, learn the ropes, and prepare for advancement" (Kram & Isabella, 1985, p.111). Within higher education there is limited research focused on the experiences of peer mentors. My research explores the experiences of underrepresented undergraduates serving fellow underrepresented first-year students at a predominantly white institution (PWI). Extending upon the work of Moore and Amey (1988), my research introduces a tailored operational definition of undergraduate peer mentoring:

> Undergraduate peer mentoring is a relationship between a more experienced undergraduate student from an underrepresented population (typically older) acting as a role model, friend, and resource to a less experienced undergraduate student (typically younger) who is also from an underrepresented population. The aim of the mentoring relationship is to further the mutual development and refinement of both the mentee and mentor's psychosocial and vocational skills in order to aid in their successful transition to college life (Smith, 2014, p. 209).

The definition highlights the reciprocity of learning between mentor and mentee and demonstrates the social exchange of skills and experiences that occur because of engaging in a peer mentoring relationship. Additionally, this definition helps communicate the role of our peer mentors as professional development coaches as well as aids in the formation of mentoring curriculum and programming.

Student development theory is also foundational within the ULN mentor model. For example, our team applies Schlossberg's Transition theory (1984) as a point of reference when developing programming. This theory informs our practice for how individuals experience significant transition (e.g. going to college). Specifically, Schlossberg's work identifies four components to examine during the transition cycle, which include situation, self, support, and strategies (Goodman, Schlossberg, & Anderson, 2006). These components, known as the four S's, are informative when considering how success initiatives create programming to support successful transition and promote opportunities for students to examine and assess their individual situation, how they feel, what support and/or resources are available to them, and what strategies could them employ to ensure they successfully navigate the transition experience. ULN also draws on the work of foundational researchers in higher education who focus on student engagement and involvement in learning (Astin, 1977, 1984), academic and social integration (Pascarella & Terenzini, 1977; Tinto, 1975), social support (Cobb, 1976, Pearson, 1990; Vaux et al., 1986), and developmental support (Chickering, 1969; Perry, 1970).

High quality mentor training is a critical component of the ULN mentor model. For practitioners in the field of peer mentoring and leadership, the best practice of providing consistent, ongoing, high-quality training is critical to success. Training equips the mentors and ensures mentees receive a consistent mentoring experience. The CRLA IMTPC certification model (CRLA, 2015) shapes the ULN peer mentor training model. The ULN program is working toward becoming a level-two CRLA-IMTPC-certified program and utilizes the requisite training standards. ULN peer mentor training includes two, day-long training sessions at the start of each semester in addition to on-going, one-hour weekly training sessions. The level-one (beginning level) mentor

certification training model includes a total of 15 hours of professional development training. This level of certification covers seven required topics: "the role of the peer mentor; peer mentoring do's and don'ts; professional ethics for peer mentors; establishing rapport and motivating mentees; questioning and listening skills; preparing to study: organization, class analysis, and time management; campus and community resources." Additionally, ULN selects topics for eight hours of training, which can range from resilience, to becoming a change agent, creating a resume, or interview skills, to professional communication (CRLA, 2015). In addition to the up to 25 hours of training, peer mentors also require 50-75 hours of face-to-face mentoring experience. Returning mentors and lead mentors can receive additional levels of certification as they continue to acquire training and mentoring contact hours in subsequent years on the team.

Lastly, the ULN peer mentor model employs a system of tiered leadership (see figure 1). ULN students may apply to become a mentor after completing their first year in the program. Once a student becomes a mentor, they undergo training to facilitate weekly discussion sections on a team of two to three fellow mentors, supporting 18 to 24 first-year students in the ULN program. Mentors attend weekly training sessions facilitated by fellow Lead ULN mentors. Training sessions provide a consistent first-year experience, instill a greater awareness of the mentor's leadership style, and develop a capacity to work collaboratively toward a common goal. ULN mentors also meet weekly with their fellow small group mentors to plan how they will deliver training that provides first-year students time to apply and reflect on the week's leadership speaker series topic. Mentors also attend the first-year leadership speaker series, which provides positive role modeling and opportunity to set high expectations for first-year ULN students. Mentors then engage in activities during weekly mentor group discussions that align with the first-year leadership speaker series. Those topics include, but are not limited to: resilience, leadership and ethics, self-branding, growth vs. fixed mindset (Dweck, 2006), building successful teams, and developing a professional network.
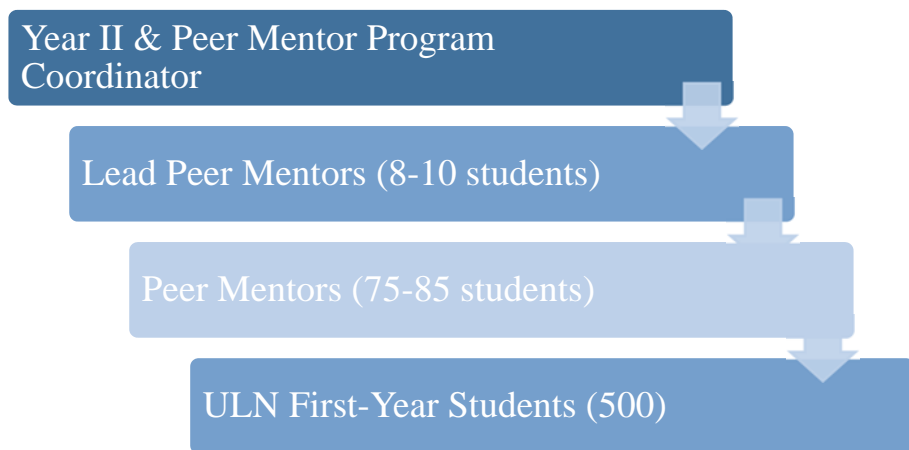

Figure 1. *ULN Tiered Mentor Model*

After completing one year as a mentor students have the opportunity to apply to become a lead mentor (8-10 positions available). Lead mentors are returning peer mentors who assume additional training to support the peer mentor coordinator (Year-two ULN Coordinator) and to learn to train their peers on the numerous training topics to deliver to the first-year ULN students. The Lead mentor training also takes place weekly. Serving as a mentor or lead mentor

meets the program requirement of engaging in experiential learning. All ULN experiential learning opportunities give returning students a greater level of responsibility; therefore, lead mentors take on the added responsibility of mentoring a group of six to eight ULN peer mentors. Lead mentors facilitate weekly mentor-training sessions, support the coordinator, and assist staff at program events. Selection of lead mentors involves an interview process that identifies mentors who demonstrate a high level of maturity, creativity, problem solving skills, and discernment in handling challenging situations. Additionally, this year, the ULN mentor coordinator has two additional ULN interns who serve as liaisons to the peer mentor program. These are students who are interested in pursuing a career in higher education administration and whose primary role is to coordinate programming and communication between the first-year curriculum and the peer mentor programming.

Why the comprehensive program model of ULN is successful

The ULN program goes beyond traditional models of student success currently observed in higher education initiatives. The ULN model is comprehensive; it provides a four-year experience encompassing academic success through partnership with first-year academic communities, financial support in the form of a $20,000 scholarship, peer mentoring and curriculum all presented through the lens of developing leadership and professional skills. Many institutions have stand-alone academic success programs, financial aid programs, and leadership and professional development programming.

The Student Success Initiatives unit within the Provost's Office at UT Austin has demonstrated that it is possible to bring together all of the components necessary to increase student success in the creation and implementation of the ULN program. Top leadership within the Provost's Office created an institutional imperative centered on student success and increased four-year graduation rates, paired with resources to support such efforts. UT Austin and the ULN program are making significant gains in the arena of student success. This section will provide student success outcome data for UT Austin and the ULN program, insight into program best practices and challenges, necessary components for program replication, and vision of ULN.

UT Austin and ULN student success outcome data

In 2011, the overall four-year graduation rate for UT Austin was 51%, followed by a clear goal to reach 70% by the year 2017. As of fall 2016, the overall four-year undergraduate graduation rate has increased to a staggering 61% (The University of Texas Statistical Handbook, 2016). UT Austin is on track to meet its goal because of the efforts of the Student Success Initiatives team, partnered with leadership from all colleges and schools, student affairs units, and the hard work and persistence of the undergraduate students themselves. Combined efforts such as providing expansion funds to existing academic communities and success programs, creating an innovative student help desk, and the ULN program, have all contributed to the overall goal of increasing retention and four-year graduation rates. Across seven academic communities and success programs supported by expansion funds, the first-year cohorts have an average persistence rate of 92.3% (returning for their sophomore year), compared to the overall UT persistence rate of 95.1%. The 2017 ULN cohort (returning for their senior year) is at 82.4% persistence, in comparison to 85.2% for the total UT 2017 cohort (SSI Internal Report, 2016).

Additionally, while many student-success efforts at The University of Texas at Austin have focused on keeping students on track to graduate by incentivizing behaviors consistent with timely progress, the University also recognizes the role of administrative barriers to reaching the goal of graduation. To help students who run into an administrative barrier to timely graduation, the Student Success Initiatives unit created the Graduation Help Desk. Staffed by a team in the Provost's Office, the Graduation Help Desk team works alongside students to resolve conflicts affecting their goal of graduating. This includes course availability issues, petitions for transferrable coursework and other obstacles that typically prevent students from graduating. More than 500 students have been assisted since the desk opened in spring 2014. In that time, those seeking help have branched out to also include faculty, academic advisors, and other campus staff searching for ways to helps students graduate on time.

The ULN program has led to substantial student success. The average SAT score across the 2017, 2018, and 2019 cohorts of ULN students is 1123 compared to 1295 of the general entering first-year SAT score for UT Austin. The average predicted four-year graduation rate for those ULN cohorts was 38.0% compared to 56.3% for entering first-year UT Austin students, which is a difference of 18.3 percentage points. Within the first three years, the ULN program demonstrates promising results in the areas of persistence and progress towards degree. For example, data gathered in the fall of 2016 showed 93.9% persistence rate for the 2019 ULN cohort (returning after first year in college) in comparison to 95.1% for the general 2019 UT Austin class, a difference of just 1.2 percentage points. The 2018 ULN cohort returned for their third year at a rate of 85.9% in comparison to the general 2017 UT Austin class at 92.0%, a difference of just 6.1 percentage points. Furthermore, ULN students show timely progress toward the completion of their degrees. Current ULN seniors starting their fourth year, the 2017 cohort, have passed 101 hours on average compared to 106 hours passed for the total UT Austin class of 2017. Current ULN juniors, the 2018 cohort, have passed 74 hours on average as they begin their third year, compared to 77 hours for the total 2018 cohort, an average difference of just one course. As a collective effort, the ULN program has brought together institutional, academic, financial, leadership and professional development resources to create an environment to close the student success gap at the University of Texas at Austin.

ULN best practices and challenges

As a newer program, it is imperative to engage in consistent formal and informal evaluation to gain feedback and create opportunity to identify best practices and identify challenges. The best practices and challenges for ULN fall into organized into three levels: student, organizational, and institutional. This section highlights those three levels and provides specific examples of best practices and challenges.

Student level. At the student level, ULN as a program has sought to bring resources together to provide a holistic four-year experience, create an environment of high support and challenge, and of role-modeling and encouraging the development of growth-mindset (Dweck, 2006). Teaching and encouraging a growth-mindset is a vital best practice within ULN. In particular, our programming and curriculum center on this concept, highlighting the idea that skills and abilities are not innate. With hard work, thoughtful practice, and individual reflection, you can greatly

improve your skills and abilities in countless areas. Additionally, the program's curriculum has been informed by a collection of research brought together in Paul Tough's text (2012), *How Children Succeed.* This meta-analytic text brings together the importance of identifying and training on topics such non-cognitive skills (Heckman, 2001), grit (Duckworth & Quinn, 2009), and motivation (Mischel, Shoda, & Rodriguez, 1989). Staying current in research allows our programming to remain nimble to meet student needs. The training curriculum for ULN peer mentors centers on these major concepts and ideas, which leads to reinforcement of the messages and content presented in the leadership speaker series.

Students understand that the institution and program have high expectations for them. From day one in the program, students are recognized as leaders on our campus. The Senior Vice Provost, Dr. David Laude tells first-year students each year, "Look to your right, look to your left…you are looking at the leadership of the state of Texas." Hearing this from such a high level of authority makes our students feel pride that they are a part of unique community, one that is preparing them for a lifetime of leadership and success both in and out of the classroom. ULN embraces the motto of "Leading from where you are." This phrase encourages students to engage in leadership now. Leadership does not require a specific title, status, or age. There are always those above you, next to you, and behind you that are watching and waiting to see how you will lead. ULN students are not future leaders, they are leaders. ULN peer mentors bring this idea to life as they engage in leading as current students. They are actively taking advantage of training opportunities and time to interact with their mentees creating an environment where being a leader is natural, expected, and appreciated.

Just as best practices are important to acknowledge, an examination of challenges at the student level must also occur. Our greatest challenge arises in the large number of students ULN serves (up to 2,000). Tracking program requirements like attendance, community service hours and experiential learning (10 hours per week) is a considerable task. Each year, as the program has expanded to include a new class, our level of staffing and internal tools and systems have been pushed to their limits. For example, in year one (500 students total), taking attendance at the weekly leadership speaker series was initially addressed by using the i-clicker remote analytics tool. While the tool was effective, we were concerned about the student cost of purchasing the technology and cost for annual use. In the second year of the program, we utilized the expertise and local talent of biology professor Dr. Sarathi Sathasivan. Dr. Sathasivan and his team created the Squarecap mobile application, which we began using as our attendance and analytics tool. Through exploration of different types of analytics tools, we determined that Squarecap best met student needs and compatibly requirements to interface with our learning management system, Canvas. Although challenging in terms of learning new technology, Squarecap met the needs of our students (low cost, ease of use, and mobile access) and our organizational needs (high level of technical support, robustness of the tool, and accessing real time data) making it the best fit for our program. Additionally, feedback from our peer mentors was essential in gaining an understanding of the student perspective in utilizing these learning analytic tools as well. They were able to help us refine the use of these systems within the peer mentor weekly sessions as well as in regards to taking attendance and polling the group to check for understanding on content.

Organizational level. At the organizational level, a key best practice for ULN lies in creating a staff model to meet student-success objectives set by the institution in addition to meeting the needs of students served within the program. With great intention, the organizational structure of ULN was created with specific positions with clearly defined roles and responsibilities. Our current organizational structure includes a director, an experiential learning program manager, four cohort coordinators (one professional: 500 students), an administrative associate, and one graduate research assistant. The program model introduces the idea, and supports the benefits, of having multiple mentors (informal and formal). As students enter the program they work with our first-year coordinator, and as they transition from year to year, they work with a new coordinator trained to meet the needs of second-, third-, or fourth-year students. Therefore, at the end of a student's time in ULN, their professional network will include four cohort coordinators, peer mentors, campus partner supervisors, and other experiential learning supervisors. Staff and student thrive in the work environment, due to the careful creation of specific roles, with clear directives and boundaries. In regards to the human resources perspective, this simplifies the hiring process and helps the selection committee zero in on the job requirements and the skills, talents, and abilities needed to meet those job requirements

As a team, the staff also engages in quarterly (at a minimum) team workdays held outside of the office (on or off-campus location) to focus on finding solutions to challenges facing our students, staff, or organization. These workdays also support an environment of problem-solving, open-dialogue, vulnerability, trust, and critical thinking. They also provide time to engage in team-building activities that further challenge and support the growth of our organization at the team level. Providing opportunity for meaningful professional development (attending/presenting at conferences, engaging in workshops, etc.) is also essential to maintaining a team dynamic and providing opportunities for on-going learning that will further equip staff in their roles. Peer mentors also experience the importance of taking time to train, prepare, and to spend time team building. At the beginning of each semester, peer mentors attend an interactive day of training facilitated by the ULN staff and Lead mentors. This training focuses on reminding peers of their critical role in ULN, preparing them with training and tools to be successful, and creating deeper bonds within the peer mentor community.

The most prevalent challenge faced at the organizational level centers on staffing capacity and staff care. One challenge is found in the large number of students to each cohort coordinator. Ideally, the cohort coordinators would know their students well. However, within the span of an academic year it is not physically possible to meet individually with each student, in addition to completing other job duties. Coordinators are comparable to case managers in many ways. They are professionals trained to operate in triage mode. When coordinators meet with a student, they utilize active listening training to target identifiable problems (typically nonacademic challenges affecting academic performance) and to recommend resources to meet those surface-level issues. Then, they continue a line of questioning to identify what might be at the root of these surface-level issues (e.g. missing class, depression, poor time management). Our coordinators are not trained counselors; however, because they have built a rapport with students, they are able to create a space in which students share major life challenges/experiences they are facing (e.g. sexual assault, mental-health issues, depression, anxiety, family financial stress, etc.). Furthermore, that shared trust between the student and coordinator allows our team to assess all of the issues presented and to connect students with staff and resources on campus that will get

them back on track academically and personally. Often times, our peer mentors are our first line of defense. Because of the frequency with which peer mentors interact with first-year students, they are the first to notice trends and changes in student engagement. Peer mentor training instructs them to notify their lead mentors and/or peer mentor coordinator of such changes, which leads to faster connection to resources and help for the student. Moreover, these interactions are necessary, valuable, and intense. It is important to ensure that staff members and peer mentors have access to resources to de-stress, share challenges they are facing, and to know when to ask for guidance when working with a particularly difficult student situation. This environment is created for our peer mentors in their weekly mentor training sessions.

Institutional level. It is only through institutional support and organization that ULN as a program went from a vision to implemented reality. At the institutional level, through structures within the influential leadership and resources provided by the Provost's Office and the Graduation Rate Champion, ULN as an incentive-based scholarship program is able to bring together units from across campus to provide a four-year experience that results in student success. ULN depends on collaboration from many areas in order to function: Student Success Initiatives in the Provost's Office, academic and success programs, leadership from all colleges and schools, the Office of Admissions, the Office of Financial Aid, Development, the Division of Diversity and Community Engagement, the Study Abroad Office, Undergraduate Research, as well as over 250 campus partners who supervise hundreds of ULN on-campus interns, and off-campus partners. Through the leadership of the Provost's Office, all of these constituents have come together to collectively meet the institutional goal of a 70% four-year graduation rate at UT Austin. The foundational belief that student success is of critical importance to the mission of the institution, and having that belief voiced and supported by the platform of the Provost's Office has been critical to our success as a program.

Collaboration across departments and units is essential in meeting major student success goals. The directors of all of the academic communities and success programs who received expansion funds from Student Success Initiatives, the director of ULN, and the associate vice provost for student success, all meet weekly to communicate and collaborate. As a team, this group works to ensure smooth recruitment and placement of incoming students in academic communities and success programs, coordinate programming in an effort to prevent program overlap and content redundancy, and discuss current student issues and how their programs can address those challenges or bring attention to them. This collaboration results in everyone knowing how each program works and the populations they serve. It also creates a shared network of professionals, who work together to ensure that no students fall through the cracks. UT Austin is a decentralized campus; however, when it comes to student success they are leading the way by collaborating across units to create an environment conducive to producing student success.

Challenges at the institutional level include establishing permanent funding for ULN. With recurring costs of up to $10 million in scholarship dollars, creating and maintaining varying streams of funding is critical. As discussed previously, ULN scholarship dollars are currently funded through tuition set-aside, significant gifts like the Houston Endowment, and some permanently endowed funds. The external relations team within Student Success Initiatives is working diligently to explore and create new sources of funding for programs like ULN as well as academic communities and success programs.

Replication and future vision for the program

As ULN is now a four-year, fully staffed program with demonstrated success, the question of replication is commonly asked as representatives from other institutions visit UT Austin to learn more about this innovative model. ULN was created to function at a large, public, tier-one research university; however, the ULN program model could be tailored to meet the needs of a variety of institutional types (private/public, research/teaching, etc.) as long as a core group of program components are maintained.

First, replication of the ULN model can only be successful at institutions that demonstrate a clear commitment to student success and increasing four-year graduation rates, specifically for diverse student populations. Second, a commitment to collaborative leadership across units, colleges, programs, etc. is essential to implementing the ULN model. This model relies on collaboration at the executive administrative level (president, provost, deans) in addition to the programmatic level (program directors, service unit directors, diversity unit, etc.). For successful implementation to occur, the institution must gather its key leadership and come together to create a comprehensive student success plan.

As mentioned above, the ULN model at UT Austin was not intended for exact replication; however, the core components of the model that should remain intact aside from institutional and leadership commitment include:
- Student financial support over four years (scholarship),
- Focus on four-year graduation,
- First-year academic support (provided through academic communities and success programs or initiatives),
- Intensive first-year leadership and professional training with ongoing training opportunities in the second- through fourth-years,
- Second-year on-campus internship opportunities,
- Service component,
- Mechanism for self-reflection over four years, and
- Institutional data analysis support.

ULN as a team is working to create clear outlines for the program structure, components, curricula, and resources required for implementation. These resources will be useful in engaging with institutions wishing to create a ULN-like program to increase student success on their campuses.

As a comprehensive program model, ULN is moving the needle of student success at the University of Texas at Austin. ULN is remarkably unique with a vast array of invested stakeholders: university leadership, students, staff, faculty, and campus and community partners. This broad collaboration results in the most extraordinary collective effort to create a shared sense of community and commitment to undergraduate student success. ULN demonstrates how highly trained undergraduate peer mentors are critical. They extend the organization's ability to meet and identify student needs, create community, and deliver important content leading to leadership and professional development for first-year students. Additionally, peer mentors gain

valuable transferrable skills because of their experience, which increases their post-baccalaureate marketability in regards to entering the workforce or graduate and/or professional school arena.

ULN is thriving, entering new territory as it prepares fourth-year students for graduation and their path beyond the University of Texas at Austin. The "Network" of ULN is being constructed as we graduate our first class and continue to build relationships with partners in industry, graduate and professional schools, and service paths like the Peace Corps and Teach for America. This innovative and holistic approach to student success is working, and we look forward to seeing our students and alumni thrive, as well as partnering with other institutions who are committed to innovative approaches to student success.

References

Astin, A. W. (1977). *Four critical years: Effects of college on beliefs, attitudes, and knowledge*. San Francisco, CA: Jossey-Bass.

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 297-308. Retrieved from http://www.ydae.purdue.edu/lct/hbcu/documents/Student_Involvement_A_Developmental_Theory_for_HE_Astin.pdf

Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco, CA: Jossey-Bass.

Allen, W. R. (1985). Black student white campus: Structural, interpersonal, and psychological correlates of success. *Journal of Negro Students, 54*(2)*,* 134-137. doi.org/10.2307/2294928

Allen, W. R. (1992). The color of success: African-American college student outcomes at predominantly white and historically Black public colleges and universities. *Harvard Educational Review,* 62, 26-44. doi.org/10.17763/haer.62.1.wv5627665007v701

Baum, S., Ma, J., & Payea, K. (2013). *Education pays 2013*. The College Board.

Carnegie Foundation. (2014). Institution *profile: The University of Texas at Austin*. Retrieved from http://carnegieclassifications.iu.edu/lookup/lookup.php

Chickering, A. W. (1969). *Education and identity*. San Francisco, CA: Jossey-Bass.

Cigarroa, F. (2011). *A framework for advancing excellence through the University of Texas System. As presented at the meeting of the Board of Regents, May 12, 2011*. Retrieved from http://www.as.utexas.edu/bov/resources/05.Cigarroa-advancing_excellence_may2011.pdf

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*(5), 300-314. Retrieved from http://www.psychosomaticmedicine.org/content/38/5/300.full.pdf+html doi.org/10.1097/00006842-197609000-00003

Cokely, K. (2000). An investigation of academic self-concept and its relationship to academic achievement in African American college students. *Journal of Black Psychology, 26*(2)*,* 148-164. doi.org/10.1177/0095798400026002002

Coles, A. (2011). The Role of Mentoring in College Access and Success. Research to Practice Brief. *Institute for Higher Education* Policy.

College Reading and Learning Association. (2015). International Mentor Training Program Certification. Retrieved from: http://www.crla.net/index.php/certifications/imtpc-international-mentor-training-program

Cuyjet, M. J. (1997). African American Men on College Campuses: Their Needs and Their Perceptions. New Directions for Student Services, 1997: 5–16. doi.org/10.1002/ss.8001

Dahlvig, J. (2010). Mentoring of African American Students at predominantly white institutions (PWI). *Christian Higher Education, 9*(5), 369-395. doi.org/10.1080/15363750903404266

Dweck, C.(2006). *Mindset: The new psychology of success*. New York, NY: Ballantine Books.

Duckworth, A., Quinn, P. (2009). Development and Validation of the short grit scale (Grit-S). Journal of Personality Assessment, 91(2) doi.org/10.1080/00223890802634290

Engle, J., & Tinto, V. (2008, November). *Moving beyond access: College student success for low-income, first-generation students*. Retrieved from Pell Institute for the Study of Opportunity in Higher Education website: http://files.eric.ed.gov/fulltext/ED504448.pdf

Flowers, L. & Pascarella, E. T. (1999). The effects of college racial composition on African American college students' orientations toward learning for self-understanding. *Professional Educator, 22(1)*, 22-47.

Fleming, J. (1984). *Blacks in college: A comparative study of students' success in Black and in White institutions*. San Francisco: Jossey-Bass.

Fry, R. (2011). *Hispanic college enrollment spikes, narrowing gaps with other groups: 24% growth from 2009 to 2010*. Pew Research Center*, (*August), 1-29. Retrieved from www.pewhispanic.org.

Goodman, J., Schlossberg, N. K., & Anderson, M. L. (2006). *Counseling adults in transition* (3rd ed.).New York, NY: Springer Publishing Company, Inc.

Hansen, R.N. & Johnston, M.C. (1986, September). College students as paraprofessional career specialists. Journal of Career Development, 13(1), 18-29. doi.org/10.1177/089484538601300103

Harris, V. (2012). The effectiveness of African American and Hispanic mentoring programs at predominantly white institutions. *Center for Higher Education, Working paper series, Ohio University,* 1-15.

Heckman, J. & Rubinstein, Y. (2001 May). The importance of non-cognitive skills: Lessons from the GED testing program. *American Economic Review*, 91(2), (May, 2001). doi.org/10.1257/aer.91.2.145

Kram, K., & Isabella, L. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of Management Journal, 28*(1), 110-132. doi.org/10.2307/256064

Mischel, W., Shoda, Y., & Rodriguez, M. (1989). Delay of gratification in children. *Science*, 244(4907), 933-938. doi.org/10.1126/science.2658056

Moore, K. M., & Amey, M. J. (1988, Winter). Some faculty leaders are born women. *New Directions for Student Services, 1998*(44), 39-50. doi.org/10.1002/ss.37119884406

National Center for Education Statistics. *Integrated Postsecondary Education Data System (IPEDS)*. Retrieved from: http://nces.ed.gov/

Pascarella, E. T., & Terenzini, P. T. (1977). Patterns of student-faculty information interaction beyond the classroom and voluntary freshman attrition. *Journal of Higher Education, 48*(5)*,* 540-552. doi.org/10.2307/1981596

Pearson, R.E. (1990). *Counseling and social support: Perspectives and practice.* Newbury Park, CA: Sage Publications.

Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years*. New York, NY: Holt, Rhinehart, and Winston.

Schlossberg, N. K. (1984). *Counseling adults in transition*. New York, NY: Springer publishing company.

Sipe, C.L. (1996). Mentoring: A Synthesis of P/PV's Research: 1988-1995.

Smith, J.L. (2014). Undergraduate peer mentors serving underrepresented students at a predominantly white institution (Doctoral dissertation).

Strayhorn, T. L., & Terrell, M. C. (2010). *The evolving challenges of Black college students new insights for policy, practice, and research.* (1 ed., pp. 1-4). Sterling, VA: Stylus Publishing, LLC.

Thomsen, J. (2015). Search for Success. Inside Higher Ed. Retrieved from www.insidehighered.com/news/2015/08/10/officials-11-partnering-universities-share-strategies-helping-students-graduate

The University of Texas at Austin. (2016). *Statistical Handbook:* Student characteristics*: Fall 2016*. Retrieved from http://reports.utexas.edu/statistical-handbook.

The University of Texas at Austin. (2015). *Statistical Handbook: Student* characteristics*: Fall 2015*. Retrieved from sps.austin.utexas.edu/sites/ut/IRRIS/Pages/Stat-Handbook.aspx

The White House Office of the Press Secretary. (2009). Remarks at Macomb Community College in Warren, Michigan. *Compilation of Presidential Documents*. Washington, DC: Office of the Federal Register. Retrieved from www.gpo.gov/fdsys/pkg/DCPD-200900565/pdf/DCPD-200900565.pdf

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125. doi.org/10.3102/00346543045001089

Tough, P. (2012). *How children succeed*. New York, NY: Houghton Mifflin Harcourt Publishing Company.

Tough, P. (2014). Who gets to graduate, New York Times. Retrieved from www.cfa.harvard.edu/cfawis/new_york_times.pdf

PBS Newshour (2015, August 7). *Why Poor Students Drop Out Even When Financial Aid Covers The Cost*. Retrieved from http://www.pbs.org/newshour/bb/poor-students-drop-even-financial-aid-covers-cost/

U.S. News and World Report. (2016). *Best colleges in 2015*. Retrieved from http://colleges.usnews.rankingsandreviews.com/best-colleges/rankings/national-universities

UT News. (2012). Graduation Rate Champion Appointed at The University of Texas at Austin [Press release]. Retrieved from http://news.utexas.edu/2012/05/08/graduation_rate_champion

Vaux, A., Phillips, J., Holly, L., Thomson, B., Williams, D., & Stewart, D. (1986). The social support appraisals (SS-A) scale: Studies of reliability and validity. *American Journal of Community Psychology, 14*(2)*,* 195-219. doi.org/10.1007/BF00911821

Walpole, M. (2003). Socioeconomic status and college: How SES affects college experiences and outcomes. *The Review of Higher Education*, 27(1), Fall, 45-73. doi.org/10.1353/rhe.2003.0044

Author information

Jennifer Smith serves as the Director of the University Leadership Network (ULN) at The University of Texas at Austin. As part of the university's Student Success Initiatives (SSI) unit, ULN was created to increase four-year graduation rates. She was appointed to provide a unique student experience based on leadership, professional development, and experiential learning combined with the opportunity to earn a significant scholarship. Jennifer was instrumental in the development and implementation of a number student success initiatives at UT Austin, including the University Leadership Network, the Texas Interdisciplinary Plan Mentor Academy, and the College of Natural Sciences Peer Leader Academy. Dr. Smith received both her Master of Educational Administration and Doctor of Educational Administration from the University of Texas at Austin. Jennifer's research and practice center on leadership, incentive-based scholarships, undergraduate peer mentoring, and the experiences of underrepresented undergraduate populations.

Jennifer L. Smith, PhD
Student Success Initiatives
The University of Texas at Austin
Flawn Academic Center (FAC 334)
2304 Whitis Avenues
Austin, TX 78712
E-mail: jlsmith@austin.utexas.edu
Fax: 512-232-2800

Supporting college students through peer mentoring: Serving immigrant students

Matthew Kring

Abstract

Metropolitan State University of Denver (MSU Denver) Immigrant Services program enlists the support of peer mentors to provide holistic support to the institution's immigrant, refugee, and English Language Learner (ELL) populations. These peer mentors are highly specialized in their student employee role and are trained to provide academic and personal support. Peer mentors support students with such issues as English writing support, scholarship applications, and connection to immigration resources. The Immigrant Services program at MSU Denver could not function without this student employment position. The Student Academic Success Center at the Metropolitan State University of Denver (MSU Denver) hosts a variety of programs that support students in persisting through college. These programs scale from supporting the student population at-large to targeting specific populations that have been identified to need specialized support. The Immigrant Services Program provides support to a specific population of students at MSU Denver that includes immigrants, refugees, undocumented and Deferred Action Childhood Arrival (DACA) students, and English Language Learners (ELL). Highly trained peer mentors work with students individually and as a group to support their transition to college and onward through graduation.

Keywords

Refugee, DACA students, English language learners, support center

Background

Metropolitan State University of Denver shares the Auraria Campus in the heart of downtown Denver, Colorado. Two other institutions, the University of Colorado Denver, and the Community College of Denver, share this space and a select number of its resources. While this campus serves approximately 45,000 students, 20,000 attend MSU Denver specifically. The institution is a modified open-enrollment school guaranteeing admission to students over the age of 20 with a high school diploma or GED equivalent. MSU Denver (2016) is the most racially and ethnically diverse four-year institution in the state of Colorado. Over 90% of the students served here are in-state students, with a majority coming from the Denver metropolitan area.

MSU Denver started in 1965, and a key piece of the MSU Denver (2016) mission states that the institution provides access to education. As the institution continued to grow and serve the needs of the Denver and Colorado communities, many students from immigrant and refugee programs enrolled in college, earning access to education that many thought would never be afforded to them. To better serve these students, the Immigrant Services Program was created in 1980. For

the first 30 years of the program, Patti Lohman, an instructor in the English department teaching English as a Second Language, started the program to specifically help students with English Language Learner needs. For the next three decades she would lead the program. The program served approximately 60-80 students each semester, walking students from their admissions process all the way through graduation. This program has located in a number of different departments on campus including, the English department, the Office of Admissions, and finally the Student Academic Success Center where it currently resides.

Immigrant Services is a key piece of the main retention program on campus: the Student Academic Success Center. This center serves all students and provides support through a variety of methods. Tutoring is available to all students and is provided free of charge. The Supplemental Instructions program provides peer leaders to help students in particular courses learn how to be better students. The Scholars Success program supports students receiving a scholarship to succeed in their courses and maintain their scholarship eligibility. The Brother to Brother program supports male students of color on campus through leadership, social engagement, academic support, and community involvement. The Fostering Success program provides comprehensive supports, similar to Immigrant Services, but does so for emancipated foster youth. The International Student Support initiative works with students on campus with F1 and J1 Visas. Finally, the Transfer Student Success provides support and community for the transfer student population on campus, which is typically 65% of all MSU Denver students.

All of the aforementioned programs work congruently to retain MSU Denver students and help them persist through graduation. This organizational structure allows the students in the Immigrant Services program easy and direct access to these programs such as transfer course credit approval or joining the Brother to Brother program. The target goal of these programs is to retain 80% of students. This structure allows the sharing of financial and staff resources under one center. For example, staff within the Student Academic Success Center have their specialties, but are cross-trained to assist students in other programs when those program staff are away or otherwise occupied. Student staff can be shared as well. For example, sometimes tutors are able to come from the tutoring center and share their expertise with students in the Immigrant Services program. Because this is all within one center, there is no adverse effect to program budgets or resources. Also, on a budgetary theme, being part of a larger center allows for budgeting flexibility within the center to allocate financial resources to the program as needed instead of a defined, fixed budget.

The Student Academic Success Center reports to the Associate Vice President of Undergraduate Studies, who oversees non-academic units. Other offices in this reporting line includes the Career Center, Access Center (serving students with disabilities), the Center for Applied Learning (internships and service learning), International Studies, First Year Success, Academic Advising, and the Center for Individualized Learning (Individualized Degree Programs). Again, this reporting line assists with access to services for students in the program.

Immigrant services program at MSU Denver

Immigrant Services serves over 300 immigrant, refugee, undocumented, Deferred Action Childhood Arrival (DACA) students, and ELL students. The purpose of this program is to

provide the special and individualized support that traditional support programs, such as tutoring, a writing center, and academic advising, cannot support. This support is provided by a well-trained staff that include two professional staff members and usually three to five peer mentors.

The unique needs of these students include support in navigating MSU Denver's admissions criteria. Admission is guaranteed for twenty-plus year old students with a GED or high school diploma. Some students in this program may need support in passing Accuplacer exams in English and Math that prove they are college ready before they can take college-level coursework. Immigrant Services provides tutoring assistance to prepare for these exams through the peer tutors in the tutoring center.

Once admitted, and placed into college level course work, this population of students need support in navigating a number of administrative processes that can become more complex due to undocumented, immigrant, or refugee status. For example, prior to 2012, MSU Denver considered undocumented students to be out-of-state students and required them to pay out-of-state tuition rates. However, since then, MSU Denver created a special tuition classification for undocumented students that lived in Colorado. In 2013, the Colorado legislature passed the Asset Bill, granting in-state tuition to undocumented students that graduated from a Colorado High School and had attended three years prior to graduation (Cotton, 2013). The Immigrant Services program helps students apply for this special tuition designation.

Paying for school as an immigrant, refugee, or undocumented student can be daunting. These students typically need support in filling out the FAFSA and getting the required documentation. In addition, undocumented students are not eligible for federal financial aid, and many students at MSU Denver fear filling out the FAFSA, due to their immigration status. To help alleviate this, MSU Denver created the Dreamer Application for Institutional Aid (DAIA). This allows students to apply and receive institutional and state aid that is available to them without requiring the FAFSA. Also, Immigrant Services helps students to apply for a number of private scholarships that are also available locally and nationally. Recently, the Student Academic Success Center at MSU Denver has partnered with University Advancement to raise scholarship funds for these students. Financial issues is one of the top reasons students at MSU Denver do no persist to graduation. For students in this immigrant services program, this is often magnified by the limited resources available to them as a result of their immigration status. Through alternative methods of funding, MSU Denver is able to help support many of these students financially, improving their educational attainment.

As these students matriculate through college there are many academic support needs that are critical to their success. Support is provided for English Language Learners by Immigrant Services. To serve these students one-on-one and correct common ELL writing errors require staff that is specifically trained. In addition, these students are connected to a network of , who assist them individually with difficult course work including, but not limited to, Math, Science, Engineering, Business, Social Sciences, Communication and Arts and Humanities.

Finally, MSU Denver has found that this student population, like most, needs social engagement and a sense of belonging. MSU Denver's Immigrant Services program provides activities and spaces for this to happen. In fact, these students have a designated "safe" study space within the

Student Academic Success Center to study and congregate. Furthermore, Immigrant Services also leads and supports programming to confront social and political issues, such as immigration reform, DACA rights, and state-issued drivers' licenses for undocumented people.

In the past two years, MSU Denver has committed additional support, including financial and human resource, to help enlarge the Immigrant Services program from serving 80 students to over 300 and growing. Professional program staff include a full-time coordinator and a full-time specialist. The coordinator has a Master's degree in Linguistics and provides direct tutoring to students, in addition to academic and personal advocacy. The coordinator supervises a full-time specialist who is considered more of a student-affairs generalist. he person in this position meets with students, plans events and programs, assists students with registration, connects with campus and community resources, and helps identify financial support. To support the professional staff, the coordinator hires, trains, and supervises a staff of five peer mentors.

While the professional staff of Immigrant Services are critical to serving this student population, it is also true that MSU Denver could not serve over 300 students without hiring a well-trained, capable peer mentor staff. The Student Academic Success Center as a whole is dependent on a student staff of around 150, when counting tutors, supplemental instructors, front desk representatives, and peer mentors. Immigrant Services is one of many programs that use student peer mentors to provide direct services to students. Brother to Brother, Scholars Success, and Transfer Services also follow a similar model. Student staff are an extremely cost effective way to serve students on increasingly tighter budgets at institutions. Some staff are hired with funds from financial aid work study programs available, while others are paid out of the Student Academic Success Center program budget. This money is supported directly from tuition and dispersed through the Division of Academic and Student Affairs. This is not a program supported by student fees.

The Immigrant Services program at MSU Denver works to recruit of student staff that reflect the population it serves. For example, the program hires students who are here under the previously mentioned Asset tuition bill. Some students are under DACA status or are naturalized immigrant or refugees. The staff of the SASC emphasizes hiring of peer mentors that can, to some extent, empathize with the students they are serving. Having gone through similar processes at the school themselves, these students are in a position to provide detailed and accurate information. Also, students are recruited from the English linguistics department, as they are uniquely skilled to peer-tutor on the ELL needs of the student population, with support from the program coordinator.

Once a student is hired as a peer mentor they are trained in specifically supporting the needs of the immigrant, refugee, undocumented, DACA, and ELL students they serve. This includes understanding different immigration and refugee status as it pertains to state and national residency. Training covers focuses specifically on academic difficulties encountered by these students, specifically writing. Also, the Counseling Center on Campus provides a campus-wide peer mentor training at the beginning of the year. The coordinator of the program provides ongoing supervision and feedback for the students to be successful and improve on their service to students.

Lessons learned

Immigrant Services is a successful and growing program at MSU Denver because of the organizational structure of expert professional staff, combined with dedicated well-trained peer mentors. It is critically important to for this specific program to have a coordinator who understands English Language Learner needs, but also the ability to act as a student affairs generalist, while keeping informed on local, state, and national issues that have an impact on this student population. Equally important, it is important to have a student staff that can connect with students, share common experiences, and build a community of learners.

Consistently over the past several years, Immigrant Services boasted a fall to fall semester retention rate between 80-90%, even while tripling the number of students served. The most recent fall to fall semester retention rate from the 2015 group of students served was 83.9% Comparatively, MSU Denver's fall to fall semester retention rate typically falls between 65-70%. How does Immigrant Services help their students out-perform the student population at-large, while knowing this to be typically a more at-risk student population? The commitment of staff resources to provide direct, intentional, and effective services helps this population find success at this institution. Students have access to staff regularly, whether it is their peer mentor or one of the professional staff members. Most importantly, the institution from senior leadership on down has a stated commitment to serving these students and providing access to education for all.

Peer mentoring works at MSU Denver in the Immigrant Services program due to a number of factors. One important factor is strong leadership from the program coordinator. The coordinator and specialist are experts in serving this population of students and their needs. Mentoring also works because the peer mentors have clearly defined roles. They each have a case load of students whom they are asked to provide outreach and support. They are trained on the how-to of handling some of the unique situations that arise when working with students. However, peer mentors are not asked to provide support for which they are not trained, or services that which could be considered an inappropriate level of work to ask from a paraprofessional.

Students hired to be peer mentors also must possess the maturity to handle information of a sensitive nature. This is especially true when talking with students about their own or family immigration students. Many undocumented students live in fear that they, or members of their family, will be deported. Furthermore, peer mentors have access to other sensitive information, such as student grades and financial information. MSU Denver therefore requires student workers to sign confidentiality agreements and acknowledge they will take precautions to protect students FERPA rights. MSU Denver trusts the Immigrant Services peer mentor staff with this information, as it is critical to help the students assigned to them. A peer mentor must know if a student needs additional financial resources, or additional support in their classes. Students hired for this position are given a high level of responsibility and trust.

Furthermore, at MSU Denver, peer mentors are given opportunities to maximize their strengths and talents as student workers. For example, currently within Immigrant Services, one peer mentor is earning her degree in Linguistics. She is ideally suited to work with students in need of ELL support on their writing and speech assignment. Another peer mentor is an excellent event planner and provides opportunities for social engagement as well as events that give students a

forum to discuss issues pertinent to them. All Immigrant Services peer mentors excel at providing academic support and advocacy, helping students create study plans to succeed in their courses.

This program is replicable on institutions that have a large immigrant, refugee, undocumented, DACA and ELL student populations. Budget considerations must include the ability to pay full time salaries for at least one coordinator position, and to pay student staff at an hourly rate commensurate with peer mentors, tutors, etc., in similar programs on campus. Additional professional staff positions can be considered according to size of population served. When possible, efforts should be made to work with the Office of Financial Aid to help students receive work-study employment. This will help them to manage budget expenditures, especially when the program is combined with other programs within a center.

Beyond budget and staff support, another important consideration is space. This is another resource that is often competitively sought. From an equity perspective, MSU Denver works to make available spaces specific to students that may be considered vulnerable or at-risk. This can be difficult to navigate, especially as people look for spaces available for all students or question why a particular group is given a specific space. From an equity lens, MSU Denver provides a space for our Immigrant students, as there are many places for these students that do not feel safe or welcoming. Furthermore, peer mentors also need space to work, and privacy to hold personal conversations with students. It can be very difficult to get a student to open up about their immigration status or finances in an open area. MSU Denver works to create work environments where one on one conversations can take place confidentially.

Supporting immigrant students, especially those that may have an undocumented immigration status can be controversial for some. In setting up this program one must be prepared for criticism in serving this population of students. Some will not see the benefit of educating some of these students, and will call into question the appropriateness especially at state-supported schools. At MSU Denver, these students are viewed as a vital part of the Denver community, and serving these students meets MSU Denver's mission of providing educational access to the city of Denver and surrounding cities and counties.

MSU Denver is committed to serving this population of students, now and into the future. The past few years of the program have seen growth in number of professional support staff from one to two, number of peer mentors from one to five, and number of students supported from eighty to over three hundred. Continued growth of this program is expected, especially considering that this is a growing population in the Denver Metro area (Denver Public Schools, 2015). While serving these students and encouraging their educational attainment is important, institutions must also acknowledge that state and federal laws and decisions have an impact on students' desire and ability to complete school. Therefore, program leadership must continue to have strong ties to community and awareness of how public policy affects the students served here. In the future, it will also be important to consider resources and money that can directly support students such as grants and scholarships. Relationships with university fundraisers and donors alike are a key piece to raising funds that students can use to complete their education.

As the program continues to grow and expand, peer mentors will be a vital part of supporting an increasing number of students. The Student Academic Success Center will need to consider increasing budgetary support for hourly student workers. While this may affect budgetary support from other programs, it is important to continue the support and expansion of a program that consistently retains and graduates students at a rate that is above the institutional average.

Conclusion

Peer mentoring is a critical component of the educational experience at MSU Denver for many students involved in academic support programs, but especially those served by the Immigrant Services program. When implemented with a clear structure of training, duties, and understanding of student skill level, these programs can be highly successful in helping specific student populations persist year to year and continue to graduation. Hiring qualified students for these roles is necessary. If peer mentors also reflect the population served, it can be a value added bonus in practicing empathy. Peer mentoring also supports the notion that institution must find fiscally responsible ways to serve students. In times of budget constraints, hiring, training, and supervising student staff, can be an alternative to adding professional staff as long as work responsibilities are monitored appropriately. Peer mentoring is a valuable student support model and will be a key piece of supporting students at MSU Denver now and in the future.

References

Cotton, A (2013) Colorado governor signs bill for illegal immigrants' in-state tuition. *The Denver Post.* Retrieved from http://www.denverpost.com/2013/04/29/colorado-governor-signs-bill-for-illegal-immigrants-in-state-tuition/

Denver Public Schools (2015) *October Count Report*: *2015 English Language Learners.* Retrieved from:
http://planning.dpsk12.org/wpcontent/uploads/2015/12/Website_EnrollmentReport_ELL_2015.pdf

MSU Denver (2016) *About MSU Denver.* Retrieved from: http://msudenver.edu/about/

Author information

Matthew Kring is the Director of the Student Academic Success Center at the Metropolitan State University of Denver. He has worked in the center for over seven years and worked in higher education for fifteen.

Matthew Kring
Student Academic Success Center
Metropolitan State University of Denver
890 Auraria Parkway
Denver, CO 80204
E-mail mkring@msudenver.edu
Telephone 303-352-7165
FAX 303-352-3773