

# Peer Mentor Impact on Student Success

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## **Research Question**

Primary question: What impact do peer mentors have on students' success?

Related subquestions:

- Do peer mentors help students develop social connections/support?
- Does that social support impact student success?
- Do mentors have an emotional impact on how students perceive their educational experience?

We would also be interested in seeing how programs at other institutions facilitate interaction between students and mentors. Do they put them in the classroom, are they part of orientation, are students required to meet with them, etc. Also, where are the mentors housed in the institution and how their location relates to what they do and how they do it.

## **Executive Summary**

### **Benefits for Mentees**

The literature on peer mentoring in higher education is unequivocally positive about peer mentoring. Researchers have found a number of benefits for mentees enrolled in these programs. These benefits include increased retention (particularly for women in STEM programs), better acclimation to the university world, improved study skills, increased involvement in campus activities, and a greater sense of belonging ([Ashman & Colvin, 2011](#); [Bonin, 2016](#); [Cornelius, Wood, & Lai, 2016](#); [Dennehy & Dasgupta, 2017](#); [Flores & Estudillo, 2018](#); [Spaulding et al., 2020](#); [Yomtov et al., 2017](#)).

Although several of the researchers in this review looked at peer mentoring programs for first generation students, women students, or students of color, [Bonin \(2016\)](#) found that “Even traditionally successful students appreciate the assistance and availability of peer mentors in their classroom” (p. 6). [Mattanah et al., \(2010\)](#), however, noted that these benefits might take a few semesters to materialize.

### *Social Impact*

The majority of the articles in this review identified a number of key social benefits for students in peer mentoring programs ([Bonin, 2016](#)). Mentors introduce mentees to each other at campus activities, helping their mentees to make important social connections that foster a sense of connectedness to campus and alleviate feelings of loneliness ([Flores & Estudillo, 2018](#); [Mattanah et al., 2010](#); [Moschetti et al., 2018](#); [Young & Cates, 2005](#)). [Plaskett et al. \(2018\)](#) found social benefits for mentees simply by virtue of the natural bonding experience of the mentor/mentee relationship.

## *Emotional Impact*

The majority of the articles in this review also identified a number of key emotional benefits for students in peer mentoring programs. Mentees reported feeling less anxious, less isolated, and more like they belonged in the campus community ([Beltman, Helker, & Fischer, 2019](#); [Bonin, 2016](#); [Collier, 2017](#); [Cornelius, Wood, & Lai, 2016](#); [Flores & Estudillo, 2018](#); [Graham & McClain, 2019](#); [Peregrina-Kretz et al., 2018](#); [Tout, Pancini, & McCormack, 2014](#); [Yomtov et al., 2017](#)). As [Yomtov et al. \(2017\)](#) wrote in their study, “the mentored students were significantly more likely than nonmentored students to report they had at least one person they could turn to for emotional support” (p. 32). [Zevallos and Washburn \(2014\)](#) reported that “mentors have the potential to reduce the stigma associated with underserved students,” partly through sharing their own experiences with mentees and educating them about educational opportunities on campus (p. 29).

## **Benefits for Peer Mentors**

Benefits for peer mentors fall into three categories. First, some mentors are paid as student workers or as staff ([Beltman, Helker, & Fischer, 2019](#); [Kees et al., 2017](#); [Kring, 2017](#); [Moschetti et al., 2018](#); [Tout, Pancini, & McCormack, 2014](#)). Second, the training and experience mentors receive can translate into a boost in academic performance or a professional advantage when they seek out jobs after graduating ([Abrahamson et al., 2019](#); [Bunting & Williams, 2017](#); [Kiyama & Luca, 2014](#); [Spaulding et al., 2020](#); [Zevallos & Washburn, 2014](#)). Third, there are emotional benefits to mentoring. Peer mentors reported that they felt a strong sense of satisfaction and fulfillment when they were able to help their mentees—although several researchers noticed that peer mentors were frustrated or disappointed when they weren’t able to connect with their mentees or the mentees weren’t fully engaged in the relationship ([Ashman & Colvin, 2011](#); [Beltman, Helker, & Fischer, 2019](#); [Bunting & Williams, 2017](#); [Kiyama & Luca, 2014](#); [Kiyama et al., 2014](#); [Spaulding et al., 2020](#); [Young & Cates, 2005](#)). In addition to these emotional benefits, peer mentors in [Bunting and Williams’ \(2017\)](#) and [Kiyama and Luca’s \(2014\)](#) studies also reported feelings of personal growth as the experience had pushed them out of their comfort zones. [Spaulding et al. \(2020\)](#) reported that the emotional benefits and improvements in transferable skills (i.e. communication and presentation skills, etc.) were more likely to be realized for women who worked as peer mentors.

## **Review of Peer Mentor Programs**

The literature shows a lot of similarities in peer mentoring programs across higher education institutions. As [Flores and Estudillo \(2018\)](#) wrote, “The three most common roles that peer-mentors took on for their mentees were serving as a study buddy, tutor, and academic/accountability coach” (p.14). The differences come in the formality of the peer mentor/mentee relationship, how often students are required to meet, how much and what kind of training the mentors receive, how students are recruited for the two roles, and whether or not peer mentors receive compensation for their work. [Rieske and Benjamin \(2015\)](#) noted that “It may be difficult to standardize the mentor role because different programs have significantly different needs” (p. 74).

Although [Egege and Kutieleh \(2015\)](#) wrote, “There is no model that constitutes best practice” (p. 270), researchers have identified the following best practices:

- Mentoring relationships are more effective if both parties are motivated and engaged ([Cornelius, Wood, & Lai, 2016](#); [Flores & Estudillo, 2018](#); [Haqqee et al., 2020](#); [Plaskett et al., 2018](#)).
- Mentees should be able to choose their peer mentors. A large part of the success in a mentor/mentee relationship depends on how well the parties get along with each other ([Abrahamson et al., 2019](#); [Cornelius, Wood, & Lai, 2016](#); [Egege & Kutieleh, 2015](#); [Flores & Estudillo, 2018](#); [Plaskett et al., 2018](#)).
  - There is evidence that mentor-mentee pairings are more successful if the students are “demographically similar” ([Abrahamson et al., 2019](#)). For example, one landmark study found that women STEM students were more likely to be retained if their mentors were also women STEM students ([Dennehy & Dasgupta, 2017](#)) or if mentors and mentees are of the same race ([Female peer mentors help retain college women in engineering, 2017](#); [Graham & McClain, 2019](#)).
- Mentors will need training in motivation, university services, time management, study skills, communication skills, and leadership—as well as training in what their role as mentor entails ([Abrahamson et al., 2019](#); [Ashman & Colvin, 2011](#); [Bonin, 2016](#); [Moschetti et al., 2018](#); [Beltman, Helker, & Fischer, 2019](#); [Lim et al., 2017](#); [Rieske & Benjamin, 2015](#)).
- Mentors should be allowed the flexibility to add meetings and adjust their goals with their mentees, if needed ([Cornelius, Wood, & Lai, 2016](#); [Haqqee et al., 2020](#)).

USHE Institutions: Peer Mentor Programs			
Institution	Relevant Programs	Where do student / peer mentor interactions take place?	Where is the program located within the institution?
Dixie State University	<ol style="list-style-type: none"> <li><a href="#">Mentoring Matters</a></li> <li><a href="#">Peer Mentor Program</a></li> <li><a href="#">Peer Advisor</a></li> </ol>	<ol style="list-style-type: none"> <li>“Mentoring Matters is a program at Dixie State University matching mentors with students seeking guidance and support with life skills. Mentors are a great resource to help navigate students through their college experience. Areas of focus are time management, effective study skills, organization and much more.” This program is <b>voluntary</b>. Instructors may request a mentor to present a workshop in class.</li> <li>“Coming Soon: We will be partnering with the Student Success Center to provide Peer Coaches who are Safe Zone certified and specialize in coaching members of our LGBTQ+ community. We especially encourage incoming freshmen to take advantage of this program.” This program is <b>voluntary</b>.</li> <li>“Peer advisors are DSU students who excel in their curriculum, are effective communicators, and understand the challenges of beginning college. Peer advisors have the desire and ability to help new students through the transition to DSU and are available to assist students in the Academic Advisement Center. Peer advisors are knowledgeable on the General Education requirements and prerequisite information for certificates and degrees,</li> </ol>	<ol style="list-style-type: none"> <li>Dixie Services</li> <li>DSU LGBTQ+ Resource Center and Student Success Center</li> <li>Academic Advisement Center</li> </ol>

		<p>and can refer you to the proper advisor when you reach your major requirements.” This program is <b>not required</b>.</p>	
<p><b>Salt Lake Community College</b></p>	<ol style="list-style-type: none"> <li>1. <a href="#">SLCC Amigos Mentores</a></li> <li>2. <a href="#">Health Care Career Peer Mentoring Program</a></li> <li>3. <a href="#">VITAL Peer Mentor Program</a></li> <li>4. <a href="#">Bruin Scholars</a></li> <li>5. <a href="#">Honors Mentor Program</a></li> </ol>	<ol style="list-style-type: none"> <li>1. “The SLCC Amigos Mentores - Peer Mentoring Program’s purpose is to assist Hispanic students to reach their academic goals as well as help new students at SLCC with their first steps. We provide students with social and educational support. We believe that the best mentors of students are other students. With this idea students with the most experience serve as a peer mentor for new students. We are a community which provides not only encouragement and support but also where students benefit from sharing information and experience about the different resources SLCC offers. We have regular meetings on subjects of interest to students and we provide workshops, tutoring and referrals.” This program is <b>voluntary</b>.</li> <li>2. “Non-credit course through Canvas, Quarterly, in person group meetings, Chat with mentor(s) through Canvas discussion boards.” This course is <b>not required</b>.</li> <li>3. “The VITAL Peer Mentor Program is in its first 6 months of service. A 1-year Boeing Grant has made it possible to house a fulltime peer mentor at SLCC Veterans Services. This program is a valuable educational platform in providing the means of supporting student development, encourages and shapes individual student</li> </ol>	<ol style="list-style-type: none"> <li>1. Office of Diversity and Multicultural Affairs</li> <li>2. Crossroads Area Health Education Center</li> <li>3. Veterans Services</li> <li>4. Orientation and Student Success</li> <li>5. SLCC Honors Program</li> </ol>

		<p>experience, resulting in academic progress and success.” This program is <b>voluntary for veterans</b>.</p> <p>4. “The Bruin Scholars program is specially designed to support first-generation, undocumented, transitioning-out-of-foster care, nontraditional students, and students who just need help figuring out college, thrive at SLCC. Our staff and peer mentors can help you have a smooth transition to SLCC and can be your support system when things get tough. As a Bruin Scholar you will receive exclusive invitations to program events, registration assistance every semester, access to campus and community resources, and a chance to connect with other SLCC students and potential mentors.” This program is <b>optional</b>, you must apply and be willing to participate in the Summer Bridge to Success program as well as weekly student success groups.</p> <p>5. “All Honors Program students will be assigned a Faculty/Staff and Peer Honors Mentor. Mentors will serve as an additional contact person that students can reach out to for guidance and assistance in navigating higher education. As an Honors Program Mentor, they will share their expertise and offer guidance and support.” This program is <b>required for honors students</b>.</p>	
<p><b>Snow College</b></p>	<p>1. <a href="#">Peer Mentoring Program</a></p>	<p>1. “The Student Success Advisors provide students with information regarding academic planning, institutional and</p>	<p>1. Advisement in Student Success Center</p>



		<p>transfer requirements, assist students in scheduling classes, assist students in planning and implementing immediate and long-range goals, link students with academic help sessions, and work in coordination with faculty to support student success.</p> <p>Advisors are available to meet with students by appointment in-person or ONLINE. Students may call (435) 283-7313 to set up an appointment. Individual in-person interaction is preferred, but advisors will also work with students online or via email.” This program is <b>optional</b>.</p>	
<p><b>Southern Utah University</b></p>	<ol style="list-style-type: none"> <li>1. <a href="#">SUU CAPS Peer Mental Health Support Program</a></li> <li>2. <a href="#">Assistant Coaches for Excellence &amp; Success (ACES)</a></li> <li>3. <a href="#">LEADS</a></li> <li>4. <a href="#">Online Student Outreach</a></li> </ol>	<ol style="list-style-type: none"> <li>1. “Southern Utah University Counseling and Psychological Services (SUU CAPS) Mental Health Support Peers are skill and tool trained Psychology Seniors at Southern Utah University working under the leadership of the clinical staff at SUU CAPS and the mentorship of the SUU Psychology Department. Mental Health Support Peers work alongside students experiencing mental health challenges. Peer Mentors support students through group and individual outreach in order to teach and transfer mental wellness skills in the service of connecting students with clinical supports/therapeutic alliance. SUU CAPS Peer Mental Health Support Workers also refer students to campus and community wellness resources, and lead and deliver outreach education on student mental</li> </ol>	<ol style="list-style-type: none"> <li>1. SUU Health and Wellness Center</li> <li>2. The Nest, SUU's student help center</li> <li>3. Student Involvement and Leadership Office in the Sharwan Smith Student Center</li> <li>4. Student Outreach office</li> </ol>

		<p>wellness. The Mental Health Support Peers work from The SUU Health and Wellness Center and collaborate with interdisciplinary and cross-campus mental wellness, student affairs and academic teams to provide students with wraparound and intersected opportunities for success and belonging at Southern Utah University.” This program is <b>optional</b>.</p> <p>2. “The ACES are here to guide you every step of the way from now until you graduate. The ACES are based out of The Nest, SUU's student help center created to answer any questions you may have, point you in the right direction, give you advice, a place to do homework and relax, and a one-stop-shop for all of your needs.” This program is <b>optional</b>.</p> <p>3. “LEADS are trained to provide students with: Professional and personal development, Individualized mentoring for Involvement Captains, Individualized mentoring for second year students, Leadership trainings and events.” This program is <b>optional</b>.</p> <p>4. “The Student Outreach office is the central hub for all Online students. We are invested in your success and can help you with any questions or concerns you may have about your online journey including: Academic Advising through Student Success Advisors (SSA), Peer mentoring through a designated Peer Success Advisors (PSA).” This program is <b>optional</b>.</p>	
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<b>University of Utah</b>	<ol style="list-style-type: none"> <li>1. <a href="#">LEAP Academic Learning Communities Peer Advisors</a></li> </ol>	<ol style="list-style-type: none"> <li>1. “LEAP Peer Advisors are students who participated in the LEAP experience so successfully as first year student that we hired them to come back as role models, liaisons and helpers. Each LEAP section has a Peer Advisor, and they are in the class every day, along with the students. They can answer students’ questions about class content as well as questions about how to navigate the University.” This is an <b>optional, elective course</b>.</li> </ol>	<ol style="list-style-type: none"> <li>1. Office of Undergraduate Studies</li> </ol>
<b>Utah State University</b>	<ol style="list-style-type: none"> <li>1. <a href="#">Honors Peer Mentors</a></li> <li>2. <a href="#">Science Mentorship Program</a></li> <li>3. <a href="#">Student-Athlete Mentors</a></li> <li>4. <a href="#">VITAL Program</a></li> </ol>	<ol style="list-style-type: none"> <li>1. “Do you have a question about the University Honors Program? Honors students from every college at USU serve on the Honors Student Advisory Board, representing their peers and acting as ambassadors to prospective Honors Aggies. They are eager to hear from you—please feel free to send them a message!” This program is <b>optional</b>.</li> <li>2. “Initiated by the College of Science/USUSA Science Council in Fall 2019, the College of Science Mentorship Program pairs upperclassmen Aggie Scientists with entering freshmen and sophomores to provide mentorship and advice about college study and life. The purpose of the program is to provide newer students with guidance about navigating their programs and university career, and to give volunteer mentors valuable leadership experiences. <b>All College of Science students are welcome to apply as a</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Living and Learning Center</li> <li>2. College of Science/USUSA Science Council</li> <li>3. Student-Athlete Academic Services</li> <li>4. Veterans Resource Office</li> </ol>

		<p><b>mentor or a mentee.”</b></p> <p>3. “A Student-Athlete Mentor (SAM) is a veteran student-athlete who has proved themselves as an exemplary role model. SAMs are selected through an application and interview process. Their primary function as a peer leader is offering experiences, knowledge of resources and leadership to new student-athletes and teammates in the hope that ultimately it will improve their experience and tenure at Utah State.”</p> <p>4. “The Veterans Integrated to Academic Leadership (VITAL) offers consultation on Veteran-specific needs and is dedicated to assisting student veterans in overcoming challenges in academic settings. VITAL peers offer general support and guidance as student veterans transition into civilian and academic life to support academic and personal success. Even if a veteran feels fit, deployment and military careers can take a toll. VITAL peers serve as a link between the University, the VA and other systems so that student veterans can focus on their educational and career pursuits.”</p>	
<p><b>Utah Valley University</b></p>	<p>1. <a href="#">UVU Mentors</a></p>	<p>1. “The UVU Mentors are a group of students dedicated to helping their peers by passing on what they have learned while attending UVU. They dedicate 150 hours of service each semester to making UVU a friendlier, more helpful, and student centered university. They work with students individually and in the classroom. Their motto is: “Students Helping Students”.”</p>	<p>1. Student Leadership and Success Studies Academic Department</p>

<p><b>Weber State University</b></p>	<ol style="list-style-type: none"> <li>1. <a href="#">Peer Mentor Program</a></li> <li>2. <a href="#">Peer Mentors at Nontraditional Student Center</a></li> <li>3. <a href="#">CATT Peer Mentoring</a></li> </ol>	<ol style="list-style-type: none"> <li>1. “Through one-on-one and small group mentoring, participants will learn about important topics like campus resources, goal setting, time management, talking to faculty, and their own personal, academic, leadership and identity development...Peer Mentors facilitate one on one and small group reflection and activities.”</li> <li>2. “Peer Mentors with the Nontraditional Student Center will help with the areas below:                  Developing the tools and skills necessary to overcome any barriers you are facing as you make your transition from new student to college graduate.                  Financial Aid (FAFSA) and Scholarship Applications -- ‘How do I find funding to pay for college?’                  Academic Success (study, time management and test taking skills) -- ‘I feel overwhelmed; There just isn’t enough time to do all of this homework...’                  Getting involved at WSU (activities, events and student clubs) -- ‘How can I get the most out of time attending WSU?’                  One-on-one sessions through drop-in visits during office hours, or scheduled appointments at both campuses.”</li> <li>3. “Our mission is to identify motivated college-bound students and pair them with a peer guide to increase their success throughout the transition process. Students with disabilities struggle accessing the necessary accommodations to ensure success throughout their college</li> </ol>	<ol style="list-style-type: none"> <li>1. Student Services</li> <li>2. Nontraditional Student Center</li> <li>3. Disability Services</li> </ol>
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		experience. Peer guides positively influence the success of students with disabilities in college. As a volunteer organization facilitated by students with disabilities, transitioning students will become peer guides for future participants.”	
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<b>Comparable Institutions: Peer Mentor Programs</b>			
<b>Institution</b>	<b>Relevant Programs</b>	<b>Where do student / peer mentor interactions take place?</b>	<b>Where is the program located within the institution?</b>
<b>Arkansas Tech University</b>	1. <a href="#">Mentoring</a>	1. “Mentoring at its heart is a relationship that provides support, guidance, and understanding of students, their successes, and their challenges. We are here to assist you in finding your solid ground at ATU-Ozark. At ATU-Ozark, some students are required to participate in mentorship while other students might be excited to get connected with a mentor. If you are interested in a mentor let us know!”	1. Student Success Center
<b>Bellevue College</b>	1. <a href="#">Neurodiversity Navigators</a> 2. <a href="#">MCS Connects Mentoring Program</a>	1. “Our peer mentors (Navigation Assistants) usually come from nearby Universities and are typically planning to enter fields where they will work with neurodiverse people. They are usually Juniors or Seniors, and are often co-enrolled in an Internship as part of their work with us, either through their Institution or through ours.” “Students also meet with a trained peer mentor, called a Navigation Assistant, regularly for access support – to ensure that the student can access their class materials and campus resources, and communicate with instructors. The Navigation Assistants aren’t tutors, and they don’t do the work for the student, instead, they support the student in accessing resources, and discovering ways to do the work and communication for themselves, using	1. Disability Resource Center 2. Multicultural Services

		<p>strength-based growth models. While they also support students in accessing clubs and other social opportunities, they do not attend social functions with students, nor do they act as social role models.”</p> <p>“The Neurodiversity Navigators Program currently serves Bellevue College students who identify as autistic or neurodivergent. Students must self-identify as autistic or neurodivergent, must wish to be part of the program, and must agree to participate in all program components listed above and discuss any participation concerns with program leads.”</p> <p>2. “MCS Connects Mentoring Program fosters professional and supportive mentoring relationships between incoming students and peer, staff, faculty mentors for a period of one year. Mentors will guide new students to work through academic and personal goals as they make their transition to BC.”</p>	
<p><b>CUNY College of Staten Island</b></p>	<p>1. <a href="#">New Student Mentoring Program</a></p>	<p>1. “The New Student Mentoring Program is a peer-mentoring program that offers assistance and information for students year-round, especially those in their first year...The New Student Mentors create CLUE workshops throughout the year on various topics to help students transition to college, as well as, connect with continuing students as they progress through their college experience.</p> <p>If you’re a currently enrolled student at CSI and would like to be mentored by a</p>	<p>1. Transitional Services</p>



		<p>peer mentor, students are encouraged to take part in the New Student Mentoring Program. This is a free service available to all students who are looking for peer-support to help guide them through the college experience. Students work with their New Student Mentors to help locate campus resources, understand college policies and regulations, guide them to the path for registration for the upcoming semester, where to go to get involved, understanding academic grades, CLUE matters, and much more. The New Student Mentors can also work with students to keep them on track during the semester to ensure a successful semester as the college. Don't have time in your schedule to meet with a New Student Mentor? Peer-mentoring can be provided in many forms including: scheduled in-office appointments, scheduled phone appointments, email appointments, drop-in, and much more.”</p>	
<p><b>Palm Beach State College</b></p>	<p>Palm Beach State College does not appear to have any mentoring program in place, based on searching their website.</p>		
<p><b>South Texas College</b></p>	<p>South Texas College does not appear to have any mentoring program in place, based on searching their website.</p>		

<b>St. Petersburg College</b>	St. Petersburg College does not appear to have any mentoring program in place, based on searching their website.		
<b>University of Alaska Anchorage</b>	1. <a href="#">Seawolf Mentor</a>	1. “UAA has partnered with the Mentor Collective to launch Seawolf Mentor. The program enhances the student experience by linking them one-on-one with a peer mentor. Students are paired with someone who has walked in their shoes and is invested in their success — a person ready to listen, inspire, help navigate challenges and recognize opportunities. Students will learn what to expect in school, how to approach challenges, gain career advice and valuable insights, while mentors will build their networks and develop skills to become better professionals and leaders. Students will be matched with a peer mentor based on common interests, background, academics and professional aspirations. To get started, students and mentors register and complete an online survey to assess personality and experience.”	1. Office of Academic Affairs
<b>Western Kentucky University</b>	1. <a href="#">The Mahurin Honors College's Peer Mentors</a> 2. <a href="#">Peer Mentors</a>	1. “Peer mentors promote scholar success by supporting MHC advising initiatives through one-on-one peer advising, pop-up advising hours, classroom presentations, small group sessions, and direct communication with MHC scholars.	1. The Mahurin Honors College 2. American Sign Language Studies program

		<p>Applicants can expect to dedicate 5 to 10 hours per week to the organization, including office hours in the MHC suite and/or online. Professional development includes a one-credit-hour seminar in Fall 2021 on Tuesdays from 4:00 to 4:55, and monthly meetings in subsequent semesters. Members must comply with WKU's Code of Student Conduct.”</p> <p>2. “We are the people you see in class, but you might not necessarily know who we are or why we are in there. We are not classmates or instructors, but we are your peer mentors -- and we are here to help! Our roles are quite diverse, ranging from being a prop in class for the instructor, to scheduling review sessions for tests. We are here for your benefit and want you to feel comfortable coming to us for advice or help. Most of us have been where you are at some point in our signing careers and want to share with you our passion for ASL.”</p>	
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## Annotated Bibliography

### Keywords Used for Searching Literature

- (“peer mentors” OR “peer advisors”) AND (university OR college OR “higher education”)
- (“peer mentors” OR “peer advisors”) AND “student success”
- (“peer mentors” OR “peer advisors”) AND engagement
- (“peer mentors” OR “peer advisors”) AND (university or college or "higher education") AND (emotion\* or social or connect\*)

### Impact on Mentees: Peer-Reviewed Journal Articles

<p><b>Citation</b> Ashman, M., &amp; Colvin, J. (2011). Peer mentoring roles. <i>NADE Digest</i>, 5(2), 45–53.</p> <p><b>Abstract</b> Because students starting college are not always prepared to succeed, colleges and universities frequently offer courses designed to help students who need remediation in mathematics, reading, and writing. At Utah Valley University (UVU), peer mentors are integrated into the University Student Success course to help first-year students learn the skills needed to be successful in college. This research suggests that the more peer mentors, students, and instructors each understand the peer mentor's role, the more successful the peer mentoring relationship with students will be.</p>	<p><b>Conclusions</b> “In order to provide increased understanding of mentors and how they and others see their role as well as extend Colvin’s study of peer tutors, research was conducted to examine peer mentors, their interactions with students and instructors, and their understanding of their role in and out of the classroom. For purposes of this study, a peer mentor is defined as ‘a student who has learned from experience or has developed skills to successfully guide other students through college’ (Sanft, Jensen, and Mc Murray, 2008, p.5). It should also be noted that UVU mentors typically help students with not just academic but also social competencies.” (p. 46)</p> <p>“Data collection started in late Spring 2008 and continued through Spring 2009 utilizing observations and interviews.” (p. 46)</p> <p>“As faculty researchers, we engaged in participant observation throughout the entire study and collected extensive field notes. Observations were collected at UVU mentor activities, weekly classes and meetings, and other interactions in both formal and informal settings.” (p. 46)</p> <p>“The researchers interviewed 12 UVU mentors that had been part of the program for one year or longer, eight newly selected UVU mentors, 10 instructors of the University Student Success course to which the UVU mentors were assigned, and 10 students who attended the University Student Success course with a UVU mentor in their class...Student researchers conducted ten of the interviews. These student researchers first observed how professional staff conducted interviews, practiced with each other using the structured question list, and when they could demonstrate inter-coder consistency,</p>
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**Article Link**

<https://eric.ed.gov/?id=EJ1097559>

conducted their own interviews. All interviewers used structured questions with unstructured followup questions. All of the interviews were transcribed and measures were taken to verify accuracy.” (p. 47)

“There were a total of 96 comments from students, mentors, and instructors about roles and their implications for mentors. In the process of sorting and labeling the roles, researchers found that roles could be grouped into the same categories identified by Sanft, Jensen, and McMurray in their work on peer mentoring. These five roles are Connecting Link, Peer Leader, Learning Coach, Student Advocate, and Trusted Friend. Because we wanted to know if there is a common understanding of each of these five roles amongst students, mentors, and instructors, the 96 comments were analyzed together. Individual comments are listed by student, mentor or instructor.” (p. 49)

**“Roles**

*Connecting Link.* Nineteen of the 96 comments on the role of the mentor related to the role of Connecting Link. The majority of the comments focused on the mentor helping the students feel comfortable on campus and knowing the resources on campus. Almost half of the 19 comments referred to the mentor knowing resources on campus. ‘A mentor is someone who knows the campus very well (Student #36 Interview).’ Peer mentors know ‘little details about the school, about things [students] would never know about (Student #42 Interview).’

*Peer Leader.* Ten of the 96 comments directly referred to peer mentors as a Peer Leader. ‘They’re not just leaders to the student [in their class], they’re leaders to all students...and they’re an example to all students not just the ones they mentor [in their class] (Student #40 Interview).’ Peer mentors are not just being viewed by the students in their classrooms as leaders but by the institution at large, ‘[the mentors] are a huge part of leadership [on campus], that’s kind of how they support the university (Student #33 Interview).’” (p. 49)

*Learning Coach.* The role of Learning Coach received the most comments of 29 out of 96. There were 13 references within the 29 comments that referred to peer mentors in the role of | learning coach that helped students want to persist through graduation. Mentors ‘increase the success rate and lower the dropout rate (Student #32 Interview),’ they are ‘students who are helping another student succeed in school (Returning Mentor #30 Interview),’ and are ‘kind of like a team working alongside [students] helping them to pursue an education (Student # 40 Interview).’” (pp. 49-50)

*Student Advocate.* The role of Student Advocate was the second highest in comments with 24 out of 96. Twelve of the 24 comments relate to the peer mentor being a helper, mostly in helping to mediate

the relationship between the student and the instructor. UVU mentors help the students during their first year experience to ‘assist [the students] in figuring things out (Student #40 Interview),’ in being ‘a personal helper...with what’s going on (Student #42 Interview).’ Other comments (4 of 12) address the issue that students might need ‘help to have confidence to approach their instructors (Instructor #24 Interview),’ ‘[but] they can turn to the peer (Student #37 Interview).’ Instructors said, ‘By listen[ing] to [the mentor] we can see how the students perceive things (Instructor #24 Interview).’ *Trusted Friend*. Ten of 96 comments referred to a peer mentor being a Trusted Friend. Many of the interviewees responded that the main difference between a peer tutor and peer mentor was that a peer tutor mainly ‘just helps [the students] in class (Student #33 Interview),’ and that the relationship with a peer mentor ‘is to be a friend for [the students] (Student #35 Interview).’ A peer mentor is ‘someone who is a friend...trustworthy, [and] there for the students...to spend time with [them] on campus, there if they have questions (Returning Mentor #22 Interview).’” (p. 50)

#### “Benefits

*Mentors*. When mentors were asked, ‘What benefit do you see for being a mentor?’ three themes emerged: being able to support students, reapplying concepts in their own lives, and developing connections amongst themselves. Thirty-nine out of 77 comments about the benefits of being peer mentors focused on being able to support, help out, or uplift the students with whom they worked. Mentors said such things as, ‘[Mentoring] is just a great service opportunity to help others...I like seeing that ‘aha’ moment... (Returning Mentor #9 Interview).’ Mentors also liked being able to help others be successful in their class(es). Mentors also indicated another benefit (22 out of 77 comments), that of being more involved with other peer mentors, developing friendships, and learning how to interact with others. Comments included such things as, ‘You make more friends and it’s able to help you be more social if you’re shy (Student #35 Interview),’ and ‘I think that it’s such a good support system. You have the other mentors as a support system, and you are continually growing and learning (Returning Mentor #2 Interview).’ Finally, mentors also felt, as Goodlad (1998) suggested, that mentoring allowed them to reapply concepts into their own lives and helped them become even better students themselves (16 out of 77 comments). ‘There are principles that are taught in the class and by me mentoring, I am able to continually be refreshed on all those items...that I’ve learned that I may not be doing that I need to reapply (Returning Mentor #1 Interview).’ Interestingly, even though UVU peer mentors each receive a full tuition scholarship for mentoring for two semesters, only 3 of the 77 responses mentioned this as being a benefit.” (p. 51)

“Not all experiences related to peer mentoring are positive, however. Instructors, peer mentors, and students all saw some risk or challenge in maintaining a peer-mentor relationship.

	<p><i>Mentors.</i> Comments about risks or challenges for mentors focused on their personal lives, interactions with students, and interactions with the instructors. Thirty-eight of the 70 comments on the risks and challenges for mentors were issues of balancing both the   specific requirements and personal desire to do well as mentors with time and other commitments. One mentor commented, ‘I think [it is a challenge] just maintaining balance in your own personal life and being able to draw the line between helping other people and taking on their other problems and issues...(Returning Mentor #34 Interview).’” (pp. 51-52)</p> <p>“Others saw risks and challenges in interacting with students (28 out of 70). Comments centered on students either being too dependent on the mentor or, conversely, not accepting the mentors. Students who were dependent were seen as needing the mentor too much. ‘There is a huge risk of depending on that person too much, using them as a crutch...(Returning Mentor #11 Interview).’ Students who did not accept mentors created challenges for the mentors who were supposed to be helping and working with them. Some students feel like ‘they don’t really need [help] or they’re going to avoid you and don’t really want your help...(Returning Mentor #2 Interview).’ Some light can be shed on risks and challenges for mentors by comparing the amount of time mentors participated in the program. Those who were first- and second-year mentors saw the students as being too dependent as the major risk. By the third year, mentors focused mainly on time management as the major risk.” (p. 52)</p> <p>“Just as Colvin found in her study with tutors, it is apparent that stakeholders in the UVU Mentor Program have different definitions and expectations of the peer mentoring role. UVU faculty concluded from this finding that students must be informed of the five roles for peer mentors that emerged from the study, that all of these roles are important, and mentors will likely play each of these roles over time with their mentees. In addition, UVU faculty have concluded that the peer mentor and instructor must receive training together to increase understanding of roles, increase the benefits of mentoring, and lessen the risks that are evident in not knowing what to expect or how to work together. It cannot be assumed that peer mentors and faculty have a common understanding of their roles; training and role clarification can alleviate confusion.” (p. 52)</p> <p>“Mentors must also understand that the role of trusted friend must be established early on or the other roles are not likely to emerge. The goal is that as all stakeholders understand the role of a peer mentor, the UVU mentors will be able to better serve the students on UVU’s campus and help increase retention and learning rates.” (p. 53)</p>
<p><b>Citation</b></p>	<p><b>Conclusions</b></p>

Beltman, S., Helker, K. & Fischer, S. (2019). 'I really enjoy it': Emotional engagement of university peer mentors. *International Journal of Emotional Education*, 11(2), 50–70.

### Abstract

Peer mentoring programs are commonly used to facilitate the transition of new students into higher education settings. Peer mentors' experiences and emotions during mentoring are important but under-researched. We report exploratory work to address this gap in a two-phase study using a grounded theory approach. In Phase 1 mentors in an Australian university responded to online (n=35) or face-to-face (n=10) questions about their emotions during a peer mentor program. Emotions were found to be primarily positive, mentors varied in the extent to which they express emotions, and emotions relating to different time points were evident. In Phase 2, we examined temporal dimensions of emotions in more depth with peer mentors in a German university and added anticipated future emotions to existing categories. Connections between mentors' emotions and their own early experiences at university were explored, with another category of recalled prior emotions being added. Our findings are consistent with previous research regarding the positive and negative emotional aspects of being a

“There are limitations in research on mentoring programs (Gershenfeld, 2014). For example, while mentoring is reciprocal (Heirdsfield, Walker, Walsh, & Wilss, 2008), research related to peer mentors has been less prevalent (Elliott et al., 2011). This paper addresses this gap by presenting research on the emotions of peer mentors in first year university programs.” (p. 51)

“In Phase 1, we explored university peer mentor emotions during a peer mentoring program. This timing should enable peer mentors to share emotions they were currently experiencing and report on their expectations for the rest of the semester, hopefully tapping into current and prospective emotions, rather than recalled, retrospective emotions as examined in previous studies (Beltman & Schaeben, 2012).” (p. 52)

“In a large Australian university every new student (freshman) is offered a peer mentor who has successfully completed at least one year in the same course. New students could decide not to participate in the program and withdraw at any point. Peer mentors need to apply and participate in a centrally-organised one-day training. Mentors meet with their group of 10-15 mentees and help them in organisational, social, and orientation matters, such as showing them around campus. Peer mentors are expected to have contact with their mentees at least weekly by email plus ideally face-to-face, with individuals or groups, throughout the semester. Mentors receive recognition for their participation through their academic transcript and an honorarium payment.” (p. 54)

“Phase 1 participants were recruited during the pre-semester training. From the 87 interested mentors, 10 (female: n=9, male: n=1) were randomly chosen to participate in the face-to-face interviews and were 18-34 years old ( $\bar{x}$ = 25.2 years). The remaining volunteers were invited to submit online responses to the same interview questions, and 35 participants completed these (female: n=27, male: n=8). Online participants were 18-51 years old ( $\bar{x}$ = 23.7 years). Surveys and interviews were completed in the first four weeks of semester to provide an insight into mentors' emotions at the beginning of the program.” (p. 54)

“In the online surveys, 240 emotions were recorded and coded as positive or negative. The majority of reported emotions (89%) were positive and included feelings of personal fulfilment, general positive feelings, enjoyment and a feeling of being rewarded (see Table I). The 26 emotions coded as negative were spread across 13 participants and related mainly to feelings of personal failure due to a lack of response from mentees. Overall, mentoring was a mostly positive experience with mentors intending to become a mentor again. Sixteen examples of positive prospective emotions were also identified in



peer mentor and further contribute to the understanding of the complexity of emotions in mentoring, specifically peer mentoring in higher education settings.

### Limitations

“In the reported research, interviews and on-line questions relied on self-reports of a relatively small sample of peer mentors. As indicated by Saldaña (2009), participants may experience difficulties in labelling and expressing their emotions. Interview participants could have felt restricted in their responses as they were asked to reveal their feelings. Participants may have concealed or euphemised certain emotions.” (p. 63)

### Article Link

<https://files.eric.ed.gov/fulltext/EJ1236232.pdf>

the online data – there were no negative examples. Participants were looking forward to continuing as a mentor, and feeling happy and excited about the prospect of the rest of the program.” (p. 55)

“The ten peer mentors were positive with all wanting to become a mentor again and all seeing relevance to their future career. Thematic analysis revealed two major themes. The first theme indicated that individual mentors reflected different degrees of emotional involvement. The second emerging theme was that the emotions expressed covered across multiple time periods, and were not limited to the period of mentoring. These time points could be represented as temporal dimensions of emotions. Each of these themes will be presented.

*Theme 1: Differing emotional involvement.* Although interviewees consistently regarded the peer mentoring experience as positive, the degree of emotional engagement differed between individuals.” (p. 55)

*Theme 2: Temporal dimensions of emotions.* A second emerging theme was that the emotions expressed related to five time points, not only in the present, but also in the past and the future. In addition to the expected current emotions about current events, and prospective emotions (current emotions about the future), retrospective emotions (current emotions about the past) were also expressed. Interviews enabled a more fine-grained categorisation of the category of current emotions and development of two new categories that we named recalled prior emotions and anticipated future emotions.” (p. 57)

“...Recalled prior emotions are emotions about past events that are no longer currently experienced. For example, mentors recalled how they felt when they began as a new student at the university. Current emotions about the past are retrospective emotions (Pekrun et al., 2002) that are being felt in the present but refer to events in the past. Current emotions about the present are emotions relating to events happening in the present. Prospective emotions (Pekrun et al., 2002) are current emotions about the future, and refer to an emotion being experienced in the present but about an event that has not yet occurred. Finally, anticipated future emotions are emotions that an individual expects to feel in the future but, unlike prospective emotions, is not currently feeling. For example, a mentor could say he or she is likely to feel a sense of satisfaction when the mentoring experience is completed, even if they do not currently feel satisfied.” (pp. 57-58)

“In Phase 2, building on Phase 1, we explicitly examined emotions over multiple time points. We aimed to explore which emotions peer mentors in a first year university peer mentoring program experienced at the beginning (Time 1) and end (Time 2) of the mentoring period. Recollections of

mentors' own past as beginning students and their expectations for their mentoring and mentees were included." (p. 58)

"With similar aims to the Phase 1 Australian university, a peer-mentoring program was introduced in 2014 at a German technical university. This program was only for 300 new students entering teacher education and was developed by teacher education staff familiar with the Phase 1 program. Students are allocated to the most suitable peer mentors based on their specific subject of study. During the semester, mentors must participate in weekly meetings with the central organisers and are expected to have contact with their | mentees via email or face-to-face. Peer mentors can organise meetings independently with their mentees, but regular workshops on specific relevant themes (e.g., exam preparation) are offered at set points during semester. Peer mentors are paid as student assistants with a small contract to cover expenses. Despite all mentees being allocated to a specific mentor at the beginning of the semester, mentoring is a noncompulsory offering to students to facilitate the transition to university." (pp. 58-59)

"We interviewed ten peer mentors (female: n=7, male: n=3) aged 21-25 years old ( $\bar{x}$ = 22.3 years) at Time 1 (T1) at the very beginning of the semester around the time of first meeting their mentees (T1), and again at Time 2 (T2) at the end of the semester. Participants had experienced mentoring themselves as beginning students only in their first week of university." (p. 59)

*"Time 1.* In the first interview, mentors reflected on their own emotions when they began university (recalled prior emotions). Mentors recalled their own start of university as 'overwhelming' (#1, #3, #7, #8), 'awful' (#5), and 'like you'll never make it' (#5), because of the new environment and information overload. Only one person stated that her own first semester had been positive - saying: 'I was happy' (#6). She and other interviewees mentioned their own mentors who for some provided a negative experience, for example, 'One of my mentors left the impression that he is not enjoying this [his studies] very much. That was demotivating' (#4). Others had recalled emotions of how mentors contributed to their first semester that were positive, stating for example: 'I did not feel left alone' (#7). Looking back on their own experiences as first-year students, all mentors however expressed positive current emotions about the past: 'I am proud to have made it.' (#4).

These recalled prior emotions and current emotions about the past (retrospective) played a role in the students deciding to become mentors. In the interviews, most mentors related their own, both positive and negative, experiences as first year students to their reasons for being a mentor today: 'These were quite good mentors and that is why I decided to become a mentor myself.' (#2); or 'My mentors were not good. That is why I thought I'd rather do it myself, than the new students get someone like this

and start to panic' (#9). Mentors' current emotions about the present were varied and represented the majority of emotions at T1. Some mentors expressed enjoyment regarding the program with comments such as: 'I am passionate about it. Yes, this is in fact an ideal job for me' (#10); and 'I feel good doing it (...) and it is fun' (#5). On the other hand, mentors found the fact that only a few first-year students responded to be frustrating (e.g., 'It is a bit frustrating for me but I think for the others as well. I feel sorry for all of us' (#8)). In coping with these negative current emotions, most mentors were able to create balance between regretting the low response rate, but enjoying the feedback they received: 'You sometimes feel unnecessary somehow. But for the twelve people who respond...I enjoy that' (#6)." (p. 60)

"When thinking about their future as a mentor for the rest of semester (current emotions about the future - prospective), most peer mentors expressed the prospective emotion of hope that more students would participate in the program and find it useful: 'My aim is that those, who participated, say that it was useful' (#7). An example of an anticipated future emotion was one student's hope that things would change and she would then feel satisfied: 'I hope they use the project more, come back to it and at the end of the semester say 'Wow, thanks for being there, you helped a lot.' Then I would also be satisfied' (#6). Another mentor also anticipated a possible future negative emotion saying: 'I would find it a shame if at the end of the semester I felt like I have been talking to myself ...' (#1)." (p. 61)

*Time 2.* In the second interview mentors reflected on their emotions during the semester (recalled prior emotions). Most commented on how much they had enjoyed interacting with the mentees, saying for example: 'I enjoyed the work with the first-years' (#3), and 'It was fun helping people' (#5). They also recalled frustration over the low response rate: 'It was a bit unsatisfactory...I thought we would have more people coming' (#1). Some mentors got more responses over the time than others: 'It was a bit bad to see that it went better for the others – that made me feel a bit jealous' (#8). Looking back at their experiences over the past semester (current emotion about the past - retrospective), mentors described the same emotions of being disappointed by the minimal feedback: 'I often ask myself what's the reason – I tend to take things personally and for a while I was asking myself whether it's to do with me that they do not want to meet up.' (#5).

At T2 most mentors were feeling positive (current emotions about the present). The interconnection between the different time phases was evident as past and present emotions merged: 'I feel good, really good to be honest. The last semester was really good fun for me' (#8). Regarding the things that did not go well, mentors expressed different emotions that were not necessarily negative: 'I find it funny. I don't find it bad if something's chaotic' (#2). Those who had already decided to mentor again in the coming semester expressed positive emotions about this (current emotions about the future),

saying for example: ‘I am glad to be able to continue but I hope it will be better than last semester. That is important to me’ (#5). One mentor said he would not be mentoring again and although his actual emotion was not expressed there was an unspoken element of frustration and feeling of wasting time: ‘...I won’t be mentoring next semester because there will be only a few new students and I don’t want to sit around in meetings’ (#4).” (p. 61)

“*Comparing Time 1 and 2 results.* Mentors experienced more positive than negative emotions at T2, while emotions at T1 were more balanced. Mentors in both interviews talked about having become used to low response rates from mentees. All participants found the poor response frustrating and disappointing, but understood that the program has to grow and become more popular with students. Peer mentors also stated that their experience had been a learning process: ‘I grew with it during the semester. At the beginning it was | disappointing, because I am somebody, if I offer help, I am happy if it is taken...I got an email last week...they know I am there and I liked this, although I had not heard from them during the semester’ (#1). Interviews at T2 showed further links between the different time points. For example, two mentors commented on their own start of university when talking about their current emotions: ‘Well, I find it great. If I had been in their position, I would have been over the moon. I find the program just great’ (#3). The positive emotions also motivated mentors to continue: ‘The feedback that came makes me want to go on’ (#6).” (pp. 61-62)

“Overall, our findings were consistent with literature that indicates the variety of positive emotions experienced by mentors (e.g., Beltman & Schaeben, 2012). Mentors enjoyed interacting with their mentees and sharing their expertise (Heirdsfield et al., 2008), and found ‘pleasure in their relationships’ with their mentees (Bullough & Draper, 2004, p. 284).” (p. 62)

“Findings were also consistent with research about negative emotions. Terrion and Phillion (2008) said that mentors’ negative emotions, such as disappointment and frustration occur, for example, when they had not met agreed upon goals. Mentee success or failure can be taken personally and mentors reported that poor mentee response evoked feelings of frustration and feelings that they had not fulfilled their role (Bullough & Draper, 2004). Despite similar negative emotions, most of the mentors in the current studies said they would be a mentor again. When ongoing support and training for mentors are available, the outcomes are more beneficial (Martin & Sifers, 2012). Training needs to ensure that mentors have realistic expectations for, and know the boundaries of, their role, and that mentors know how to access support. It seems likely that the | positive emotions experienced by mentors in the current programs were linked to the programs’ initial training and ongoing support.” (pp. 62-63)

	<p>“...The interviews showed that recalled prior emotions played a crucial part in the peer mentors’ motivation for, and expectations about, the role. Previous work points to the importance of expectations in mentoring (e.g., Collings et al., 2016) and pre-mentoring experiences play a part. Anticipated future emotions were also related to beliefs about future experiences and a desire to be a mentor again. These additional concepts align with the reciprocal connections between emotions and their antecedents and outcomes (Pekrun et al., 2011). These insights are potentially useful for program managers in understanding initial and repeat mentor motivations and the value of recruiting mentors returning for the experience.” (p. 63)</p> <p>“The findings of this exploratory research are consistent with recent research that mentoring is beneficial for mentors, with their experience being a positive emotional one. The findings highlight the role of program developers in providing specific training and support to prepare intrinsically motivated mentors for the potential factors associated with negative emotions. The findings also point to the complexity and reciprocity of emotions over a range of time points.” (p. 64)</p>
<p><b>Citation</b> Bonin, E. (2016). Effect of peer mentors on academic performance. <i>Perspectives in Peer Programs</i>, 27(1), 1-8.</p> <p><b>Abstract</b> Undergraduate peer mentoring programs strive to retain students who solve their own problems, develop options, unravel obstacles, and establish a process of figuring out solutions. A crucial component of obtaining that goal is to effectively train peer mentors to serve as advocates to freshman undergraduate students. Terrion and Phillion (2008) note "that mentor training is indispensable in providing tools and techniques that mentor will use in their mentoring function [including] an ongoing and formal training</p>	<p><b>Conclusions</b> “The purpose of this literature review is to examine the effectiveness of peer mentoring programs on the academic performance of undergraduate students. The lack of documentation and inconsistent methodological practices combined with the varied definitions for peer mentoring programs makes it difficult to quantify the influence that peer mentoring has on retaining undergraduate students.” (p. 2)</p> <p>“The literature review process consisted of a structured search of online academic databases, combined with specific inclusion and exclusion criteria. First, the following search criteria included five keyword search terms: peer mentor*, college student, GPA, tutor*, grade. The time period of the studies ranged from 2001-2012 and the Boolean term ‘and’ was used for each combination of keyword search terms. These five search terms were chosen because they focused on the three critical components of this literature review: peer mentors, college students, and grades. The data found in Descriptive Characteristics of Selected Studies (see Table 1) was recorded on individual coversheets for each article. This data was used to determine themes, trends, findings, limitations, and ideas for future research. Each article was listed with its title, author, and copyright date in an Excel spreadsheet. Intercoder reliability was conducted by a doctoral student utilizing a random sampling approach in the keyword database searches. No missing data was identified.” (p. 2)</p>

program which emphasized an experiential and self-reflexive approach." Undergraduates benefit from the experience and skills of peer mentors who are able to create a safe environment for freshmen to share their questions and concerns. Relationship building includes being present for the other, a behavior at the heart of peer mentoring programs. Teaching peer mentors to listen with empathy is an important component in the relationship building process. In addition, peer mentors trained in conflict resolution, giving and receiving feedback, and team building will be better prepared to assist undergraduates to navigate the transition into college life. A future study may include research on leadership training with an emphasis on service and its effect on peer mentoring programs.

**Article Link**

[https://www2.rivier.edu/journal/ROAJ-Fall-2013/J821-Bonin\\_DCLL.pdf](https://www2.rivier.edu/journal/ROAJ-Fall-2013/J821-Bonin_DCLL.pdf)

"The largest amount of data published pertaining to the search criteria in this literature review (N=15, 35%) occurred during 2006-2008. The most recent data published from 2010-2012 comprised the second largest amount of data (N=12, 29%). The results in 2004-2006 (N=7, 18%), 2008-2010 (N=5, 12%), and 2002-2004 (N=3, 6%) contained the remaining data. There were two types of locations for the colleges listed in this study. In the United States 53% (N=22) of the colleges were located in urban areas. There were no rural or suburban colleges included. The international schools contained the remaining 47% (N=20) of the colleges.

The studies contained in this literature review were predominantly conducted in one of two divisions within the universities and colleges (see Table 1). Academic administration conducted 76% (N=32) of the studies and Student Life conducted 12% (N=5) of the studies. The other 12% (N=5) of the studies were held in various individual divisions. Two types of methodology comprised 76% (N=32) of this literature review. The qualitative studies 59% (N=25) were used more extensively than the quantitative studies 18% (N=8). The remaining studies were divided among correlational and mixed designs. The type of data from the qualitative studies were collected through field notes 10% (N=4), surveys only 30% (N= 12), interviews and surveys 50% (N=21), and interviews only 10% (N=4). The results of the qualitative studies indicate that students benefit from the relationships that evolve from a peer mentor relationship. There was no clear correlation between a peer mentor's role with a student and the student's academic performance. These results remained static across the college locations. The overall positive results of this body of research showed that peer mentors developed the undergraduate students' interactions with students in their age group. Students reported in their interviews, surveys, and journal entries improved self-confidence and self-esteem (Whitney, Hendricker, & Offutt, 2011; SmithJentsch, Scielzo, Yarbrough, & Rosopa, 2008)." (p. 5)

"Although the included qualitative studies examine the positive effects of both the social and academic influences of peer mentors, there remains a need for definitive, quantitative data to isolate key behaviors and factors of peer mentors that elicit the most academic success. The peer mentors' effect on the academic performance of undergraduate students remains statistically unclear. Qualitative research shows that the psychosocial component of the peer mentor's role helps new students confidently adjust to a college or university environment and subsequently reduces students' tendency to transfer or dropout of school (Hall & Jaugietis, 2010). In Hall and Jaugietis (2010) study, an academically struggling undergraduate freshman states, "I think signing up for a peer mentor program is the best decision I have ever made." At other universities, undergraduate students maintain considerably higher grades when they participate in peer mentoring programs that emphasize on-campus student engagement (SmithJentsch, Scielzo, Yarbrough, & Rosopa, 2008). However, these

results require more research to discern what influences freshmen student's participation (Rodger & Tremblay, 2003)." (p. 5)

"The majority of quality data identified by this literature review focused on the psychosocial aspect of the peer mentors' roles and responsibilities. Peer mentoring in undergraduate colleges is a relationship in which two students of similar age and/or experience meet either formally or informally (Terrion and Leonard, 2007). Due to their closeness in age and college-life experiences, peer mentors relate to the interpersonal challenges and feelings of college students more successfully than a college's faculty and/or staff members (Jacobi, 1991). Peer mentors identify impending obstacles to student success and propose potential alternatives (Harmon, 2006)." (p. 5)

"Peer mentors who seek to assist students' socialization and improve their learning experience provide emotional and moral support (McLean, 2004). The peer mentoring attitude is developed utilizing various techniques including impartiality, accountability, and understanding. Successful peer mentors are consistent in exhibiting these attributes with their undergraduate mentees. Peer mentors who develop a sense of connection with their mentees ease their tensions in regards to socialization which helps their peers adapt to their new environment (LeCornu, 2005; Young & Cates, 2005). Academic peer mentoring programs connected to undergraduate student success include a higher level of socialization as an aspect of the mentee's satisfaction with the college (Smith-Jentsch, Scielzo, Yarbrough, & Rosopa, 2008)." (p. 6)

"The research that discusses the academic effect of a peer mentor focuses on the mentors' role in the classroom and online. Colleges who include academic support in the role of the peer mentors note 'the goal of mentoring related to helping students explore ways to solve their own problems, develop options, unravel obstacles, and lead them through the process of figuring our solutions' (Rubin, 2009; Hall & Jaugietis, 2010; Harmon, 2006). Ryes (2011) includes a peer mentor's response to mentoring as helping mentees 'schedule their time around class not schedule their time around friends.' Mentors offer detailed guidance on challenging tasks in the classroom, providing rewarding learning experiences for students. Online mentoring provides another level of support from peer mentors. It gives both mentor and mentees the opportunity to record online interactions which is helpful for the documentations and sustainability of mentoring programs and training (Harlow, Burkholder, & Morrow, 2006; Leidenfrost, Strassnig, Schabmann, Spiel, & Carbon, 2011). Even traditionally successful students appreciate the assistance and availability of peer mentors in their classroom (Smith, 2007)." (p. 6)

	<p>“The limitations in determining the effect of peer mentoring on academic performance are the limited use of quantitative measures to prove that the undergraduates’ grades improve as a direct result of working with their peer mentors. Hall (2007) discusses the lack of understanding and data regarding the ‘implementation problems and strategies for improving delivery’ of a peer mentoring program in an undergraduate environment.</p> <p>An objective of undergraduate peer mentoring is to retain students who solve their own problems, develop options, unravel obstacles, and establish a process of figuring out solutions. Terrion and Phillion (2008) note ‘that mentor training is indispensable in providing tools and techniques that mentors will use in their mentoring function [including] an ongoing and formal training program which emphasizes an experiential and self-reflexive approach.’ A crucial component of obtaining that goal is to effectively train peer mentors to serve as advocates to freshman undergraduate students.” (p. 6)</p> <p>“This Literature Review adds to the body of research pertaining to peer-mentoring programs by including the socioemotional benefits of mentoring, importance of training mentors, and the need for quantitative research to identify trends. Peer mentors who are trained in using effective leadership skills are taught to create an environment where their mentees are more apt to openly discuss their questions and concerns. Relationship building is at the heart of the peer mentoring program, and mentors trained in conflict resolutions, giving and receiving feedback, and teambuilding will be prepared to assist undergraduates to navigate the transition into college life. The lack of quantitative research and documented methodologies limits the ability for researchers to analyze the trends and influence that peer mentoring has on retaining undergraduate students. Further quantitative research will benefit the leaders in   academic administration who use data to understand the effects of peer mentoring on undergraduates’ academic performance and socio-emotional integration into college life.” (pp. 6-7)</p>
<p><b>Citation</b>          Collier, P. J. (2017). Why peer mentoring is an effective approach for promoting college student success. <i>Metropolitan Universities</i>, 28(3), 9–19.  <a href="http://doi.org/10.18060/21539">http://doi.org/10.18060/21539</a></p> <p><b>Abstract</b></p>	<p><b>Conclusions</b></p> <p>“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.” (p. 9)</p> <p>“Hierarchical mentoring for college students involves individuals from two different social positions, such as faculty member–student, adviser–student, or counselor–student...Peer mentoring describes a relationship where a more experienced student helps a less experienced student improve overall</p>



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

academic performance and provides advice, support, and knowledge to the mentee (Colvin & Ashman 2010).” (p. 10)

“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.” (p. 11)

“Peer mentoring programs typically are less expensive 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.” (p. 12)

“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).” (p. 12)

“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

studies exploring the relative effectiveness of both approaches and how to best combine approaches in complimentary ways to help administrators make informed decisions.

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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." (p. 12)

"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." (p. 13)

"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." (p. 13)

"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." (pp. 13-14)

"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." (p. 14)

"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." (p. 15)

	<p>“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.</p> <p>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[sic] ways.” (p. 15)</p>
<p><b>Citation</b>  Cornelius, V., Wood, L., &amp; Lai, J. (2016). Implementation and evaluation of a formal academic-peer-mentoring programme in higher education. <i>Active Learning in Higher Education</i>, 17(3), 193–205.  <a href="http://dx.doi.org/10.1177/1469787416654796">http://dx.doi.org/10.1177/1469787416654796</a></p> <p><b>Abstract</b>  Formal mentoring programmes continue to gain popularity in higher education, mirroring trends in industry. The study described in this article examines the design features of a formal mentoring programme for first year undergraduates</p>	<p><b>Conclusions</b>  “...The research   question that ultimately drives this study is ‘To what extent do the mentoring programme design features affect student engagement and transition?’” (pp. 196-197)</p> <p>“The mentoring programme, First STEP (Striving Towards Excellence Program), with both academic-to-student and peer-to-peer mentoring components, was designed and implemented within a metropolitan Australian university in 2012 (Cornelius and Wood, 2012). The First STEP Mentoring Program targets first year undergraduate students from business-related degree programmes including accounting, actuarial, finance, commerce and law. The programme was implemented in 2012 as a pilot programme and then more broadly to all first year undergraduate students in the Faculty in 2013. For the pilot, 32 students, 10 academic mentors and 5 peer mentors participated (Table 1). Through the programme, first year students had the opportunity to meet individually with an academic mentor as well as a peer mentor to discuss any issues or challenges they might be facing in their transition into the university environment. The programme provided a forum to build closer relationships with the academics in the Faculty. Due to the success of the pilot programme, more peer and academic mentors were invited to participate in First STEP in 2013, and over 130 student applications were received.</p>

and focused on three key aspects--the matching process, training and orientation, and interaction frequency. The programme allows mentees to interact vertically with academics and horizontally with peer mentors. The results indicate that students completing the programme have positive transition experiences and become more engaged and integrated into the university. The experience gained in this study can be transferred to other higher education institutions that are in the process of either designing or implementing formal mentoring programmes. Implications of formal mentoring programmes and recommendations for future research are discussed.

### Limitations

“...It should be acknowledged that the instruments used sought only views on the benefits, not the issues or difficulties, of those participating in this programme, and so future work will need to look at the challenges and difficulties experienced in such programmes.” (p. 202)

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Feedback from the academic mentors in the pilot suggested that around five students per group were preferable, and therefore, 100 first year undergraduate student mentees were selected. The first year students chose to participate in the First STEP Mentoring Program largely to build strong relationships with academics in the Faculty, to assist in their transition into the university environment (and to the country for international students) and as a way to meet other students.” (p. 197)

“Although it is a formal mentoring programme, participation was voluntary. Student mentees were encouraged to meet their academic mentors three times throughout the 12-week semester, including twice during the first 6 weeks, to allow the mentors and student mentees to build trust and rapport in the relationship in the early stage. They met once more before the examination period. In terms of the structure of the one-to-one meetings, the student mentees were responsible for preparing an agenda and some specific goals they wanted to achieve from the partnership. The programme guidelines also required the participants to complete a formal mentoring agreement in their first meeting to outline the roles and responsibilities, frequency of meetings, preferred forms of communication and so on. This helped provide some structure to the mentoring partnership and manage participant expectations. Each mentoring group was assigned a peer mentor (a third or fourth year student in the Faculty). The peer mentors helped set up the individual meetings between the academics and students, thus saving time for the academics. The peer mentors also arranged for their group of five students to get together twice to socialise and network. The First STEP Mentoring Program was launched at the start of the semester with the support from top management in the Faculty and University. Prior to the launch, student participants completed an online training session introducing the programme guidelines.” (pp. 197-198)

*Programme features.* The programme features changed to accommodate the increase in the number of first year students in the programme as well as to improve the overall student experience. *Matching process.* The Faculty set up an online self-selected procedure for mentees to indicate their mentor preferences, using the profiles of the academics. Students reviewed the profiles and nominated their top three preferences. In all, 44% of students were allocated mentors of their first preference. *Participant briefing session.* The second change was the inclusion of a briefing session as an orientation activity for the first year students. For the pilot programme, students were sent a link to online training and asked to familiarise themselves with the programme information. Many of the participants in the pilot did not have a chance to review the materials or did not have a proper understanding of the actual process. Participants recommended that the materials needed to be delivered in person. Therefore, a face-to-face orientation session was incorporated into the training. The peer mentors described the programme requirements and answered any questions using ice

breaker activities. Other programme features of First STEP Mentoring Program included training for the academic and peer mentors about their roles and responsibilities, the provision of mentoring resources, a formal launch, mid-session workshop, food vouchers for the peer mentor group meetings and programme monitoring.” (p. 198)

“Interviews were conducted with the student mentees immediately after the completion of the programme. In Semester 1, all the students participating in the First STEP Mentoring Program were contacted by phone and were asked to take part in face-to-face interviews which were conducted by the programme manager on campus. Among the 32 student mentees participating in the pilot programme, 19 of them agreed to take part in the survey voluntarily with a response rate around 60%. In Semester 2 of the study, phone interviews were conducted with student participants, with 45 of 100 first year students participating in the phone interview, thus a response rate of 45%.” (p. 198)

“Both quantitative and qualitative data were collected in the interviews. The questions used in the interviews were designed by the programme manager and reviewed and revised by an additional researcher. Semester 1 of the interview consisted of six sections asking students’ opinions of the following: the meeting process, training and orientation provided, relationship with mentors, sense of belonging, transition experience and commitment/engagement.” (p. 198)

“...The majority of student participants were able to meet their mentors at least twice in the first 6–7 weeks of the session ( $x = 41.8$ ), and the majority of commitments around meeting time were kept ( $x = 42.8$ ). Frequent and early contact with mentors enabled the mentors and mentees to develop a high level of trust and rapport ( $x = 41.9$ ). This interpretation supports the argument of Liang et al. (2008) that frequent interaction between mentees and mentors encourage the development of a positive mentoring relationship. In relation to the training materials and orientation provided, student participants agreed that the materials provided the structure they needed while allowing them the freedom to direct their own partnership ( $x = 37.1$ ). In addition, student participants commented that the orientation session with peer mentors at the launch was helpful in gaining more information on the mentoring process ( $x = 40.0$ ). The orientation activity enabled students to get the mentoring partnership off to a quick start ( $x = 35.9$ ). The results consistent with the previous studies that offer orientation and training activities for mentees prior to programme participation may make mentorships more rewarding (Allen et al., 2006). In general, mentees felt strongly that academic mentors provided valuable support through giving and accepting feedback ( $x = 43.2$ ). Students believed that the interaction with academic staff through the programme made a difference to their sense of belonging to the Faculty ( $x = 40.7$ ). The feedback from their assigned mentoring partner gave | students a better

understanding of the university ( $x = 43.2$ ) and increased the speed of their transition into university life ( $x = 40.3$ ). Students agreed their participation positively influenced their commitment to the Faculty or University ( $x = 40.3$ ). Results especially indicate the positive relationship between interaction with academic mentors and sense of belonging of mentees towards the university.” (pp. 199-200)

“The self-selection approach was positively received by students as they had active involvement in the decision, thus making them more committed to the overall process. One participant ‘Liked the fact that the student was more involved with the decision around selecting a mentor’. Another commented, ‘Felt in control and as if you had a choice’. Students actively read the profiles of the academics and had prior knowledge of their chosen academics. One student commented that ‘I can choose what I want, not just assigned a mentor’. Another student explicitly praised the programme as a ‘Very good process, more choice, more autonomy and more control. If not we would not be as willing and involved’. The student mentees stated that they would have benefited more from the entire programme if both parties had been able to meet more frequently and commitments around meeting times had been kept. There were two mentoring partnerships that were not successful because the academic and peer mentor did not commit entirely and eventually left the programme.” (pp. 200-201)

“Three key topics were discussed: career, personal issues and study. The interaction between mentors and mentees provides an added dimension to the learning experience with ‘real-world’ perspectives, and it is also a starting point for students to identify their career directions. Student participants wanted to discuss their career paths and future employment opportunities. The second area focused on personal issues and included topics such as time management, personal goals and transition to university life. One participant said, ‘I needed help in getting around university, as I kept getting lost and was not able to read the timetable’. Another participant commented that the discussions were around ‘settling down, getting a part-time job, how to do well at university and how to be social’. The third area focused on study. Many of the student participants wanted to discuss with their academic mentor about how to study at university and how to be successful in their courses. One participant said, ‘I want to know how to study, what questions to ask in class...tips for communicating with tutors’.

A recurring theme was that the academic mentor was ‘helpful’. Students found the partnership with their assigned academic mentor supportive and of great benefit in their transition into university life. One participant said that their academic mentor ‘...was helpful in getting his head around things at university...’ and another commented, ‘...my academic mentor helped me settle down as I had moved from Adelaide’. Another key theme found in the open-ended questions was the development of

‘strong relationships’ among student participants, academic and peer mentors. Students felt that they developed strong relationships through the programme with both their academic and peer mentors. One student participant commented, ‘...my relationship with my academic mentor was like a friendship, he was approachable and easy to talk to’.

Student participants were also asked to list the benefits obtained through their participation. The researcher grouped the benefits into four main areas, namely, meeting people, transitioning into a new environment, better understanding of the university and learning how to study. Approximately two-thirds of the participants in the interviews indicated that meeting people was one of the most important benefits. This included having a connection with their assigned academic mentors and a range of associated benefits including networking, advice and improved confidence. One participant said, ‘Without the First STEP program I would not have been able to connect with my academic mentor. My mentor provided good advice’. Another commonly cited response was assistance in transitioning into a new environment and how the programme allowed students to assimilate into university life, become more engaged and establish a new routine more smoothly. This was particularly the case for international students. One participant said, ‘Great opportunity for those transitioning to Australia into a completely different environment...my academic provided great feedback and support to get you used to your new life and surroundings’.” (p. 201)

“A third benefit focused on developing a better understanding of the university. Many of the responses concentrated on how the programme enabled them to learn about the university, its systems and how it functioned. One participant commented, ‘Good insight into day-to-day university life’. Another participant said, ‘Showed you how things work within university’. The final benefit area focused on study. Many of the participants felt that the programme helped them learn how to study within the university environment. One participant said, ‘Learning how to study by focusing on important content, what you have to do to get distinctions, importance of studying each week’. Students also discussed challenges they encountered in the First STEP Program. For instance, student participants would have liked their peers to be more engaged in the programme. One mentee felt that the mentoring group was not proactive enough, as only three instead of five attended the | meetings, thus reinforcing the point that, as in any relationship, it is essential for both mentees and mentors to keep regular appointments and to be engaged (Colvin, 2015).” (pp. 201-202)

“While most studies investigated the transition to the workforce (Johnson et al., 2010), this study emphasised the first year transition to university using a formal mentoring programme. This study investigated the programme design features – the matching process, training and orientation, and interaction frequency as these are the critical factors in determining the success of formal mentoring.



	<p>The most important result is that the matching process in a formal mentoring programme is critical. Some studies have been able to show the linkage between input into the matching process and satisfaction/commitment levels with formal mentoring; however, the majority of these studies have been in the business and corporate settings. This study shows that giving student mentees discretion in selecting mentors using an online matching process is viewed favourably by mentees. In addition, the provision of face-to-face and online training materials and training sessions helped participants become familiar with the programme and better understand the requirements. Results show that face-to-face orientation and training materials are essential. Third, the results show that regular and frequent meetings between mentors and mentees and programme commitment from mentors and mentees are critical. Meeting three times during a 12-week session, the number of meetings held during this programme, facilitated the development of positive mentoring relationships. The results indicate that mentoring experiences positively influence the student's level of social and academic integration into university life. The results can be explained by Tinto's theory of student integration and social support theory. When students gain support and interpersonal resources from their mentors, they are able to enjoy a better transition experience and will become more engaged and committed to the university." (p. 202)</p>
<p><b>Citation</b> Dennehy, T. C., &amp; Dasgupta, N. (2017). Female peer mentors early in college increase women's positive academic experiences and retention in engineering. <i>Proceedings of the National Academy of Sciences of the United States of America</i>, 114(23), 5964–5969. <a href="https://doi.org/10.1073/pnas.1613117114">https://doi.org/10.1073/pnas.1613117114</a></p> <p><b>Abstract</b> Scientific and engineering innovation is vital for American competitiveness, quality of life, and national security. However, too few American students, especially women, pursue these fields. Although this problem has attracted enormous attention, rigorously tested</p>	<p><b>Conclusions</b> “We conducted a multiyear longitudinal field experiment investigating whether a peer mentoring intervention, with advanced students as mentors, would increase the success of women who are beginners in engineering.” (p. 5965)</p> <p>“...We recruited 150 female students, all incoming majors in engineering at a public university, by sending mass emails to all women in each entering class. Participants were randomly assigned to one of three conditions: one-third was assigned to female peer mentors, one-third to male peer mentors, and the rest had no mentor (control group). Mentor–mentees met in person roughly once a month and mentors kept track of their interactions using online surveys. All were blind to experimental hypotheses (see details in SI Materials and Methods). Mentoring relationships lasted for 1 y. We surveyed mentees' experiences in engineering at three time points during year 1: before mentor assignment at the beginning of the year, and then at the middle and end of the academic year when mentoring relationships were active. A fourth survey was administered 1 y after mentoring had ended (year 2). We measured participants' belonging in engineering, self-efficacy, feelings of threat and challenge, career aspirations, and global appraisals of engineering. College transcripts, obtained from the university registrar with students' consent, provided grades and retention information in engineering majors.” (p. 5965)</p>

interventions outside artificial laboratory settings are quite rare. To address this gap, we conducted a longitudinal field experiment investigating the effect of peer mentoring on women's experiences and retention in engineering during college transition, assessing its impact for 1 y while mentoring was active, and an additional 1 y after mentoring had ended. Incoming women engineering students ( $n = 150$ ) were randomly assigned to female or male peer mentors or no mentors for 1 y. Their experiences were assessed multiple times during the intervention year and 1-y postintervention. Female (but not male) mentors protected women's belonging in engineering, self-efficacy, motivation, retention in engineering majors, and postcollege engineering aspirations. Counter to common assumptions, better engineering grades were not associated with more retention or career aspirations in engineering in the first year of college. Notably, increased belonging and self-efficacy were significantly associated with more retention and career aspirations. The benefits of peer mentoring endured long after the intervention had ended, inoculating women for the first 2 y of college—the window of greatest attrition from science, technology, engineering, and mathematics (STEM) majors. Thus, same-gender peer mentoring for a short period during developmental transition

“Male and female mentors did not differ in the quality or quantity of their interactions with mentees. Participants perceived their mentors to be equally supportive regardless of mentor gender; they admired and felt connected to all mentors regardless of gender; and they met equally frequently regardless of mentor gender, all indicating that male and female mentors were equally conscientious (Tables S1 and S2). The only advantage for female mentors was that women mentees felt somewhat closer and more similar to female mentors than male mentors.” (p. 5965)

“In terms of belonging in engineering, women with no mentors and those with male mentors reported steep declines in feelings of belonging in engineering from the beginning to end of the first year ( $B = -0.45$ ,  $SE = 0.17$ ,  $P = 0.007$ , and  $B = -0.42$ ,  $SE = 0.18$ ,  $P = 0.02$ , respectively), whereas women with female mentors maintained positive belonging that did not change across the first year of college ( $B = 0.13$ ,  $SE = 0.18$ ,  $P = 0.46$ ). Comparing change trajectories between conditions, women with female mentors reported more stable belonging than those without mentors ( $B = 0.58$ ,  $SE = 0.25$ ,  $P = 0.03$ ) or with male mentors ( $B = 0.58$ ,  $SE = 0.25$ ,  $P = 0.024$ ). Women with male mentors did not differ from those without mentors ( $B = -0.04$ ,  $SE = 0.26$ ,  $P = 0.89$ ) (Fig. 1). We next examined the impact of mentoring on students' self efficacy in engineering. Women without mentors showed steep declines in self-efficacy across the first year ( $B = -0.63$ ,  $SE = 0.17$ ,  $P < 0.001$ ), as did those with male mentors ( $B = -0.29$ ,  $SE = 0.17$ ,  $P = 0.08$ ). In contrast, women with female mentors maintained positive self-efficacy that did not change ( $B = 0.03$ ,  $SE = 0.17$ ,  $P = 0.862$ ). Comparing change trajectories between conditions, students with female mentors reported more stable self-efficacy than those with no mentors ( $B = 0.66$ ,  $SE = 0.24$ ,  $P = 0.007$ ). Male mentors fell in-between and did not differ from either group (SI Results) (Fig. 2).” (p. 5965)

“Female mentors also affected the degree to which students' anxiety about engineering (threat) was offset by their belief that they possessed skills to overcome academic difficulties (challenge)...Women with no

points promotes women's success and retention in engineering, yielding dividends over time.

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mentors felt increasingly threatened more than challenged as the first year progressed ( $B = 0.32$ ,  $SE = 0.13$ ,  $P < 0.001$ ), as did those with male mentors ( $B = 0.17$ ,  $SE = 0.09$ ,  $P = 0.059$ ). In contrast, women with female mentors did not show | any change in threat vs. challenge across the year ( $B = 0.07$ ,  $SE = 0.09$ ,  $P = 0.445$ ). Comparing change trajectories between conditions, women with female mentors exhibited significantly less rise in threat vs. challenge than those with no mentors ( $B = -0.25$ ,  $SE = 0.13$ ,  $P = 0.047$ ). Students with male mentors fell between the other two conditions, nonsignificantly different from both (Fig. 3)." (pp. 5965-5966)

"Although thoughts about switching majors looked similar for the two mentor conditions, when it came to actual decisions to stay or leave, female mentors were more beneficial: 100% of women with female mentors remained in engineering majors at the end of year 1 compared with 82% with male mentors, and 89% without mentors ( $\chi^2 = 8.19$ ,  $P < 0.01$ , Cohen's  $d = 0.48$ ) (Fig. 4)." (p. 5966)

"In terms of after-college aspirations, women with no mentors and male mentors showed declining intentions to pursue advanced degrees in engineering ( $B = -1.06$ ,  $SE = 0.25$ ,  $P < 0.001$ , and  $B = -0.71$ ,  $SE = 0.24$ ,  $P = 0.003$ , respectively), whereas those with female mentors maintained consistent intentions to pursue advanced degrees in engineering over time ( $B = -0.06$ ,  $SE = 0.23$ ,  $P = 0.806$ )." (p. 5966)

"Although the effects of male mentors sometimes mimicked those of female mentors, women's outcomes in the male-mentor condition tended to be weaker and no different from the control condition, with one exception. Women with male mentors showed stable engineering grade point averages (GPAs) across 2 y ( $B = -0.0004$ ,  $SE = 0.007$ ,  $P = 0.952$ ), whereas women with female mentors and no mentors showed typical GPA declines as coursework became more advanced ( $B = -0.014$ ,  $SE = 0.006$ ,  $P = 0.038$ , and  $B = -0.02$ ,  $SE = 0.006$ ,  $P = 0.003$ , respectively) (39) (Fig. S3)." (p. 5967)

“Several findings suggest that the stable GPA advantage for women with male mentors is not a good predictor of women’s retention and career aspirations in engineering. Rather, subjective feelings of belonging and self-efficacy in engineering are strongly implicated in retention and persistence in engineering (40). First, year 1 GPA was not significantly associated with women’s retention in engineering majors (Wald  $\chi^2 = 0.37$ ,  $P = 0.542$ ), whereas social belonging and self-efficacy at the end of year 1 were both significantly associated with retention in engineering in year 1 (Wald  $\chi^2 = 4.65$ ,  $P = 0.031$ , and Wald  $\chi^2 = 16.35$ ,  $P < 0.001$  respectively). Second, recall that engineering retention for women with male mentors was significantly lower | (82%) than for those with female mentors (100%) and no different from controls (89%). Third, GPA for students with male mentors did not correlate with their feelings of belonging in engineering ( $r = -0.04$ ,  $P = 0.82$ ), thoughts of switching majors ( $r = -0.03$ ,  $P = 0.87$ ), interest in pursuing engineering careers ( $r = -0.11$ ,  $P = 0.57$ ), or advanced degrees ( $r = -0.06$ ,  $P = 0.76$ ) (Table S4). Fourth, although second-year GPA was significantly associated with engineering retention aggregated across all conditions (Wald  $\chi^2 = 7.21$ ,  $P = 0.007$ ), by this time women with male mentors [mean (M) = 3.14, SE = 0.12] and female mentors (M = 3.08, SE = 0.12) had similar GPAs [ $t(63) = 0.38$ ,  $P = 0.708$ ]. In sum, the stable GPA advantage for women with male mentors does not translate to better retention and career aspirations for women in engineering.” (pp. 5967-5968)

“In conclusion, same-gender peer mentoring during the transition to college appears to be an effective intervention to increase belonging, confidence, motivation, and ultimately retention of women in engineering. Our findings make four contributions that advance knowledge about how best to increase and sustain gender diversity in STEM. First, our data show not all peer mentors are equally effective even though the objective content and frequency of mentor–mentee interactions may be similar. Shared identity matters for retention and other engineering outcomes. Second, female mentors protect women’s feelings of belonging and connection to other peers in engineering during their first year in college, when they are most vulnerable to self-doubt; greater belonging in turn protects women’s aspirations to pursue careers in engineering after college. Third, contrary to common wisdom, better performance in engineering courses (higher GPA) does not necessarily correspond to stronger feelings of belonging or more intentions to pursue engineering careers and advanced degrees. Instead, women’s subjective experiences in engineering—notably their feelings of belonging and self-efficacy—predict retention in engineering majors and engineering career intentions. Fourth, the benefits of same-gender peer mentors endured long after mentoring had ended, inoculating women for 2 y of college, the window of greatest attrition from STEM majors (41).” (p. 5968)

	<p>“Although female peer mentors had significantly more desirable effects on first-year women in engineering, this does not mean male mentors are unimportant. We expect that female mentors’ support will become less critical as women move beyond the college transition, at which point male and female mentors may be equally effective (42). This speculation is consistent with the Stereotype Inoculation Model (6, 10), which identifies developmental transitions, such as the beginning of college, as times of special vulnerability to negative stereotypes. Moreover, whereas our intervention focused on peer mentors, male faculty who are scientists and engineers likely play important roles as advisors and career sponsors.” (p. 5968)</p>
<p><b>Citation</b>        Egege, S., &amp; Kutieleh, S. (2015). Peer mentors as a transition strategy at University: Why mentoring needs to have boundaries. <i>Australian Journal of Education</i>, 59(3), 265–277.  <a href="https://doi.org/10.1177/0004944115604697">https://doi.org/10.1177/0004944115604697</a></p> <p><b>Abstract</b>        Peer mentoring is often considered the single most effective strategy for increasing student retention and student satisfaction. As a consequence, mentoring programs have been implemented at most universities and are an essential feature of best practice transition programs. Yet, the literature is inconsistent regarding what the term entails and how it is applied, leading to diverse opinions about what constitutes a mentoring program. It could be argued that agreement on a definition of mentoring is secondary to the benefits of its practice and that an emphasis on terminology is just playing semantics. However, this article argues that</p>	<p><b>Conclusions</b>        “...A literature review was undertaken to ascertain whether or not the diversity of the mentoring programs mattered, given that each program might still achieve the same or similar beneficial outcomes for commencing students. The review was driven by the following questions, namely (1) was there a preferred standard model of peer mentoring or an example of best practice; (2) was there an agreed set of mentor functions and/or mentee outcomes and (3) did it matter if there was diversity in mentoring programs?” (p. 267)</p> <p>“In order to address these questions, various literature reviews of the mentoring literature were examined, namely the works of Jacobi (1991), Ehrich, Hansford, and Tennent (2004), Terrion and Leonard (2007), Crisp and Cruz (2009), Haggard, Dougherty, Turban, and Wilbanks (2011) and Gershenfeld (2014). These reviews cover around 40 years of mentoring literature, drawing predominantly from business and higher education. Within universities and colleges, the literature is predominantly from within psychology and education. It should be noted that the reviews predominantly cover practices in the U.S – in fact Jacobi’s review focussed exclusively on U.S. studies.” (p. 267)</p> <p>“...According to Crisp and Cruz (2009, p. 525), the proliferation of programs with a mentoring component indicate it has become a ‘national priority’ in higher education institutions in the U.S. With only two exceptions, all the articles identified in their review reported positive effects from mentoring, ranging from retention to comfort to persistence to improved grade point average (GPA) (pp. 532–533). Similar findings were drawn from the research by Gershenfeld, including positive role modelling and added social capital (2014, Table 1). Ehrich et al. (2004), who focus on formal mentoring programs, comment on the general acceptance in the literature of the benefits of mentoring and highlight positive career outcomes and psychosocial support as two key benefits of the professional mentoring relationship (p. 520). Within the educational context, they identified four key</p>

terminology does matter and that elucidating what mentoring entails is crucial to the comparative evaluation and improvement of mentoring practice as well as the identification of best practice. The article goes on to suggest how mentoring boundaries might be set by drawing on experiences from an Australian University.

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areas – (1) support, friendship, empathy; (2) help with strategies, subject knowledge; (3) discussion, advice, sharing; (4) feedback, constructive criticism. Research within Australian universities seems to concur with these findings. The Hobson Retention Project (Adams et al., 2010), which surveyed some 17 institutions, listed peer mentoring (peer transition programs, peer tutoring, PASS: Peer-assisted study sessions) as the topmost intervention strategy to combat attrition at university and as an indicator of best practice in transition and retention strategies. Nelson et al.’s (2012) review of the First Year in Higher Education literature, noted the increase in the use of peer support programs as a transition strategy for engaging students. As in the U.S., peer mentoring programs in Australia have become a well established part of any good quality orientation and transition strategy. The prevalence of peer mentoring, peer support or peer-assisted learning programs all point to the widely held belief in their efficacy to fill gaps in academic or institutional support, as well as their overall usefulness in providing new students with access to social networks.” (pp. 267-268)

“However, while the value of mentoring is widely accepted and reported, there is what Ehrich et al. (2004) term the ‘dark side’ to the mentoring literature, first identified by Jacobi (1991). Her early review of mentoring identified several issues for concern in the literature, the most significant of which was the lack of a ‘widely accepted operational definition of mentoring’. She pointed to the various settings in which the mentoring concept appeared – such as in the business world and higher educational settings like psychology and education – and demonstrated that different concepts of mentoring were used in each sphere. In fact, she argued that no definitions of what the term entailed were provided in the literature under review, which made it difficult to identify or explicate the practices that were incorporated under the term ‘mentoring’. The role of the mentor was equally vague, with very few researchers specifying the functions of the mentoring role and, where they did, there was little evidence of consensus in the field. She identified a minimum of 15 different functions that fell loosely under three broad categories of the mentor–mentee relationship – (1) emotional and psychological support; (2) direct assistance with career and professional development and (3) role modelling (p. 510). A consequence of this vagueness was its impact on the relevance and rigour of the subsequent research findings. Even though there may be, in fact, a positive benefit to having a mentor or from participating in a mentoring program, it is difficult to see how this can be measured and then compared to other initiatives unless one is clear about what practice is under examination. As Jacobi stated (1991, p. 17), ‘methodological rigour is clearly necessary to fully understand the impact of formal mentoring programs’, but this is further complicated by the fact that mentoring programs are ‘so diverse they actually have little in common’. This deficit meant that research findings illustrating the benefits of mentoring were unlikely to be repeatable and the findings could not be (and should not be) generalised across the mentoring field.” (p. 268)

“Several key messages emerge from the literature. First, despite the lack of rigour in some of the research, it is clear that mentoring is still considered to be a beneficial intervention and that mentoring programs have broad institutional support. Second, it is equally clear that there is no apparent single mentoring model and there is no widely accepted definition of mentoring. Mentoring programs do not even cluster around a broad, but common, axis. There is no model that constitutes best practice. Third, this lack of clarity has made rigorous evaluation of even single mentoring programs problematic, thereby reducing the generalisability of any possible benefits that result from mentoring. There are currently too many unknown variables. This means that empirically based, cross- institutional comparisons of the impact of mentoring programs are highly unlikely to be useful. At a minimum, one would need to know what the objectives of the mentoring programs are and what the functional role of the mentor is. Even intra-institutional comparisons would only be possible if there were enough commonalities between the types of programs in place, their objectives and their implementation. As Jacobi pointed out, the reported benefit of mentoring could be just as much a function of the mentee’s characteristics as it is the result of the mentor (1991, p. 516). This possibility is suggested by Haggard et al.’s findings (2011, p. 296), which indicate that the personality characteristics of both mentors and mentees ‘influence the extent of | positive and negative mentoring experiences’.” (pp. 270-271)

“While it seems impractical to rigidly specify what a mentoring program should entail, given the diversity of Schools, cohorts and even institutions, there does need to be a clearer conception of what one means by mentoring program or mentor. When a term is so broad that anything can fall under its aegis, it starts to become meaningless. It should be possible to define what is meant by a mentor and, hence, a mentor program. A little consistency would enable more effective evaluation of the impact of mentoring on things like student | satisfaction, GPA or retention. This is particularly critical in an environment of cost cutting and competition for financial resources. It is also part of the process of trying to build on past practice to turn it into best practice. At this point in time, there appears to be no best practice model of mentoring.” (pp. 271-272)

“Although critical of the research on mentoring, Jacobi did manage to isolate a few commonalities amongst the various aims and objectives of the mentoring programs, in terms of the functions of the mentor. In particular, she isolated three distinct roles that mentors were often accredited with playing – providing psychosocial support; being a role model and providing career or professional advice (1991, p. 510). Crisp and Cruz and Gershenfeld acknowledge the conceptual work done by Nora and Crisp (2007) who identified four ‘latent variables’ or constructs within the mentoring concept. Three



of these were similar to Jacobi's, with academic knowledge and support as an additional variable. These are useful delineations of the mentoring role." (p. 273)

"The functional role of the (peer) mentor raises two facets that are often neglected in the mentoring research – the relevance of the characteristics of the mentor on the effectiveness of the mentoring program in achieving its goals and the importance of mentor training. It is likely that these two features were considered largely irrelevant in the typical business model of an informal dyadic mentoring relationship. Mentors chose mentees or were approached to act as a mentor based on their personal characteristics or knowledge.<sup>2</sup> No training was given or expected. A similar scenario seems to operate with the Faculty staff/student mentoring model common in the U.S. However, it is not irrelevant in a formal school-based or broad cross-institutional peer mentoring program of one to many. While the peer mentor is frequently given, the credit for positive outcomes in the literature, their individual traits are an unaccounted variable in the data analysis. In reality, potential mentors are carefully selected, most frequently for altruistic traits, and training is provided. Feedback we received from mentors about their own motivation listed the desire 'to inspire others', 'to assist other students', 'to offer support', or 'to give back to the Uni'. Typical ways they characterised themselves were as empathetic, a good listener, friendly, compassionate and caring. It is, thus, worth noting that the benefits of mentoring programs rise proportionally to the rapport mentors build with their mentees and that their success may be a function of the individual characteristics of the mentors. The vast majority of peer mentors are unpaid volunteers and this in itself may influence the type of person who becomes a peer mentor. Peer mentor training is another variable that is seldom addressed, yet it provides the necessary tools and techniques a mentor needs to engage with their mentees, such as communication techniques or icebreakers and information about services and supports. Access to training is likely to improve the quality of the mentor and their effectiveness in dealing with students potentially at risk. Mentor comments from our own training programs support this. Participating students claimed to appreciate the cultural diversity awareness components and the information on what and where to seek support, which they may not have been aware of." (pp. 274-275)

"Identification of mentor characteristics and delineation of what constitutes a mentoring program may lead to the exclusion of some of those, albeit useful, peer support programs with a largely academic focus and which are compulsory for both student and peer supporter. Likewise, drop-in centres or other casual peer support interactions may fall outside the domain of mentoring. This does not mean such programs should not be implemented. However, in order to evaluate the effectiveness of mentoring programs as a retention strategy, some boundaries need to be set to ascertain how one initiative differs from others. The onus would be on mentor program coordinators to demonstrate that



	<p>their program is (a) about mentoring and (b) achieving the desired results in the most cost-effective way. This would be assisted by mentoring research becoming sufficiently rigorous to provide evidence of best practice in mentoring programs. Such knowledge, in turn, would enable universities to make informed decisions about which programs to fund, not only in order to retain students but also to provide them with the best possible student experience.” (p. 275)</p>
<p><b>Citation</b>  Flores, G. &amp; Estudillo, A. G. (2018). Effects of a peer-to-peer mentoring program: Supporting first-year college students’ academic and social integration on campus. <i>Journal of Human Services: Training, Research, and Practice</i>, 3(2), 1–25.</p> <p><b>Abstract</b>  This paper presents findings from a peer-to-peer mentoring program supporting ethnically diverse first-generation students at a mid-sized university in the Southwest. Research on mentoring during the undergraduate years has placed emphasis on the quality of lived-collegiate experiences from both a peer-mentor and mentee perspective (Crisp, Baker, Griffen, Lusnford, &amp; Pifer, 2017). Using a mixed methods approach, two survey instruments and qualitative analysis, interviews with peer-mentors and mentees suggested student development occurred through various means: (i) academics, (ii) university involvement, and (iii) the reinforcement of friendship. These findings reinforce theory first drawn from Tinto’s (1993) student integration</p>	<p><b>Conclusions</b>  ““We examined the effectiveness of a peer-to-peer mentoring program within a mid-sized Southwestern public university, of which continuously enrolls large percentages of historically underrepresented ethnic-racial minority students (roughly 40%). This study is presented out of recent years of having developed, monitored, and redesigned this mentoring program.” (p. 7)</p> <p>“In order to gain a comprehensive understanding of the mentoring effectiveness of this peer-to-peer mentoring program, our study presents results of a mixed method analysis. First, qualitative analysis explored peer-mentors’ and mentees’ perceptions of the mentoring process as it relates to improving ethnically diverse first-generation college students mentoring experiences in college...Using purposive sampling, interviews from mentees and peer-mentors were later conducted and analyzed in order to gain further in-depth information. The interviews were approximately 20 to 30 minutes in length, exploring the phenomenology of program effectiveness by looking at the themes of mentoring experiences and expectations. Participants were encouraged to give a full description of their experience, including their thoughts, feelings, images, and memories.” (p. 8)</p> <p>“Second, the quantitative analysis consisted of two survey instruments designed for each of the stakeholders in the program: the mentees and peer-mentors.” (p. 8)</p> <p>“Questions on the survey were as follow: how satisfied were you with the matching of your peer-mentor, how often did you meet with your peer-mentor, in what areas was your peer-mentor the most helpful in, what areas would you have liked for your peer-mentor to have been of more assistance, and how was your overall experience with your peer-mentor etc. Additional questions were included pertaining to the mentoring program and other questions were geared towards their relationship with their peer-mentor and others about their experience.” (p. 9)</p> <p>“Participants of the mentoring program consisted of a diverse pool of mentees and peer mentors, all who attended a mid-size university in the Southwest region of the United States. There was a diverse representation among stakeholders in regards to race, ethnicity, gender, classification, majors,</p>

perspectives (e.g., academic and social integration). Peer-mentors fulfilled their roles, while mentees who were actively involved in the program reported to have benefitted the most. The effectiveness of the mentoring program highlighted contributions to enhancing, at least one of the following, for all mentees: first-year experience, degree of college involvement, and overall retention rate.

### Limitations

“...Thus, one methodological limitation consists of the lack of generalizability of findings since this study was only conducted at a single institution. Like many other institutional mentoring programs, this program was designed for a particular student population (i.e., first-year students). This also limits the generalizability and replicability of mentoring programs from which researchers and practitioners can make comparisons or draw conclusions for their own programs or institutions.” (p. 19)

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geographic upbringing, parental education, socioeconomic status, and career aspirations. Peer-mentors were selected from a diverse and competitive pool of applicants in order to ensure wide representation from which mentees could select a peer-mentor from. Peer-mentors were mainly selected based on quality of their applications, interviews, and their ability to demonstrate mastery in balancing their academic and social lives. This was proven by their average GPA of a 3.0 and above and leadership involvement in various organizations.” (p. 9)

“Also, all the peer-mentors were heavily involved in at least three campus organizations where they held at least one leadership position. They all had at least one on-campus job or internship and they were all recognizable leaders on campus who were highly supported as evidenced by their letters of recommendation. The primary reason for selecting these students as peer-mentors was because they were well-rounded college students who demonstrate the capacity of mentoring a group of first-year students. As established in the literature, there are many benefits that come from students’ active involvement and participation in organizations | outside of the classroom (Tinto, 1993). As for the mentees, everyone who joined the mentoring program did so voluntarily base on an invitation that all first-year students received upon completion of orientation. However, only the first 50 students who applied and agreed to all of the mentoring program’s expectations were accepted into the program.” (pp. 9-10)

“Based on the survey findings, the majority (86%) of the mentees expressed that the mentoring program did help to improve their overall college experience. This was significant for the program, especially since over three-fourths of the participants identified as being a part of an underserved group (i.e., first-generation, lower socioeconomic status, students of color) which commonly have unsatisfactory college experiences compared to students whose parents are college graduates, come from a middle-class background, or identify with the dominant racial group (Tate, 2017). Another major component that greatly contributed to mentees’ positive college experience was their high (80%) satisfaction rate with the matching of their peer-mentor. This was a result of mentees having the option to self-select their own peer-mentor compared to previous years where they were assigned a peer-mentor based on their undergraduate major. This method of self-selection allowed mentees to be held more accountable for both establishing and maintaining a good relationship with their peer-mentor.” (p. 12)

“Moreover, approximately 93% of mentees who completed the survey mention that their peer-mentors encouraged or helped them to become more involved on campus. The top three areas mentees reported that their peer-mentors were of the most assistance were the following: informing them about campus

resources (i.e., tutoring center, career center, wellness center, etc.), helping them adjust to college by giving them advice on the do's and don'ts, and inviting them to attend campus events.” (p. 13)

“Lastly, more than half (63%) of the mentees reported that the mentoring program influenced their decision to remain on campus for the following semester. Students who did not return to the university left for reasons that were out of the program's control such as, students transferring to another institution, family or personal reasons, or financial issues. Also, students who were not as involved or committed to the program were less likely to be involved on campus and more likely to be placed on academic probation. However, students who were actively involved on campus, despite their level of commitment to the mentoring program, shared similar retention rates as those students who were committed to the program.” (p. 13)

“The findings of our study indicate that the effectiveness of this peer-to-peer mentoring program did help to increase the academic and social integration of first-year students on campus. The three most common roles that peer-mentors took on for their mentees were serving as a study buddy, tutor, and academic/accountability coach. All three mentees who were interviewed expressed how their peer-mentor helped them adjust to college by being a point of reference in finding out about various academic resources on campus. For instance, peer-mentors strongly encouraged their mentees to utilize the tutoring center. It was common for peer-mentors to schedule times to study with their mentees. Some peer-mentors even invited their mentees to join them at the library to study together. Through such study groups, peer-mentors were able to teach their mentees how to properly study and prioritize their time. Peer-mentors took their study tactics a step further by serving as tutors for those mentees who were struggling in subject areas in which the peer mentor was strongly competent...As a result of the peer-mentor's strong emphasis on academics, many of the mentees became more comfortable in seeking outside tutoring.” (p. 14)

“All three mentees who were interviewed also shared how their peer-mentors served as accountability partners for them especially, when they were getting off track. For many peer mentors, it was important to help their mentees avoid some of the same mistakes they had made. As students themselves, peer-mentors knew many of the troubles, worries, and temptations their mentees faced. Therefore, they knew how important it was to intervene with certain mentees' about not procrastinating, skipping classes, or not taking college seriously.” (p. 15)

“Another component of academic excellence emphasized by peer-mentors was the need for their mentees to establish relationships with professors. The close proximity of age the peer mentors had

with their mentees made them more susceptible to their peer-mentors' advice particularly, after trust was established. According to two of the mentees interviewed, they looked up to their peer-mentors mainly because they could relate to them on a more personal level than they would with a faculty or staff mentor. Some mentees immediately saw the direct benefit of forming a close relationship with their professors... | Both students followed the advice their peer-mentors gave them about establishing relationships with faculty and staff, and were able to reap the benefits as first year students.” (pp. 15-16)

“In addition to serving as academic tutors/coaches, the interviews revealed how peer mentors reinforced the importance of their mentees to get involved on campus. Peer-mentors did this by encouraging their mentees to join a campus-organization, volunteer, or attend campus events. Through their involvement and participation on campus, the three most common themes mentees shared were: their increase sense of feeling a part of the university, making connections with other students, and stress relief.” (p. 16)

“Moreover, peer-mentors made sure to stress the importance of not becoming overly involved. Instead, they stressed the importance of becoming involved in the right organizations that will help to enhance mentees' leadership, academic, and career goals. Social clubs and intramural sports were included since they too helped to support students' sense of belonging on campus, as well as help college students release stress and network with other students.” (p. 16)

“Furthermore, all three of the mentees who were interviewed expressed a huge amount of gratitude towards the mentoring program specifically, in regards to having an immediate ‘older friend’ or ‘a big brother/sister’ in the person of their peer-mentor. Many of the mentees felt that their transition from high school to college was positive because of their peer-mentor.” (p. 17)

“Moreover, the level of dedication that peer-mentors gave their mentees surpassed their obligations and the expectations set by both the program and their mentees. It was not uncommon for some peer-mentors to take their mentees to lunch or the grocery store. As mentioned in the interviews and surveys, friendship was very important to most, if not all first year students in this program...Overall, peer-mentors helped their mentees beyond academics and campus involvement. Many peer-mentors made their mentees ‘feel more at home’ or motivated their mentees to stay focused, despite the stress of classes. Peer-mentors did a great job of keeping their mentee's informed and answered all their questions, regardless of the topic. If peer-mentors were unable to answer their mentees questions they would find the correct answer through other channels. Unfortunately, a few mentees were not open or

	<p>comfortable asking their peer-mentor certain questions, while others felt that they were well informed about college and didn't need to ask.” (p. 18)</p> <p>“In summary, students who participated in this mentoring program learned a variety of high-impact educational practices that helped them to successfully transition into the collegiate setting. The majority of the mentees reported having received the necessary support and encouragement from their peer-mentors in regard to staying actively involved. For example, many of the mentees kept their academics as a top priority while developing meaningful relationships with other students and institutional gatekeepers, as modeled via the mentoring program. The findings of our study are worthy of further investigation, that include comparisons to outcomes of similar peer-mentoring programs, that assess whether their own program evaluations align with enhancing both the social and academic integration of their respective diverse student population. Furthermore, our study expands upon the present limited literature centered on those contributing factors that are mentorship specific, and others that are dynamic, influential, and directly support ethnically diverse first-generation college students. We encourage additional research that concentrates on the development of mentees over time, before, during, and after participation in a peer-to-peer mentoring like program, their continued enhanced well-being, personal and social.” (p. 22)</p>
<p><b>Citation</b> Graham, J., &amp; McClain, S. (2019). A canonical correlational analysis examining the relationship between peer mentorship, belongingness, impostor feelings, and Black collegians' academic and psychosocial outcomes. <i>American Educational Research Journal</i>, 56(6), 2333–2367. <a href="http://dx.doi.org/10.3102/0002831219842571">http://dx.doi.org/10.3102/0002831219842571</a></p> <p><b>Abstract</b> Disparities in students' psychosocial outcomes are an underresearched area of achievement gap research. Racial-ethnic minorities endorse a lower sense of</p>	<p><b>Conclusions</b> “To shed light on how the psychosocial variables of belonging, impostorism, and college adjustment might manifest in the Black college student experience and how they influence their outcomes, we use the phenomenological variant of ecological systems theory (PVEST). PVEST can be used as a theoretical framework to elucidate how psychosocial variables affect Black college students' academic achievement and adjustment (Cunningham, Corprew, &amp; Becker, 2009; Swanson, Cunningham, &amp; Spencer, 2003). The theory focuses on individuals' perceptions of their experiences, rather than simply the experiences themselves, to help shed light on how individuals make meaning from their experiences (Spencer, 2006; Spencer, et al., 1997).” (p. 2341)</p> <p>“...The current study examines the risk factor of race and the protective factor of mentorship type (i.e., formal or informal) among a sample of Black collegians. In seeking to understand the influence of mentorship type, the current study examines the net stress engagement variables mentorship experiences (i.e., the degree of mentorship students report receiving) and belongingness. The study also examines how students develop reactive coping strategies that determine their emergent identities, such feelings of impostorism. Last, students' life stage outcomes are captured by GPA and</p>

belonging, higher impostorism scores, and decreased college adjustment at predominately White institutions relative to White students and these disparities impact their college outcomes. This study explores how peer mentorship contributes to the academic and socioemotional outcomes of a sample of Black collegians. Furthermore, the study examines whether variations in student outcomes function as a result of the type of mentorship endorsed by students. Results revealed a positive relationship between mentorship, mentorship experiences and college adjustment, and an inverse relationship with impostorism. Furthermore, students with mentors reported significantly higher belongingness and college adjustment scores compared to students with no mentors.

### **Limitations**

“The limitations of this study must be addressed to better understand the applicability of these findings to those outside this sample of students. It is important to note that with any correlational design, causal statements cannot be made. Furthermore, results of the present study should be generalized with caution given the relatively small sample size and the overrepresentation of freshmen and female students...Another limitation in the present study is the unequal group sizes for students with

college adjustment, which accentuates the ways in which they are affected by their experiences.” (pp. 2343)

“Self-identified Black undergraduate college students were recruited via convenience and snowball sampling from a large mid-Atlantic PWI. Students were recruited through the research pool of the psychology department, recruitment e-mails were sent to university professors, and flyers were posted in academic buildings to request participation in the study. Recruitment was also targeted to a university peer mentorship program that is open to all university students but has historically targeted first generation students and racial-ethnic minority students. Data for the current study were collected in combination with a larger study investigating factors that influence academic success and attitudes toward seeking mental health among Black undergraduate college students. Data were gathered using Qualtrics. After completing an informed consent document, participants were directed to the online survey.” (p. 2344)

“The sample for this study consisted of 117 self-identified Black collegians at a PWI.” (p. 2344)

“The data were stratified to determine mentorship status among the sample. Twelve percent of participants reported having both formal and informal mentors, 5% reported having formal mentors only, 32% reported having informal peer mentors only, and 52% of participants reported that they did not have any type of peer mentor. Of the participants who reported having peer mentors, 5% reported they are not very engaged with their mentors (i.e., on a yearly basis), 24% reported they are sometimes engaged (i.e., on a quarterly basis), 19% reported they are moderately engaged (i.e., on a monthly basis), 41% reported they are engaged (i.e., on a weekly basis), and 8% reported they are very engaged (i.e., on a daily basis).” (p. 2344-2345)

“It was theorized that engagement in mentoring relationships would serve as a protective factor for Black college students, specifically for psychosocial outcomes such as sense of belongingness, impostorism, and college adjustment. This prediction follows the logic of PVEST, the theoretical framework used in the present study, as peer mentorship serves as a buffer (protective factor) against deleterious outcomes (risks) for Black collegians.” (p. 2354)

“Each facet of PVEST is aimed at determining what individuals’ outcomes will be based on their perceptions of their experiences. As such, the framework affords researchers a lens through which we can examine how students perceive their experience and are, in turn, affected by them (R. Spencer, 2006; Spencer et al., 1997). A CCA [canonical correlation analysis] was run on a sample of Black

informal mentorship, combined mentorship, or no mentorship.” (p. 2356)

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<https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1234704&site=eds-live>

students who reported having mentors. The synthetic predictor, ‘connectedness,’ consisted of the variables mentorship experiences, belongingness, and impostor feelings. The synthetic criterion, ‘college outcomes,’ consisted | of the variables college adjustment and GPA. Results from the analysis concluded that belongingness was the primary contributor to the synthetic predictor variable, with impostor feelings and mentorship experiences serving as secondary contributors. As such, students who felt more connected to the university tended to have higher belongingness scores and more mentoring experiences, while also endorsing lower impostor feelings.” (pp. 2354-2355)

“This study finds mixed evidence on the relative importance of peer mentoring. One the one hand, neither was peer mentorship related significantly to GPA and nor was GPA significantly predicted by belongingness, impostor feelings, or mentorship experiences. One the other hand, however, students who endorsed having a mentor did also report higher levels of campus connectedness and adjustment to college relative to those who did not. Considering these mixed results, further research is needed to better understand how mentorship influences students’ academic and psychosocial outcomes. Further research should also clarify whether its influences are more pronounced on psychosocial outcomes, relative to academic ones, which is a question that is not clearly answered due to limitations in the present study.” (p. 2355)

“This study also compares the relationship between students’ psychosocial and academic outcomes and various kinds of mentorship (i.e., engaged in informal peer mentorship [informal] or formal/informal combined [combined]) or no peer mentorship [no mentor]). Thus, additional analyses were conducted to test whether mean group differences existed between the groups informal, combined, and no mentor. The results of such analyses revealed that students in both the informal and combined mentorship groups were better adjusted to college and reported stronger belongingness compared with those students in the ‘no mentor’ group. There were no mean differences found between groups for the variables GPA or impostor feelings. Furthermore, while the students with peer mentors significantly differed on the aforementioned variables from those without peer mentors, there were no significant differences found between students in the informal group and combined group. As such, any level of mentorship appears to have additive value for students in terms of their adjustment to college and belongingness.” (p. 2355)

“Interestingly, the results of the analyses revealed that GPA was not significantly predicted by any of the variables in the study. Similarly, while mean differences were revealed in college adjustment, no mean differences were present for GPA among students in either mentor group (i.e., informal mentor, combined mentor, no mentor).” (p. 2355)

“It is noteworthy that in the present study, students engaged in any kind of peer mentorship, whether the combination of formal and informal or informal alone, reported higher levels of belongingness and college adjustment than those without peer mentors. Thus, peer mentorship served as a protective factor against experiencing reduced belongingness and the difficulties that arise when attempting to adjust to college. This research is particularly important, as educators have increasingly employed mentoring programs to enhance the educational experiences of students on college campuses (Campbell & Campbell, 2007).” (p. 2358)

“Another important implication of the present study is that Black students who endorsed having informal mentors did not differ from those who had both formal and informal mentors. It may be that the facets of the mentoring relationship that enhance students’ experiences are the support, encouragement, and understanding that strong relationships tend to bring. As such, a good mentor is likely to provide these supports to students, regardless of whether the mentor is formal or informal. In some cases, informal mentoring has been found to have stronger gains when compared to formal mentoring (Chao et al., 1992; Ragins & Cotton, 1999; Nemanick, 2000). However, this remains a construct that needs to be further analyzed, as educators could have much to learn about the positive supports informal mentors have been shown to offer mentees. Given that informal mentorship is likely to be more ubiquitous than formal mentorship, university administrators may consider how to encourage the presence of strong informal mentor relationships in addition to seeking to improve formal mentoring programs. Researchers and policymakers must continue to understand the need for high-quality mentoring, examine the ways to improve mentorship quality, and seek to support the advantageous impact of strong mentoring relationship on students’ psychosocial and academic experiences.” (p. 2358)

“Finally, our findings suggest that perceptions about mentoring experiences are likely to be particularly important for Black students attending PWIs. This reality accentuates the importance of mentees’ perceptions about their mentoring experiences and as universities continue to employ mentoring as an intervention for college students, they must be aware of and responsive to these perceptions. The present study finds suggestive evidence that mentees’ perceptions about their mentoring experiences are important. To the extent that mentoring experiences are consistently positive, reductions to disparities across psychosocial and academic domains will ensue and barriers faced by Black students that influence such gaps may be ameliorated.” (p. 2358)



	<p>“Black college students attending PWIs continue to be an underresearched group. To better understand the effects of policies and institutional practices that target these students’ academic and psychosocial outcomes, more research is needed. For instance, there may be school-level moderating effects that accentuate steps colleges can take to redress disparities in student outcomes. These may be inclusive of, but not limited to, mentoring, as students likely need other supports to ensure high academic performance. While this study provides mixed evidence that mentoring influences a number of important outcomes for students, further research on sample of Black collegians can underscore other viable strategies that promote positive academic achievement and appropriate psychosocial development.” (p. 2359)</p>
<p><b>Citation</b> Haqquee, Z., Goff, L., Knorr, K., &amp; Gill, M. B. (2020). The impact of program structure and goal setting on mentors’ perceptions of peer mentorship in academia. <i>Canadian Journal of Higher Education</i>, 50(2), 24–38.</p> <p><b>Abstract</b> Many peer mentorship programs in academia train senior students to guide groups of incoming students through the rigors of postsecondary education. The mentorship program's structure can influence how mentors develop from this experience. Here, we compare how two different peer mentorship programs have shaped mentors' experiences and development. The curricular peer mentorship program was offered to mentors and mentees as credited academic courses. The non-curricular program was offered as a voluntary student union service to students and peer mentors. Both groups of peer mentors shared similar</p>	<p><b>Conclusions</b> “In this study, we compared the peer mentors’ experiences between two different mentorship programs offered at McMaster University, a medium-sized (approximately 28,000 full-time undergraduate students, 87% of which are domestic), research-intensive institution in Hamilton, ON, Canada. McMaster has been implementing localized peer mentorship programs within its faculties for at least 20 years. A centralized pan-university mentorship program was launched in 2014. One peer mentorship program that we studied was offered within the Faculty of Science as a credit-based elective that upper-year Science students could take as part of their curriculum [The Peer Mentoring in Science Program], while the second peer mentorship program was offered as a pan-university service through the undergraduate student union [The Spark Transition and Mentorship Program]. The mentors from these two groups will be referred to as curricular peer mentors (CMs) and non-curricular peer mentors (NCMs), respectively.” (p. 26)</p> <p>“A survey research design was selected to gather information on the experiences of the peer mentors in the two mentorship programs (Jann &amp; Hinz, 2016; Neuman, 2000). The survey consisted of 19 questions, including both Likert-style and short answer questions regarding mentors’ perceptions of their mentorship experiences, which included thoughts on their peer mentorship program, their mentor-led sessions, interactions with mentees, the impact of goal setting on their experiences, the skills that they gained through the process, and the skills that they fostered in their mentees.” (p. 28)</p> <p>“Most CMs (17/21; 81%) stated that their mentorship program met or exceeded their expectations. The opportunity for direct student interaction and the mentees’ receptiveness to their peer mentors’ advice were cited as invaluable experiences by several peer mentors in the course. Regular self-reflection of mentoring abilities and the opportunity to develop one’s leadership and communication skills were also greatly valued in this peer mentorship course.” (p. 29)</p>

benefits, with curricular peer mentors (CMs) greatly valuing student interaction, and non-curricular peer mentors (NCMs) greatly valuing leadership development. Lack of autonomy and lack of mentee commitment were cited as the biggest concerns for CMs and NCMs, respectively. Both groups valued goal setting in shaping their mentorship development, but CMs raised concerns about its overemphasis. Implications for optimal structuring of academic mentorship programs are discussed.

### Limitations

“It should be noted that our data collection tool, the online survey, could not be reliably validated as we had created it ourselves to address our specific research questions. The nature of our data collection method, via email invitation, also introduces a self-selection bias, as peer mentors who were most vocal or enthusiastic about their experiences are the ones most likely to be responding to the survey.” (p. 35)

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“Some CMs (4/21; 19%) stated that the peer mentorship program did not meet their expectations. These mentors did not believe that the class had a positive influence on their mentorship experience, stating that few concepts learned from class were transferrable[sic] to mentoring in tutorial-led sessions.” (p. 29)

“When asked how much peer mentors believed they gained from their mentorship experience compared to what they expected, all nine NCMs stated that the Spark peer mentorship program either met or exceeded their expectations. There were no explicit concerns stated from any of the respondents, but some elaborated that their expectations for their program were initially high, and that these expectations were met by the end of the program. Some NCMs stated that the program was a great opportunity to participate in a leadership initiative, and that Spark had pushed them to become more engaged to and develop quick friendships within the McMaster community.” (p. 29)

“These initial results indicate that both peer mentorship programs have satisfied the expectations of most of their peer mentorship students. It is also apparent that CMs were more open to voicing their concerns for progress evaluation than were NCMs. This is a reasonable expectation when considering that CMs’ evaluations would affect their university grade point average, whereas NCMs’ progress evaluation would not. We also begin to see that | CMs’ responses appear to focus on the development of their mentorship traits and abilities, whereas NCMs’ responses focus more on the development of leadership traits and personal connections.” (pp. 29-30)

“When asked what peer mentors most appreciated about their mentorship experience, most CMs cited enjoyment in student interaction and building relationships with their mentees. Having a sense of responsibility and leadership for their mentees and receiving positive feedback from them made CMs feel appreciated during tutorial sessions...The chance to connect with these students and have a meaningful and positive impact on their education left CMs feeling rewarded for their efforts. CMs’ strong appreciation for student interaction may relate to why CMs also appreciated the opportunity to plan and lead their own tutorial sessions. Running their own tutorials helped CMs develop confidence in their public speaking skills and gave them insight on teaching in a classroom setting. Furthermore, sharing past experiences during discussions allowed CMs to connect with their mentees at a more personal level. These engaging conversations were frequently cited as being the highlight of most CMs mentorship experience.” (p. 30)

“NCMs enjoyed some of the same benefits from their mentorship experience as CMs, such as building relations with other students. Interacting with junior students created a sense of community between junior students and their NCMs, who enjoyed observing their mentees’ growth...The most cited benefit among NCMs was the development of leadership skills. Most NCMs surveyed believed that the Spark program helped them develop confidence in their leadership skills.” (p. 30)

“This indicates that peer mentors may experience similar benefits in mentorship, regardless of program structure. The prioritization of leadership development over other benefits for NCMs is expected, as NCMs had many opportunities for structuring and leading their own mentor-led sessions. NCMs also cited “creative freedom” as one of the benefits gained from their peer mentorship program (see Table 1). While CMs had fewer opportunities than NCMs to design and lead their own mentor-led sessions, they did state that the most meaningful interactions with their mentees occurred during their mentor-led sessions, where mentors had at least some opportunity to plan and lead a few of their own tutorial sessions. Through engaging conversations, CMs shared past experiences from their postsecondary education with their mentees, allowing for a more personal connection to be formed between mentor and mentee. The differences in how CMs and NCMs valued their respective benefits could be attributed to the fact that the CMs had fewer opportunities to design and lead their own relative to NCMs. NCMs may have come to value a consistently developing leadership skillset because they were given more opportunity to do so, whereas CMs may have come to value the importance of student interaction more so than leadership development because they had fewer leadership opportunities to experience.” (p. 31)

“As we saw when comparing the benefits between mentorship groups, a disparity in leadership opportunities became apparent when comparing the challenges faced between these groups, as only CMs cited lack of autonomy and leadership as a challenge in mentorship. However, both groups struggled in engaging with mentees, with CMs citing lack of student interest in tutorial, and NCMs citing lack of student commitment to sessions, resulting in low turnouts. For CMs, underwhelming student engagement appeared to stem primarily from overly-structured MRI [mini-research investigations] sessions. For NCMs, a lack of student commitment may be an inherent drawback to working in a voluntary program, where a lack of commitment does not lead to any direct consequences. In contrast, a lack of mentee | participation from a course-structured mentorship program could consequently affect the mentees’ grades.” (pp. 32-33)

“These challenges show that while both groups were displeased with the lack of opportunity to engage with mentees, the lack of engagement was for different reasons, likely tied to how each peer mentor

perceived their role in mentorship. From their responses, NCMs demonstrate a strong perceived sense of responsibility in mentorship, which then leads to a greater sense of grief when their mentees do not commit. This strong sense of responsibility in leadership is supported by the fact that some NCMs cited team dynamics as one of their challenges to peer mentorship, indicating that NCMs struggle to adjust their personal leadership style when it contrasts with that of their partner. CMs, in contrast, did not have as many opportunities as NCMs to lead their own tutorials. They attributed the lack of engagement from their mentees to the MRI content, over which they did not have control. Thus, NCMs cited struggles in engagement with mentees due to over-expectations of both themselves and their mentees, while CMs cited the same struggle, but from MRI sessions minimizing the chance to personalize their tutorials and have meaningful interactions with their mentees.” (p. 33)

“Sixteen out of twenty-three (69.6%) CMs rated the goal setting as a helpful activity in their mentorship development 6/23 (26.1%) felt goal setting helped significantly and 10/23 (43.5%) felt it was somewhat helpful). When elaborating on their rating, these CMs stated that creating goals gave them the chance to fine-tune the direction of their mentorship and keep track of their progress. They believed that goal setting helped them self-reflect and plan ways to improve their mentoring strategy. It also motivated them to accomplish their duties during tutorial sessions, pushing their overall efforts in peer mentorship.” (p. 33)

“Not all comments were entirely positive. Even though these CMs rated the goal-setting activities as somewhat helpful, a few (4/10; 40%) elaborated on their rating by saying that the goal setting activity felt restrictive...Some CMs stated that goal setting neither helped nor hindered (4/23;17.4%), or even somewhat hindered (3/23; 13.0%) their mentorship experience. When elaborating on their rating, these CMs indicated that compulsory goal setting restricted their freedom. They stated that they felt overly pressured to focus on the goals they set at the beginning of the semester or that goal setting had little impact on their mentorship experience.” (p. 33)

“While NCMs were not required to set goals as part of the Spark program, when asked about goal setting, some NCMs did state and elaborate on goals they set throughout their mentorship experience (see Table 3). Five of the nine NCMs surveyed elaborated on their impressions of goal setting in peer mentorship, with three stating that it somewhat helped their experience, and two stating that it helped significantly (on a 5-point Likert scale, from hindered significantly to helped significantly). NCMs commented on how goal setting encouraged them to reflect over their work to target what they would like to improve upon in the future.” (p. 34)

“While few CMs considered goal setting to be a hindrance, most believed that it at least somewhat helped shape their mentorship experience, with about a quarter of them praising it as a critical component in planning and tracking their progress, as well as motivating their overall efforts in peer mentorship. However, even amongst peer mentors that praised goal setting, some expressed frustration with its implementation. These frustrations reflect some of the challenges CMs cited in earlier survey questions. In the same way that MRIs limited CMs’ opportunities to engage with their mentees, some CMs felt that goal setting restricted their ability to be flexible and spontaneous in peer mentorship. CMs thus appeared to desire more freedom in their mentorship experience.” (p. 34)

“Although NCMs were given no specific instructions or encouragement for setting goals, some NCMs did set | their own goals and commented that these goals were at least somewhat helpful in guiding their mentorship experience. The fact that these NCMs set goals on their own accord, without being mandated to do so by their program, indicates that goal setting can be a self-motivated skill for some mentors. Indeed, the most effective leaders in a workplace tend to be ambitious and display a drive for personal achievement (Kirkpatrick & Locke, 1991)... We learned, however, that allowing mentors flexibility to refine their goals throughout their mentorship role is an important aspect to encourage the mentors to gain the most from their goal-setting experience.” (pp. 34-35)

“To the best of our knowledge, this is the first study comparing benefits and challenges in peer mentorship for mentors in the context of program structure and active goal setting at a postsecondary institution. Overall impressions of peer mentorship programs were positive for each respective group, with similar benefits of student interaction and development of leadership skills cited as the reasons that mentors’ expectations of their respective programs were met. The only concerns came from CMs, where those whose expectations were not met stated that the course content was not influential in their mentorship experience. Concerns raised by CMs involved suggestions to update or refine the course content and assessment methods, as well as increase the number of leadership opportunities available to them.” (p. 35)

“Based on the results of this research, and other data collected through our survey, we suggest the following modifications to peer mentorship programs. For the curricular peer mentorship program, we suggest including more opportunities to develop mentor-led sessions and greater flexibility in adjusting and refining goals throughout the semester. For the non-curricular peer mentorship program, we suggest implementing earlier and more frequent team-building activities to better connect Team Leaders with each other. For both groups, it would be beneficial to develop methods and activities to better engage mentees that would encourage their ongoing involvement in their programs. To tackle

	<p>this common struggle of dealing with uninterested or uncommitted mentees, course-structured programs may benefit from incorporating more meaningful individual interactions between mentors and mentees, and non-curricular or voluntary peer mentorship programs may benefit from familiarizing mentors and mentees to the level of commitment expected from each of them to ensure a fulfilling mentorship experience.</p> <p>Finally, our findings on goal setting in peer mentorship show that mentors who value active goal setting may set goals themselves, regardless of whether a mentorship program encourages them to or not. For institutions seeking to incorporate active goal setting in their peer mentorship program, encouraging and educating mentors on the benefits of active goal setting may be more favourable than mandating its use. Additionally, allowing goals to evolve and change over the course of a mentorship experience may help reduce frustration among peer mentors that are unsure of exactly what they strive to achieve, or for those that change their mind about it after they have begun mentoring.” (p. 36)</p>
<p><b>Citation</b> Kees, M., Risk, B., Meadowbrooke, C., Nellett, T., &amp; Spinner, J. (2017). Peer Advisors for Veteran Education (PAVE): Implementing a sustainable peer support program for student veterans on college campuses. <i>Metropolitan Universities</i>, 28(3), 30–49. <a href="http://doi.org/10.18060/21541">http://doi.org/10.18060/21541</a></p> <p><b>Abstract</b> 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</p>	<p><b>Conclusions</b> “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.” (p. 32)</p> <p>“The PAVE program model focuses on three pillars: outreach, support, and resource linkage.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>

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.

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- 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.” (pp. 32-33)

“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.” (pp. 33-34)

“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.” (p. 34)

“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.” (p. 35)

“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.” (p. 37)

“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.” (p. 38)

“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. “ (p. 38)

“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) the commitment[sic] 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).” (p. 39)

“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.” (p. 40)

“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.” (p. 41)

“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.” (p. 42)

“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

	<p>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.</p> <p>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.” (p. 42)</p> <p>“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.” (p. 44)</p>
<p><b>Citation</b> Kring, M. (2017). Supporting college students through peer mentoring: Serving immigrant students. <i>Metropolitan Universities</i>, 28(3), 102–110.</p> <p><b>Abstract</b> 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</p>	<p><b>Conclusions</b> “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.” (pp. 103-104)</p> <p>“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. The 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.</p>

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.

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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.” (p. 105)

“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.” (p. 105)

“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.” (pp. 105-106)

“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

	<p>support for which they are not trained, or services that which could be considered an inappropriate level of work to ask from a paraprofessional.</p> <p>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.” (p. 106)</p> <p>“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.” (p. 107)</p> <p>“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.” (p. 108)</p>
<p><b>Citation</b></p>	<p><b>Conclusions</b></p>

Lim, J. H., MacLeod, B. P., Tkacik, P. T., & Dika, S. L. (2017). Peer mentoring in engineering: (Un)shared experience of undergraduate peer mentors and mentees. *Mentoring & Tutoring: Partnership in Learning*, 25(4), 395–416.  
<https://doi.org/10.1080/13611267.2017.1403628>

### Abstract

In this qualitative study, we explored the experiences of 26 engineering student mentors and mentees in a peer mentoring program. We found that mentors and mentees exploited the mentoring program’s fluid structure and situated social relationships to enact a specific type of academic/professional goal and identity conducive to their entry to one of two communities of practice, the on-campus engineering program community and the community of professional engineers. The mentoring program functioned as a social space in which identities of these students converged and diverged, creating a subtle tension and self-reflection in relation to the two different communities of practice that they pursued.

### Limitations

“In addition to small sample size, the unique institutional and programmatic context of this study should be noted as one of the important limitations of the

“In this qualitative study, we explored the major characteristics of mentors’ and mentees’ relationships and experiences in the peer mentoring program supporting the first-year transition of engineering freshmen. The main research question under investigation was: ‘What characterizes the relationships and experiences of mentors and mentees in a peer mentoring program?’ In particular, we examined the contexts and nature of interpersonal relationships that emerged in the program and the types of knowledge shared by the program participants. Furthermore, we analyzed a subtle tension between two interrelated, yet different communities of practice of their pursuit: the on-campus engineering program community and the community of professional engineers. By including in-depth interview data from both mentees and mentors, and analyzing the reciprocal nature of their mentoring experience, we intended to illuminate the complex dynamics residing in a formal peer mentoring program for first-year engineering students.” (p. 398)

“This study was based on in-depth interviews with 26 engineering students (14 mentees and 12 mentors) who participated in the mentoring program between Fall 2012 and Spring 2014 at a large southeastern university.” (p. 400)

“The mentoring program was structured as a voluntary, supplemental workshop that freshman engineering students attended for extra credit. Each collaborative learning group was led and facilitated by two peer mentors who had successfully completed the first year in their engineering program. During the mentoring sessions, the peer mentors covered nine key topics (e.g. time management, registration, campus resources) using a given guideline and an informal and open discussion around each topic. The main purpose and overall characteristics of the program reflected major tenets of mentoring initiatives even though solid mentoring initiatives in higher education inevitably include substantial coaching components. Several key characteristics of the program, such as sharing discipline-specific knowledge and identity, relationship-building between peer mentors and mentees and emotional support provided to the mentees, relational reciprocity as observed in both mentors and mentees, and stable, long-term relationships that emerged and lasted in and outside of the program clearly indicated that the program served as a mentoring program.” (p. 401)

“Our qualitative data analysis suggested that there were two interrelated, yet slightly different communities of practice that mentors and mentees pursued. The data also indicated that each group of students exploited the mentoring program’s fluid structure and situated social relationships to enact specific types of academic/professional goals and identity that were conducive to their entry to | the community of practice. Mentees strived to be part of the community of the engineering program on campus as competent engineering students. Mentors who were already integrated in the campus

study. The institutional milieu and the social and cultural environment of their engineering program fundamentally shaped participating mentors' and mentees' experiences. Therefore, the results of this study should be understood by considering the institutional context of the university and its engineering program, a rapidly growing Predominantly White Institution public urban research university located in the Southeast. The type and scope of data collected and analyzed also yielded another limitation. Our study was primarily based on interviews with student mentors and mentees at the end of the mentoring program. Even though the research team conducted interviews with two program staff members and visited several mentoring sessions during the course of study, the scope of data and method triangulation were rather limited (Crisp & Cruz, 2009)." (p. 411)

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<https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eft&AN=126729726&site=eds-live>

engineering community envisioned mentorship as an opportunity to develop skills and dispositions essential to their successful advancement to another community of practice – the community of professional engineers. The mentoring program functioned as a social space in which the identities of two groups of students converged and diverged creating a flow of informal knowledge and self-reflection in relation to the two different communities of practice." (pp. 401-402)

"The mentoring program was characterized by its fluid and open structure. A purposeful structure of activities and learning objectives were embedded in the program; however, mentors and mentees had some flexibility with the topics assigned to a specific session while given space for friendly peer interactions among themselves. Mentors were allowed to lead the sessions that suited their personal style and the needs of the students at the moment, which gave them a sense of autonomy and also fostered a friendly environment. Mentees saw this structure as an opportunity to ask questions and to get advice from mentors and other mentees." (p. 402)

"The friendly environment, open and flexible structure, and mentors' altruistic motivation helped set the stage for positive interactions between mentors and mentees and allowed them to develop mutually supportive relationships. Almost all mentors (n = 11: 91%) and mentees (n = 12: 85%) reported a strong sense of connection and social bond with each other regardless of their initial motivation to participate. Sharing the hard and murky first-year college experience and being a student in the same demanding discipline created natural bonds between them. The absence of faculty or staff intervention during the workshop allowed mentors and mentees to feel comfortable expressing their opinions, experiences, and concerns.

Noteworthy was that mentors (n = 9: 75%) eagerly shared their personal experience and current struggles in their advanced classes. Through this reciprocal sharing, mentees gained awareness that their mentors, though successful members of the engineering program community, were still facing challenges yet were able to persevere in the program. Mentors shared their personal struggles to show mentees how they had navigated the past and to help them avoid making similar mistakes. Mentees found these interactions to be memorable and inspirational. The mutual sharing of struggles facilitated the trust and connection between the two groups." (p. 403)

"Another important aspect of the mentoring program experience was the natural flow of informal knowledge that was essential to freshmen's survival through challenging courses and a demanding workload. Mentees, new to the university and to the engineering program, experienced anxiety, confusion, and stress about | their courses, their professors, and the university system as a whole. The structure of academia has often led to students having a lack of power or control over their education

(Becker et al., 1968). Mentees were unsure of the expectations and requirements to be successful 'college' students, even less about 'the nuances and the quirkiness with how the [engineering] department is run' (a quote from Neil, mentee). The mentoring program provided them with a way to gain some sense of power and control in the engineering program because they were able to gain insiders' knowledge from their mentors." (pp. 403-404)

"The ability to gain that insiders' knowledge allowed mentees to feel more in control of their academic experiences and GPA. They felt better prepared and confident knowing what to expect and what was required of them in specific courses and/or | with certain instructors, which helped them plan ahead and stay more proactive in their program." (pp. 404-405)

"Based on its mission, the primary beneficiaries of the mentoring program were freshman mentees who received social and academic support from their upperclassman mentors. However, mentors also gained new insights and professional skills through their role as mentors. In some sense, mentors' experiences were more complex than those of mentees. Seven mentors reported that they initially considered their role as more traditional, authoritative leaders of the mentoring program. Assuming that they were responsible for their mentees' successful transition, mentors experienced uneasiness and anxiety in the beginning of the program. They were also concerned about how their mentees would perceive them and lacked confidence in their abilities to engage with them...However, mentors' views of their own roles and how to interact with their mentees changed over the course of the program. As they became more comfortable in their role, the mentors often learned to be more egalitarian leaders in the group and were not as upset if they were unable to help all mentees at one time. Serving as a facilitator for the entire group, rather than a student participant, provided all mentors with an opportunity to attentively observe how other people think and behave as well to reflect upon their own initial thoughts and responses. As a result, mentors gained communication and interpersonal skills that they would not have normally learned in their traditional student role." (p. 405)

"Given the lack of understanding of peer mentoring relationships and the mentoring process, this study explored the major characteristics of mentors and mentees' experiences in a formal peer mentoring program for undergraduate engineering students. Our findings suggested that peer mentoring programs could be used as a way to integrate freshman students into the engineering program community by maintaining a subtle balance of structure and flexibility and therefore fostering positive interpersonal relationships within the program. Furthermore, in this study we examined the interrelated, yet slightly different communities of practice that mentors and mentees



pursued, with mentors having more complex motivations and experiences within their roles. Rather than focusing on the simplistic and ought-to-be positive outcome of peer mentoring for mentees, we highlighted how the process of peer mentoring could integrate and separate mentors and mentees based on their shared and unshared academic or professional goals that reflected on different communities of practice.” (p. 408)

“One unique finding of this study was mentors’ more complex and multi-faceted motivations and experiences in the mentoring program. Scholars suggested that mentors and mentees had different experiences and expectations in mentoring (Douglass et al., 2013; Holt & Berwise, 2012); however, how these different motivations and experiences unfolded in the mentoring process and how they shaped the mentors’ personal and professional growth were not closely examined. On one hand, mentors had a strong desire to help mentees transition into the program successfully, reflecting upon their own difficult experiences as freshmen. This first motivation led mentors to develop strong interpersonal bonds and to create an open, egalitarian environment for mutual sharing and support. At the same time, mentors wanted to use the mentoring program as an opportunity to pursue their own professional development goals. Through their own experiences in the engineering program, they recognized the need to develop effective interpersonal and leadership skills, which could be accomplished by serving as mentors. This finding was not limited to male participants but also substantiated in three out of four female mentors in the study. The mentors’ initial expectations were well-grounded since all mentors in this study confirmed that they had gained significant professional and personal growth through mentorship experience. While working with students with varied needs and motivation, mentors were forced to reflect on their methods of interaction and to adjust their initial perspective and strategies, and gradually, they reached the conclusion that their role was to help mentees take responsibility for their own learning (Bunting et al., 2012). These experiences, at times uneasy and stressful, helped mentors gain professional insight and interpersonal skills, which were also another important and more ubiquitous reason for their original decision to serve as mentors. The existing literature confirmed that this positive effect of peer mentoring had the potential to help mentors become reflective, collaborative, and active in their own learning experiences (Bunting et al., 2012; Holt & Berwise, 2012).” (pp. 408-409)

“The nature of mentors’ major dilemma – working with struggling and/or unmotivated mentees – and their decisions to address the dilemma, elucidated the complex dynamics across the mentors’ initial motivations, the community of practices they pursued, and their decision to share (or not) professional goals and identity. It was evident that mentors had their own professional developmental goals and desired community of practices, which influenced what they viewed as important in their interaction/

communication with mentees. Some mentors chose to encourage struggling freshmen in order to instill confidence and a sense of community within the mentoring program. Other mentors found it more desirable to offer authentic advice regarding the program's demand and profession's selectivity so that the mentees could evaluate the possibility of their successful entry to the professional engineering community. This finding is noteworthy considering the larger cultural context of the engineering discipline that promotes its elite academic status and selectivity by excluding those deemed to be incapable and unqualified in the initial admission process (Slaton, 2010) as well as through first year weed-out courses (Reyes, 2011)." (p. 409)

"One of our findings, mentors' sharing insider knowledge with mentees, also illuminated an important cultural aspect of higher education, especially those disciplines known to be rigorous and demanding. Becker and his colleagues' wellknown work (1968) explained that college students had little control over the academic side of college life, and they were entirely vulnerable to faculty's academic prerogative backed by the university's GPA system. As a result, students who desired to earn an acceptable grade and to maintain a decent GPA would naturally seek information not only about the formal requirements of their courses but also informal and unspoken assumptions, expectations, and personal tastes and prejudices held by their professors (Becker et al., 1968). Furthermore, professors had | very little idea regarding their students' overall workload each semester due to the lack of coordination and communication by varying departments on campus. It was, at the end, totally up to each engineering student to find a way to deal with an excessive workload. In fact, some of our mentor participants confessed that it was difficult for them to find time to properly eat or to have adequate sleep with all the tasks on their to-do list, including multiple class projects, exams/quizzes, mentoring, and additional responsibilities as an officer for an engineering student organization." (pp. 409-410)

"Freshman engineering students were not in a better place. While making a major transition in their lifestyle and facing some challenges, freshman mentees also took three or four weed out courses (e.g. calculus, chemistry, physics, and introductory engineering). Knowing their fate in regards to falling below a certain GPA set by the program, obtaining insiders' knowledge was an inevitable, possibly essential, strategy that first-year engineering students needed to gain as quickly as possible. This was necessary in order for them to have some control over the rigorous academic demand that in some cases was practically unmanageable. Furthermore, if we apply Lave and Wenger's situated learning theory (1991), which highlighted the social and cultural integration as an essential part of learning, the phenomenon of gaining insiders' knowledge could be viewed as an essential step for first-year students adjusting to the existing cultural practices of the engineering program community on campus. As epitomized in one of the mentee's narratives, it is an act of learning 'how the college of

	<p>engineering is run' and adapting to a new cultural environment by understanding and meeting the expectations required of newly initiated members in the community of practice.” (p. 410)</p> <p>“Last and most important, we want to highlight the subtle, yet significant differences between the two interrelated communities of practice envisioned and pursued by engineering student mentors and mentees. The tension between the two communities of practice was translated into each mentor’s decision – either intentional or unconscious – to create a converging or diverging identity with their mentees of certain characteristics. Therefore, it would be necessary for support programs that involve different groups of students (e.g. lower and upper classmen) to acknowledge that involved students may have varied developmental needs and professional goals, and accommodate those differences in a proactive and constructive way.” (p. 410)</p>
<p><b>Citation</b>  Mattanah, J. F., Ayers, J. F., Brand, B. L., Brooks, L. J., Quimby, J. L., &amp; McNary, S. W. (2010). A social support intervention to ease the college transition: Exploring main effects and moderators. <i>Journal of College Student Development</i>, 51(1), 93–108.  <a href="https://doi.org/10.1353/csd.0.0116">https://doi.org/10.1353/csd.0.0116</a></p> <p><b>Abstract</b>  This study examined effects of a peer-led social support group intervention on college adjustment. Ninety first-year students, randomly assigned to participate in the intervention, reported higher levels of perceived social support and reduced loneliness when compared to controls (n = 94), after accounting for preintervention levels on these variables. Effects were not moderated by precollege adjustment concerns or gender. Results of this study suggest that a cost-effective peer-led</p>	<p><b>Conclusions</b>  “Several studies, conducted in the 1980s and 1990s, demonstrated that peer-led social support programs administered during the first weeks of college enhance students’ perceptions of social support and overall adjustment and decrease loneliness (Lamothe et al., 1995; Oppenheimer, 1984; Pancer, Pratt, Hunsberger, Alisat, &amp; Berkeley, 2007; Pratt et al., 2000). These researchers share a theoretical perspective that social support buffers stressful life experiences (Alloway &amp; Bebbington, 1987) and that the transition to college disrupts established social networks (Shaver, Furman, &amp; Buhrmester, 1985). Peer led support groups allow students to establish new social ties with fellow students who are facing the same novel social environment, increased academic demands, and greater separation and independence from parents and high school support systems. In an early study, Oppenheimer tested the effectiveness of small group discussions in facilitating adjustment to a small, selective U.S. college. The intervention involved weekly, hour-long discussion groups from mid-October through November during the first semester of college. Oppenheimer found that vulnerable students who scored high on a self-report measure of concern about social life at college showed increased social life satisfaction, increased self-esteem, and decreased social anxiety after the intervention, whereas nonvulnerable students showed no significant difference on these variables. These findings did not emerge as statistically significant until 5 months after the conclusion of the intervention, suggesting a ‘sleeper effect’ (Oppenheimer). Lamothe et al. (1995) implemented a similar program at a small Canadian university with a sample of 27 freshmen. Because the first few weeks are particularly crucial for students’ adjustment, Lamothe et al. began their intervention in the first week of college. Three intervention groups of nine students met for six weekly semi-structured discussions of 90 minutes; these groups were facilitated by senior undergraduate and graduate students. Results indicated that the intervention participants showed</p>

intervention program can positively affect students' social adjustment to university at a large, 4-year institution.

### Limitations

"...Although our participation rate may not be unusually low, the generalizability of our findings is limited to students willing to participate in social support groups. Such students may be more anxious or differ in some other way from students who choose not to be in a study designed to improve their transition to college. Another limitation of the study is that we did not systematically assess fidelity to treatment so we do not know that the groups were implemented consistently." (p. 106)

### Article Link

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significantly better college adjustment and reported higher levels of perceived social support than did control participants.

Pratt et al. (2000) replicated the intervention with a larger sample (N = 50) at the same Canadian university and added measures of loneliness and depression to broaden the examination of intervention effects. Loneliness is particularly important to assess with first-year students because greater loneliness is associated with early dropout from college (Anderson, 1987). Results from Pratt et al.'s study found that, compared to the control group, the male and female students in the intervention group showed better overall adjustment to college, and female participants in the intervention | group showed increased perceptions of social support and less depression than did control participants." (pp. 94-95)

"We modified Pratt et al.'s (2000) intervention to fit the parameters of a large, metropolitan university. We hypothesized that the modified social support intervention would lead to enhanced college adjustment, greater perceived social support, and less loneliness in a socioeconomically and ethnically diverse, metropolitan sample. We examined further whether gender and preadjustment concerns moderated the effects of the intervention." (p. 96)

"Participants in this study were all traditional aged, first-time (no transfers) freshmen at a suburban university categorized by the Carnegie Foundation for the Advancement of Teaching (in its Size and Setting category; n.d.) as a 'large, four-year, primarily non-residential' institution (L4/NR)." (p. 96)

"Eighty-eight first-year college students participated in 9-week social support groups during their first year in college. Each participant was randomly assigned to 1 of 11 groups, 5 conducted during the first year of data collection and 6 during the second year. Each group included between 6 and 10 students and met for eight sessions during the fall semester and one session during the spring semester. Group sessions were semi-structured and based on a training guide developed by the research team that included comprehensive, step-by-step instructions utilized by the group facilitators on a weekly basis....Each session lasted for approximately 90 minutes and was facilitated by two undergraduate clinical psychology honors students who had completed advanced clinical coursework in basic counseling skills, relationship building, and group facilitation and had previous experience in leading groups." (p. 98)

"During each meeting, students discussed a topic related to their college transition, with the exception of the two meetings in which students completed questionnaires and the initial group meeting when students were introduced to the intervention. Topics included (a) creating new social ties; (b)

balancing work, academics, and a social life; (c) peer pressure, values, and college life; (d) residential issues; (e) expectations vs. realities of college life; and (f) examining old social ties. The format of each meeting consisted of a check-in period to review reactions to the group from the previous week, a discussion of the topic selected for that week, and a wrap-up period during which students provided written feedback about their experience in group for that day. Students were offered pizza or other snacks as an incentive to participate. The average attendance rate among group participants was 6.12 sessions (SD = 2.27). There was no difference in participation rates between male and female group members.

Control group members met in small groups on one occasion in the fall semester, when they were provided with information about campus resources and then completed questionnaires. Control and intervention participants completed a comprehensive battery of surveys online at the same three time points of the study: (a) the summer prior to matriculation into university, (b) week 10-11 of the fall semester (November), and (c) week 5 or 6 of the spring semester (March). The online surveys were administered to students via a password protected webpage link. Each student was assigned a unique identification number to ensure that the correct individual was completing his or her own survey. All participants completed their surveys independently at their home or school computer, either after their regularly scheduled meeting, in the case of the intervention participants, or on their own.” (p. 99)

“We found that intervention and control participants did not differ in adjustment scores at the fall assessment point, consistent with past research (Pratt et al., 2000). At the spring assessment point, however, intervention participants were significantly less lonely than were control participants, after controlling for summer levels of loneliness...Additionally, intervention group participants who attended at least three sessions felt significantly more social support in the spring than did control participants, controlling for summer levels of social support.” (p. 103)

“The participants in this study attended a large, metropolitan university with a significant number of commuter, ethnic minority, and socioeconomically diverse students, as opposed to previous studies that investigated social support group interventions with students from small, elite liberal arts colleges (Lamothe et al. 1995; Oppenheimer, 1984; Pratt et al., 2000). Despite the greater social estrangement associated with a large university (Pascarella & Terenzini, 2005), the intervention was effective at enhancing students’ perceptions of social support and decreasing a sense of loneliness. A social support group setting provides students with an opportunity to have their experiences validated. They are interacting with peers who experience the same challenges associated with making the transition to college and they are presented with models (the facilitators) who have successfully negotiated this transition and provide invaluable information about resources on campus (e.g., counseling center,

academic advising, etc.). Peer-led social support programs can enhance current models of the freshmen year transition, which tend to focus on faculty- and staff-facilitated support programs to enhance students' connection to the university and access to campus resources (Barefoot et al., 2005; Upcraft et al., 2005).

We expected that these socially oriented groups would have the strongest impact on the outcome variables related to social functioning. Consistent with Pratt et al. (2000) and Oppenheimer (1984), we found that the effects of the intervention were not significant until the spring semester of the first year of college. Thus, it appears to take several months for students to experience the social benefits of the support groups, suggesting that developing new social networks takes time.” (p. 104)

“We investigated the interactions of the intervention with gender and precollege adjustment concerns. In previous research, this intervention was found to be particularly effective in increasing social support and reducing depression for women during their first year in college; however, 4 years after the intervention was completed, no gender differences were found regarding the effects of the intervention (Pancer et al., 2007; Pratt et al., 2000). We found no interactive effects | of gender during the first year of the college transition, supporting the idea that a peer-led social-support based intervention is equally beneficial for young women and men making the transition to college.” (pp. 104-105)

“The students in our study who expressed greater concerns about transitioning to college reported less perceived social support and greater loneliness in the spring, after controlling for summer loneliness and social support. This is consistent with research indicating that students with anxious and fearful expectations have more difficulty transitioning to college (Brooks, 2005; Jackson et al., 2000). Although some research has found that group interventions benefited only students who were vulnerable prior to the intervention (e.g., Oppenheimer, 1984), our intervention worked equally for students with greater and fewer preadjustment concerns. Thus, we see our intervention as a primary prevention intervention, rather than a tertiary intervention (Pratt et al., 2000). This speaks to the wide reaching benefits of this intervention for first-year students, regardless of gender or level of adjustment concerns. As an intervention that benefited vulnerable as well as less vulnerable students, it is consistent with the goals of counseling psychologists, who focus on enhancing individuals' strengths to increase their adaptation rather than focusing exclusively on students who are impaired (Gelso & Fretz, 2001).” (p. 105)

“Several positive benefits emerged from participation in this 9-week social support intervention. We believe that the peer-led social support groups studied in this research may provide a model for

	<p>effective ways of enhancing adjustment for first year college students and thus may provide useful guidance for college counselors and educators working with this population. First, these groups were ongoing throughout the fall semester rather than focused exclusively on orientation week, as is often done in traditional transition-to-college programs. Students benefited from developing deeper, more meaningful connections with a small group of students, and this allowed them to comfortably open up with each other to share experiences of transitioning to college. Second, the use of peer facilitators (fellow undergraduate students) made the experience that much more meaningful to the students, providing them models of successful college ‘transitioners’ who were able to share their experiences and approach the new students as fellow journeyers rather than ‘experts’ or ‘professionals.’ Finally, the ongoing, loosely structured nature of the groups allowed the students to delve into some serious and complex issues facing first-year students, including tolerance of diversity and development of a personal value system, topics which tend to be overlooked in orientation week programs.” (p. 105)</p> <p>“In conclusion, our findings suggest that a cost effective social support intervention benefits a broad range of college students, including males and those with greater preadjustment concerns. In particular, this study found that the intervention reduced loneliness and raised perceptions of social support by the end of the first year of college. Given the enduring benefit of feeling more socially connected in college, this intervention may have important implications for long-term college adjustment and, perhaps, for college retention and graduation rates (Pancer et al., 2007).” (p. 106)</p>
<p><b>Citation</b>  Moschetti, R. V., Plunkett, S. W., Efrat, R., &amp; Yomtov, D. (2018). Peer mentoring as social capital for Latina/o college students at a Hispanic-Serving Institution. <i>Journal of Hispanic Higher Education</i>, 17(4), 375–392.  <a href="http://dx.doi.org/10.1177/1538192717702949">http://dx.doi.org/10.1177/1538192717702949</a></p> <p><b>Abstract</b>  An evaluation was conducted on a university peer mentoring program for Latina/o college students (mostly</p>	<p><b>Conclusions</b>  “...A peer mentoring program was implemented at a Hispanic-Serving Institution (HSI) in Southern California to increase students’ social capital and feelings of university connectedness, with the goal of increasing their retention and graduation rates. This study only presents the results for the Latina/o students.” (p. 377)</p> <p>“Recognizing the value of peer mentoring as a form of social capital, a peer mentoring program for freshmen was started at an HSI comprehensive university in Southern California. In the first year of the peer mentoring program, it was piloted in two classes in two departments. In subsequent years, the peer mentoring program was instituted in UNIV 100 (i.e., an orientation course that prepares students for their college career). Freshmen can choose to enroll in UNIV 100. Some UNIV 100 sections were part of the peer mentoring program, which placed students in cohorts of 20 to 25 during their first semester. Mentored cohorts grouped students by major or grouped undeclared students together. Although the goal of the grant was to increase retention and graduation rates of Latina/os, all students in classes with peer mentors were given equal services by the assigned peer mentors.</p>

freshmen and first generation) at a Hispanic-Serving Institution. Data were collected across 3 years from 458 Latina/o students with mentors and 86 Latina/o students without mentors (Year 3). Quantitative and qualitative data indicated mentees viewed peer mentors as social capital (e.g., emotional and academic support). Mentees reported increased university integration and connection at posttest, significantly greater than nonmentored students.

#### Limitations

“First, the program and data were collected from Latina/o mentees at a 4-year, comprehensive university in Los Angeles, which is designated a HSI. It is possible that Latina/o mentees may respond differently from non-HSI universities, other types of higher education (e.g., community colleges, Research 1 Universities), or states with fewer Latinos.” (p. 387)

#### Article Link

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Mentors were recruited in a campus-wide recruitment effort through fliers delivered to department and college advisement offices and the Educational Opportunity Program (EOP). Some mentors were recruited after completing the program as a mentee. Depending on their major, mentors were matched with a discipline-based cohort (except for the undeclared cohorts). Mentors participated in a summer training (10 hr) and follow-up meetings to meet the needs of the mentees. Some of the training topics included professionalism, confidentiality, student leadership development skills, how to organize group activities, fostering effective communication with mentees, creating good relationships with students with disabilities, goal setting exercises, working with students from diverse populations, utilizing the community of mentors, developing positive coworker relationships, and creating a safe and welcoming environment for undocumented students. Also, mentors were trained to spot warning signs that a mentee was struggling in class (e.g., frequent tardiness or absenteeism). The more experienced mentors were trained and encouraged to help the newer mentors (i.e., tiered mentoring). Mentors were paid hourly, working 6 to 10 hr a week during the semester.” (p. 378)

“There were two peer mentors per cohort, but some highly experienced mentors led their cohort individually. Mentors were expected to attend all UNIV 100 class meetings along with their mentees. Mentors modeled proper behaviors for mentees during the UNIV 100 class (e.g., being on time, participating in class discussions). Furthermore, mentors were expected to cofacilitate in-class sessions on strategies for academic success. Mentors engaged mentees in one-on-one meetings to become acquainted with each other and maintained one-on-one contact with them throughout the semester (e.g., phone calls and emails). The mentors regularly met with the UNIV 100 faculty to plan and coordinate classroom activities. The mentors also familiarized their mentees with at least one academic resource on campus (e.g., library, career center, or tutoring center). In addition, the mentors arranged for groups of mentees to attend a campus activity (e.g., athletic event, play). If the mentors identified students who were struggling, the mentors would intervene to help the student improve.” (p. 379)

“...The study was conducted across 3 years with four samples of Latina/o student mentees. Across all 3 years, undergraduate students were used as peer mentors. However, in Year 2 of the program, graduate student peer mentors were also used in some sections of the UNIV 100 classes. The data for those mentees were examined separately from data from undergraduate student peer mentors. In all 3 years, participants were given a survey at posttest to get feedback about the peer mentor and the peer mentor program.” (pp. 379)



“In Year 1 of the program, the peer mentoring program was offered in two classes in two departments which included 60 Latina/o mentees. Paper surveys were given at the end of the semester during the class. In Year 2 of the program for Group 1, pretest and posttest paper surveys were collected in the first and last week of UNIV 100 classes from 153 Latina/o students with undergraduate peer mentors. In Year 2 of the program for Group 2 (i.e., graduate student peer mentors), a paper survey was administered at the end of the semester to 100 Latina/o mentees. The mentees were asked to answer questions about how they felt at the beginning of the semester (recall) and currently (i.e., end of the semester). As the surveys were completed during class in Years 1 and 2, no incentive for participating was provided. In Year 3 of the program, pretest and posttest data were collected online (explained below) from 228 Latina/o students (146 with a peer mentor and 82 without a peer mentor)... In Year 3, a pretest–posttest, comparison group design (i.e., quasi-experimental) was used. Of the 52 sections of UNIV 100, 19 sections had peer mentored sections (i.e., treatment group). The remaining sections (i.e., without peer mentors) served as a comparison group, although some sections were excluded from the comparison groups (i.e., honors sections, deaf and hard-of-hearing sections) to make the treatment and comparison groups more similar.” (p. 380)

“The purpose of this study was to examine Latina/o students’ views of a peer mentoring program at a HSI in Southern California. The quantitative and qualitative data indicated the Latina/o mentees (most of whom were freshmen and first-generation college students) viewed their peer mentors as forms of social capital (e.g., emotional and academic support). Also, the results indicated that the Latina/o mentees reported increased integration and connection to the university at the end of the semester, and this increase was significantly greater than a comparison sample of non mentored Latina/o students. The data also indicated the vast majority of the Latina/o mentees viewed their peer mentors positively. Although most mentees had no suggestions for the program and/or mentors, some mentees made some good recommendations worth consideration.” (p. 386)

“As mentioned previously, the Latina/o mentees perceived their peer mentors as social capital (i.e., relationship with another person that provides support and assistance, Stanton-Salazar, 2001). Specifically, the quantitative and qualitative data showed that the mentors were perceived as providing helpful information about the campus and major, academic support, encouragement, and emotional support. The mentors were perceived as caring, respectful, available, and responsive, which is consistent with how peer mentors have been described in the literature (Leidenfrost et al., 2011). Social capital may be especially helpful to first-generation Latino college students as they learn to navigate a new environment, such as the university (Attinasi, 1989; Rios-Aguilar & Del-Amen, 2012). As one first-generation Latino mentee stated, ‘They (peer mentors) allowed us to become familiar

with our new lives at the university and make us a better student.’ The qualitative comments suggested the mentees benefitted from the one-on-one and group interactions with the peer mentors (e.g., ‘I felt as if she was another friend I could count on for whenever I needed her’) and had increased opportunities to be involved in campus activities (e.g., ‘The peer mentors were helpful when asking about resources and events around campus’). The peer mentors also helped introduce the mentees to others on campus, which can increase university integration. As a Latino mentee stated, ‘They (peer mentors) introduced us to university faculty and staff. Also told us we should network and get involved.’ This perception of available social capital may explain (at least partially) why the mentees had increased connection to and integration in the university at the end of the semester, even more so than students without peer mentors. This finding is consistent with research that shows that mentors can enhance social and academic integration (Crisp & Cruz, 2009), ultimately increasing student success and persistence (Astin, 1996; Crisp, 2010; Hughes & Fahy, 2009).” (p. 386)

“Although most Latina/o mentees stated the peer mentors and/or program was good in its current form, some mentees provided valuable feedback for the program coordinators or future mentoring programs. In general, the mentees who made suggestions were interested in having more interactions with the peer mentors in class and outside of class. Also, some mentees stated they would like to have mentors in other classes, or have the current mentors stay with them in subsequent semesters. Thus, the relationship and/or interactions with the peer mentors appeared to be valued by the Latina/o mentees. Program coordinators, faculty teaching the courses with the peer mentors, and the peer mentors could brainstorm ways to increase interactions through more in-class activities or more mentor-coordinated group activities outside of class (e.g., attending university events together). Another recommendation by some mentees was that the peer mentors should be more knowledgeable and give better advice. One recommendation for future programs would be for the peer mentor program to coordinate with the academic advisors in the departments to provide training or reading materials for the mentors. And finally, a few mentees suggested that faculty or mentors should provide more clear expectations regarding the roles of the peer mentors. The peer mentor program coordinator could provide an outline of peer mentor duties and expectations for students that could be put on course syllabi and/or verbally explained to the students.” (p. 387)

“This study was an evaluation of whether a peer mentoring program helped Latina/o students at a comprehensive HSI university in Southern California. The peer mentors | seemed to be a source of social capital as the Latina/o mentees perceived the mentors as providing emotional support, academic support, role modeling, and career help, and also increased their integration and connection to the university. The results of this evaluation were similar to other studies on the value of university

	mentoring programs (see review by Gershenfeld, 2014). Other higher education institutes trying to increase the social capital of Latina/o students should look at the outcomes of this program and other programs when developing and implementing their own programs.” (pp. 387-388)
<p><b>Citation</b> Peregrina-Kretz, D., Seifert, T., Arnold, C., &amp; Burrow, J. (2018). Finding their way in post-secondary education: The power of peers as connectors, coaches, co-constructors and copycats. <i>Higher Education Research and Development</i>, 37(5), 1076–1090. <a href="http://dx.doi.org/10.1080/07294360.2018.1471050">http://dx.doi.org/10.1080/07294360.2018.1471050</a></p> <p><b>Abstract</b> Utilizing an ecological model as a framework, we analyze the role of peers as connectors between an array of microsystems within a student's post-secondary experience. We examine data from 128 student focus group participants from four colleges and eight universities in Ontario, Canada and conclude that peer interactions, both formal and informal, are critical in supporting student success. Respondents articulated that their peers connected them with resources and opportunities on campus, served as coaches and confidantes, co-constructed the environment to meet student needs and served as role models who they wished to copy or emulate.</p> <p><b>Article Link</b></p>	<p><b>Conclusions</b> “In particular, this study explores the role peers play in (a) helping   students navigate through and connect with the post-secondary institutions’ programs and services; (b) assisting students in solving personal and academic challenges as coaches and confidantes; (c) co-constructing learning environments and experiences with student affairs and services staff and (d) role modeling the value of campus engagement and involvement.” (pp. 1076-1077)</p> <p>“This research project included participants from four public colleges and eight public universities across Ontario, Canada. Unlike the broader knowledge creation and dissemination mandate of the universities, the colleges in this sample have a distinct vocational emphasis and are intended to respond to the community’s economic and social development (Jones, 1997). The institutions varied in size, geographic location, research intensiveness, program offerings, residential nature of the campus, diversity of the student community and selectivity. We used a purposeful sampling method in which institutional liaisons invited students involved in formal roles as paraprofessionals (residence dons, orientation leaders) or student government leaders to participate in the data collection on behalf of the research team. Those who confirmed their participation with the primary investigator were asked to share the invitation to participate in the study with their friends and classmates – a form of snowball sampling (Patton, 2002). Our examination focuses exclusively on data collected from 127 student focus group participants and one student who was interviewed individually due to low focus group turnout. Consistent with other college impact research in which women were found to participate at a rate greater than men (Porter &amp; Whitcomb, 2005), more women participated in the focus groups. Students ranged in year of study and represented a host of fields of study (see Table 1).” (p. 1081)</p> <p>“Data collection involved intensive background reading and document reviews of each institution’s mission statement, organizational structure and strategic plans. The research team visited each institution for a full day and conducted 60-minute audio-recorded semi-structured focus groups with students. Each focus group began with participants being asked to share what student success means to them. Then, the facilitator invited participants to depict or draw using paper and pencil how they perceived their institution supports (and/or inhibits) student success. These depictions became the foundation for the discussion (Bagnoli, 2009; Clark-Ibáñez, 2004). The focus group protocol invited</p>

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participants to describe the role of students, staff and faculty in supporting student success at their institution.” (p. 1082)

“Consistently, students noted that peers played four important roles in supporting student success. First, peers connected students with programs and services and assisted each other in navigating what is often a bewildering maze of offices on a post-secondary campus. Second, peers served as confidants and coaches, encouraging students to persist when faced with challenging situations. Third, peers co-constructed the learning environment and were often on the forefront of institutional action to support student needs. Finally, peers ‘modeled the way’ (Kouzes & Posner, 2012, p. 15) regarding getting involved and contributing to campus life; students sought to copy the model their peers presented. Together, we refer to these roles as connectors, coaches/confidantes, co-constructors and copycats. Within each of these domains, we highlight findings that represent the definition of student success that participants delineated at the beginning of the focus groups, which included academic support, personal support and feeling a sense of belonging on campus. Our findings show that peers play an overwhelming positive role in students’ lives and post-secondary experience. This is not to suggest, however, that students’ experiences at the institutions were always positive, but that peers played an important and positive role.” (p. 1082)

“For a large proportion of students living in residence, this is their first time away from home and they rely on their peers for support and guidance, particularly residence assistants/dons. As formal paraprofessionals, one of the key characteristics of residence assistants is that they receive tailored training about campus resources and services and how to appropriately refer students to these services. This knowledge and expertise allows them to connect their residents to the broader campus community, pointing students in various directions depending on their needs. Connecting students to the campus community and resources allowed students to feel part of the college community and contributed to their sense of belonging, which aligns with students’ definition of student success.” (p. 1083)

“Students identified peers as important confidants in whom to confide their fears and anxieties and as academic coaches who could guide them through challenges. Participants noted having peers who shared their academic experiences and gave advice on how to navigate classes and academic programs as well as peers who could provide personal support when faced with adversity. In both cases, peers were integral in students achieving their definition of success.” (p. 1084)

“Provincial-wide student organizations play a significant role in the Ontario exosystem, conducting and commissioning research and lobbying for an affordable, accessible and high-quality post-secondary education. At the institutional level, student unions and other student organizations are an individual microsystem within a student’s mesosystem that co-construct the learning environment by initiating programs and services to meet student needs (Robinson, 2004). During the site visits, the research team encountered numerous programs and services developed and managed by student unions such as inclusive spaces for underrepresented groups and emergency services like food banks. In addition to programs and services delivered by the student union, student respondents talked about how their peers co-constructed the campus milieu during orientation and set the tone for campus engagement including creating clubs and organizations responsive to student interests and schedules.” (p. 1084)

“Students in this study along with their peers co-constructed their environment by taking the initiative and partnering with the institution to meet student needs. In so doing, these co-constructors contribute substantially to the social support and sense of belonging on campus.” (p. 1085)

“Although extensive research has examined the impact of peers on various outcomes (Brooks & Ammons, 2003; Terrion & Leonard, 2007), our study suggests that peers, both in formal paraprofessional roles as well as informal friend and classmate, as a microsystem have an influence on strengthening interactions and connections between students and other microsystems within the post-secondary environment (e.g., faculty, advisors, employment, co-curricular opportunities, etc.). Focus group participants did not distinguish the impact that a particular type of peer (e.g., a residence assistant or classmate) made on student success. Whether in formal paraprofessional roles or informally as fellow student club members or classmates, participants valued and were thankful for their peers’ ability to connect, coach, co-construct and serve as role models who they could copy to pay | such help and assistance forward to future students. Through these connections and interactions, students found the academic support, personal support and sense of belonging they described as integral for student success.” (pp. 1085-1086)

“Our findings suggest the value in cultivating an institutional peer culture in which students have a sense of responsibility for each other’s learning and success and eagerly look to ‘pay it forward’, which extends beyond formalized peer-relations and into the day-today interactions students have with one another. Like Dalton and Crosby (2010), we conclude that administrators can influence peer culture and can play an integral role in providing opportunities for students to benefit by investigating the extent to which peer-to-peer connections and collaborations are valued, encouraged and

	<p>communicated by all institutional stakeholders at the institution. Administrators, both in academic and student affairs and services units, can foster and encourage a positive peer culture by working closely with staff, faculty and student leaders to develop avenues where peers have meaningful and continual connections.” (p. 1087)</p>
<p><b>Citation</b> Rieske, L. J., &amp; Benjamin, M. (2015). Utilizing peer mentor roles in learning communities. <i>New Directions for Student Services</i>, 2015(149), 67–77. <a href="https://doi.org/10.1002/ss.20118">https://doi.org/10.1002/ss.20118</a></p> <p><b>Abstract</b> For a number of learning community programs, peer mentors provide an additional layer of staffing support. This chapter highlights peer mentor roles from a sample of programs and suggests important components for the construction of these roles.</p> <p><b>Article Link</b> <a href="https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&amp;db=eft&amp;AN=101557588&amp;site=eds-live">https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&amp;db=eft&amp;AN=101557588&amp;site=eds-live</a></p>	<p><b>Conclusions</b> “This chapter focuses on peer mentor roles, with specific attention to peer mentors in learning communities, by identifying the limited information available about such roles, highlighting examples from a sample of learning community programs, and noting commonalities as well as valuable elements from each. The information may provide new ideas for those currently utilizing peer mentors in their learning communities and may offer suggestions for those considering incorporating student mentors.” (p. 67)</p> <p>“In Saint Peter’s University’s First Year Experience program (Saint Peter’s University First Year Experience, 2012), the Getting Engaged   in Mentoring Students (GEMS) peer mentors focus on engaging first-year students academically. GEMS foster student and community engagement by assisting with a freshman seminar course, meeting with students to help them understand coursework and homework, and supporting campus activities/events (N. Decapua, personal communication, March 20, 2014)...GEMS are expected to take the initiative to connect with students (through such efforts as meeting students in their residence halls and working with students in the tutoring center), help students prepare for major assignments and exams, and ensure that the first-year students have a seamless transition into their college career.” (pp. 69-70)</p> <p>“The GEMS position provides meaningful peer-to-peer interactions, which may increase students’ sense of belonging and connection to the institution (Kuh, 1993). Additionally, Saint Peter’s University retains their orientation leaders through the fall semester to assist the first-year students in their social skill development. Concurrently, GEMS offer academic support (N. Decapua, personal communication, March 20, 2014). This approach provides a holistic experience for students because it offers a structured opportunity for first-year students in which orientation leaders focus on social integration and GEMS focus on students’ academic success.” (p. 70)</p> <p>“The Commuter and Transfer Student Engagement office at Drexel University employs paraprofessional staff to promote involvement and engagement in the community among commuter and transfer students (Drexel University Office of Campus Engagement, n.d.). Commuter assistants</p>

(CAs) and transfer assistants (TAs) help first-year students transition to life at the university. Their specific focus on the two subpopulations is an intentional effort to enhance commuter and transfer success in academic and cocurricular activities.” (p. 70)

“Drexel’s peer mentor positions focus on the unique needs of the commuter and transfer subpopulations. There is a clear emphasis on student engagement as it relates to academic success; for example, these peer mentors | maintain regular communication with mentees through meetings, phone calls, and e-mail, and assist students in becoming involved and meeting others within their community (Drexel University Office of Campus Engagement, n.d.). By attempting to alleviate the stressors accompanying the transition to a new institution (Astin, 1984), the peer mentor role may contribute to a positive first-year experience. This ideally results in integration into the institution and then likely yields student persistence (Tinto, 1986), which benefits both the student and the institution.” (pp. 70-71)

“Through the Counseling Division at Paradise Valley Community College (PVCC), peer mentors are hired to work with students in their required first-year College Success class or in developmental reading, English, or math classes and provide guidance and support to first-year students (Paradise Valley Community College, n.d.). Specifically, peer mentors are responsible for facilitating student engagement and positive relationships in class and out of the classroom by referring students to appropriate campus resources...This leadership opportunity allows students who serve as peer mentors to earn points toward the completion of an optional leadership certificate, develop their leadership skills, and enjoy the support of other community leaders. PVCC’s peer mentor program is interesting because it occurs at a two year community college setting where it can be challenging to engage students in the absence of a residential program (Astin, 1984). These peer mentors are the students’ link to learning outside of the classroom. This leadership position helps contribute to the student culture at PVCC so that both mentors and the students with whom they work feel connected to their institution (Kuh, 1993).” (p. 71)

“Within the Office of Housing, Residential Living, and Dining at Indiana University of Pennsylvania, academic success mentors (ASMs) are used to assist specific residential students (e.g., transfer students, academically at risk students, and so on) with their educational goals and academic success (Indiana University of Pennsylvania Office of Housing, Residential Living, & Dining, 2014). ASMs foster student development through one-on-one meetings with assigned mentees, educational programming, and support of the living-learning programs within the community.” (p. 71)

“As is evident from the previously described mentor roles, many of these positions have common goals...Similar elements exist for peer mentors working specifically with learning communities. Given that learning communities are intentionally structured to offer both learning and community support, including peer mentors as part of the program’s staffing structure is advantageous. The specific goals and structural elements of the learning community provide guidance for the work of these student staff members. Often these elements are familiar to the peer mentors as applicants may be required to have participated as learning community members prior to employment.” (p. 72)

“This chapter examined several distinctly different peer mentor programs from institutions across the country. Although peer mentor programs are rapidly expanding, the research has not kept pace (Gershenfeld, 2014). It may be difficult to standardize the mentor role because different programs have significantly different needs. Despite these variations, this section attempts to highlight important elements existing in the aforementioned programs to provide common practices for those considering developing peer mentor programs.” (p. 74)

“There are certain qualities that make a good peer mentor. Newton and Ender (2010) identified several valuable characteristics, such as leadership, strong interpersonal communication skills, and relevant knowledge. In the higher education setting, it is important that peer mentors show evidence of academic strengths, often demonstrated by a strong GPA. Many programs have a GPA requirement of 2.50 or higher. Because students typically rise to the challenges presented to them by educators (Blake, 2007; Kuh, 1999), if educators establish high academic expectations for leadership roles such as the peer mentor position, students may push themselves to achieve in order to be eligible for these desirable roles. As such, these peer mentor programs should raise their GPA requirements beyond a 2.50 to raise the standard for this leadership role. Further support of academic integrity is often demonstrated through an endorsement from a faculty or staff member in the form of a reference (Minor, 2007). Beyond the academic component, it is important for students to share their experiences with one another. For many learning community programs, prior involvement in the learning community is a requirement to become a peer mentor in that community. This allows mentors to use past experiences to help their mentees. Valuable experiences as learning community members as well as information gained by observing and interacting with the peer mentors who guided them can provide important contextual information to guide the work of the peer mentors in the learning community (Benjamin, 2007).” (pp. 74-75)

“Whether the peer mentor role is a paid or volunteer position, the students who serve as peer mentors have various responsibilities, and it is recommended that a written job description be provided to peer



mentors prior to them beginning their work (Benjamin, 2007). Most universal is the expectation that mentors will engage with their mentees to help them transition to and become involved within the community. This student engagement looks different in various positions, including one-on-one student meetings, programs and events, and group socials. A secondary responsibility is one that involves personal and professional development. Peer mentors are expected to undergo training in the week(s) prior to the start of the academic year through a leadership development class or through ongoing retreats or workshops. This focus on development helps mentors refine important life skills (i.e., interpersonal, communication, helping, intervention, and so on) that can help them beyond the scope of their positions. Connecting the peer mentor position to other resources, specifically referral resources in the campus and community that they and other students would find beneficial, can further support leadership development. Ongoing supervision such as individual meetings with supervisors and program staff meetings are also important components to student mentors' development (Gershenfeld, 2014). Ultimately, this personal and professional development will help peer mentors and students who utilize their services benefit from the peer mentor role.” (p. 75)

“In each of the described peer mentor programs, there was the expectation that both the mentors and the mentees were benefiting from the relationship. For college students undergoing significant development, it is important that the peer mentor programs foster relationships that are structured to help both students involved (Jacobi, 1991). In order for the mentor | relationships to be effective, they should maintain a manageable mentor–mentee ratio (Gershenfeld, 2014). That expectation might vary from institution to institution, but the ratio must be conducive to frequent contact. This mentoring structure is best sustained when the length of the mentoring relationship is a full academic year because the mentors can have an impact on the mentees, and then the mentees can pay that forward by becoming mentors themselves. As noted in a study of residential learning community peer mentors (Benjamin, 2007), learning community participants may become peer mentors because they had an exceptional mentor and they want to emulate that experience for others, or they may choose the peer mentor role because they believe they can provide better assistance than they received as learning community participants.” (pp. 75-76)

“Peer mentor roles can be valuable to the students in the learning community, the coordinator of the learning community, and the peer mentors themselves due to the experiential education they receive by serving in this role. Relevant research supports the inclusion of peer mentor programs in a higher education setting, as they have the potential to add academic and social value to the college student experience...The authors offered several recommendations that can standardize peer mentor roles, while recognizing that peer mentor roles vary to serve the unique needs of the specific student

	<p>population, learning community, or institution. This information may be useful in creating or improving peer mentor positions and contributing to a more universal understanding of what peer mentors do and why they are so useful.” (p. 76)</p>
<p><b>Citation</b> Smith, J. L. (2017). Innovating for student success: The University Leadership Network (ULN) and Tiered Undergraduate Peer Mentor Model. <i>Metropolitan Universities</i>, 28(3), 80–101.</p> <p><b>Abstract</b> 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.</p> <p><b>Article Link</b> <a href="https://eric.ed.gov/?id=EJ1152721">https://eric.ed.gov/?id=EJ1152721</a></p>	<p><b>Conclusions</b> “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).” (p. 84)</p> <p>“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.” (p. 85)</p> <p>“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.” (p. 86)</p>

“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.” (pp. 88-89)

“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.” (p. 89)

“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.” (pp. 89-90)

“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.” (p. 90)

“*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." (pp. 91-92)

*“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 students 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 train.” (p. 93)

*“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.” (p. 94)

“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),

	<ul style="list-style-type: none"> <li>• Focus on four-year graduation, • First-year academic support (provided through academic communities and success programs or initiatives),</li> <li>• Intensive first-year leadership and professional training with ongoing training opportunities in the second- through fourth-years,</li> <li>• Second-year on-campus internship opportunities,</li> <li>• Service component,</li> <li>• Mechanism for self-reflection over four years, and</li> <li>• Institutional data analysis support.” (p. 95)</li> </ul> <p>“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.” (pp. 95-96)</p> <p>“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.” (p. 96)</p>
<p><b>Citation</b> Spaulding, D. T., Kennedy, J. A., Rozsavolgyi, A., &amp; Colón, W. (2020). Outcomes for peer-based mentors in a university-wide STEM persistence</p>	<p><b>Conclusions</b> “This article provides a program overview for a large university-wide peer mentoring program, whereby 372 mentors served over 3,000 firstyear students across three years.” (p. 30)</p>

program: A three-year analysis. *Journal of College Science Teaching*, 49(4), 30–36.

### Abstract

While the majority of STEM persistence has focused on outcomes for first-year students, there has been little investigation into the outcomes for peer mentors. Of the studies conducted, results are promising. Benefits for peer mentors include a change in their perceptions on teaching and learning; an improvement in their communication, presentation, and leadership skills; and an increase in their understanding of the course content. However, one of the main limitations of these studies is their small sample sizes. Many of the studies purport sample sizes of 5 to 30 peer mentors. The purpose of this article is to overview, from the perspective of the mentors, a university-wide interdisciplinary peer mentoring program for first-year students enrolled in key gateway courses (Calculus I, Physics I, and Chemistry I). Each year over 1,000 undergraduate students participated in the program and were served by approximately 136 peer mentors. The program was monitored by an advisory committee comprising an interdisciplinary team of faculty, university staff, program staff, and an outside consultant. This article examined mentor outcomes and included the data from over 300 mentors.

“A research-intensive (R1) university located on the upper eastern seaboard with a total enrollment of approximately 6,400 undergraduate students recognized the need to better support first-year students, particularly in the crucial first semester. In 2014, the institution secured a five-year grant for \$1.2 million from the Howard Hughes Medical Institutes (HHMI) to design and implement an Integrative Program for Education, Research and Support Involving Science and Technology (I-PERSIST). The purpose of this learning community program was to provide all first-year students enrolled in one or more of the introductory, faculty-taught, STEM courses (i.e., Calculus I, Chemistry I, or Physics I) with weekly small group, tutoring-support sessions run by a peer mentor. The main objectives of I-PERSIST were to: improve student experiences in these three ‘gatekeeper’ courses, help incoming STEM students develop key study and social skills shown in the literature to help students persist, improve student academic achievement, and increase the percentage of first-year STEM students continuing at the institution. The long-term goal of I-PERSIST was to increase student persistence in STEM fields. Retention of first-year students has remained stable even though the number of incoming students has increased.” (p. 31)

“In order to provide enough peer mentors for the incoming 1,000 first-year students, an average of 124 mentors were recruited annually. Peer mentors were mostly second or third year undergraduates who applied in January to serve as a mentor starting in the fall (see Table 1).” (p. 31)

“Mentors were each assigned two groups of eight to ten students and held sessions with each group for one hour once a week...During the weekly sessions, mentors worked with their mentees to reinforce material and concepts taught during weekly course lectures. Mentors also taught first-year transitional content (study skills, time management, test-taking strategies, etc.), similar to subjects found in traditional first-year seminar courses. In addition to weekly mentoring sessions, mentors were required to hold two hour-long office hour sessions a week. These office hours were designed to provide students with individual time to ask content-related questions.” (p. 32)

“The mentor survey was administered in the fall of 2015–2017 and consisted of a series of close-ended items and open-ended items. The purpose of the survey was to gather mentor perceptions of the overall mentoring process, skills development, relationships established, and connections to the institution formed as a result of participating as a mentor.” (p. 33)

“Survey data for mentors were collected internally by institutional research, along with demographics data (i.e., gender, ethnicity). Surveys were administered at the end of the fall semesters to mentors and overall 83% (309) responded.” (p. 33)



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“Overall, mentors reported positive outcomes associated with skill development. Most agreed that as a result of being a mentor they had increased their own leadership, study, presentation, and time management skills. From year to year, mentors had an increase in this perception. An ANOVA revealed that the difference in 2017–18 means for leadership and presentation skills were significantly greater than for 2015–16 or 2016–17 (see Table 3).” (pp. 33-34)

“In addition to skills, mentors also reported agreement with topics related to content knowledge and self-regulation. An ANOVA revealed a significant difference in mean for 2017–18 compared to the other years for increased knowledge of the subject matter, greater motivation to be successful, and better able to cope with stress (see Table 4).

Mentors also reported a stronger connection to others in the college community. More specifically, a posthoc analysis revealed that all four items supporting improved academic relationships were found to be significant for 2017–18 compared to the other years (see Table 5).

Lastly, mentors’ satisfaction with the institution were examined. Posthoc analysis revealed that across all three items related to connecting to the institution, the 2017–18 mean was statistically significant compared to the other two years. Mentors in year 2017–18 may have been in more agreement about the outcomes and benefits of their mentoring experience. Many of them had served as mentors previously compared to the two other years. Approximately, one third of the mentors were returning mentors, which program officials perceived as a positive sign. This high rate of returning mentors increased the quality of the program, thereby enhancing the mentoring experience for both mentees and mentors (Table 6).” (p. 34)

“Another item gathered was about the benefits mentors believed they gained from the experience. These benefits included, but were not limited to giving back to the institution; connecting with faculty and first year experience personnel; making friends; and developing leadership, presentation, and social skills. When asked if they would consider mentoring again, the majority of mentors indicated that they would.” (pp. 34-35)

“...Results from this project demonstrated that mentors received valuable skills that will serve them well as they enter their respected professional fields. Developing these skills may also be another reason the institution has seen the steady increase in interest by students to serve as mentors. In addition, this project has also helped to expand the outcomes generally associated with mentors. Research on peer mentoring has focused on increasing mentors’ skills and content knowledge;

	<p>however, this project also documented the ability of mentors to foster positive relationships with faculty and staff, and form an overall better bond with the institution as a whole.” (p. 35)</p> <p>“One of the core components to implementing the I-PERSIST program was that students be willing to serve as mentors without financial compensation. This was an essential aspect for long-term sustainability and for feasible implementation at other universities. While this program was implemented in a four year school, there is no reason it could not be replicated in a community college. Before scaling up a current program or implementing a new program of this size, it is recommended that the institution determine whether there may be enough interest from students to serve as mentors. A shortage of appropriate volunteer students to serve as mentors would pose a great challenge to successfully implementing this model.</p> <p>This large-scale effort required a high level of collaboration and coordination within the organization from both STEM faculty and Student Life staff. Program team members, faculty, and members from the Offices of First-Year Experience, Student Support Services, and Institutional Research met monthly throughout the academic year to address programmatic concerns, review formative and summative student outcome data, and modify the programming accordingly. This level of commitment is essential for running a successful campus-wide mentoring program.” (p. 35)</p>
<p><b>Citation</b>  Tout, D., Pancini, G., &amp; McCormack, R. (2014). Using mobile peer mentors for student engagement: Student rovers in the learning commons. <i>Higher Education Research and Development</i>, 33(3), 595–609.  <a href="http://dx.doi.org/10.1080/07294360.2013.841645">http://dx.doi.org/10.1080/07294360.2013.841645</a></p> <p><b>Abstract</b>  This paper presents findings from a 2010 evaluation of Victoria University's Student Rover program, an on-campus work-based learning program in which mobile student mentors are employed and deployed within the university's Learning Commons</p>	<p><b>Conclusions</b>  “The Victoria University (VU) Student Rover program is an on-campus workplace learning program in which mobile peer mentors are employed to provide ‘just-in time’ and ‘just-in-place’ learning support to other students within the university’s Learning Commons.” (p. 595)</p> <p>“As a key element in the design of the new Learning Commons, since 2006 with the opening of the first VU Learning Commons, the Student Rover program has employed current students, usually in their second year of study, to support other students by drawing on the understanding and skills they have acquired through their own experiences as students. The Student Rover program was established as a primary strategy for increasing the student-friendliness of the new Learning Commons and thereby facilitating social and educational engagement amongst students, especially those new to university. Ten students were originally employed to work eight hours each per week in two four-hour shifts, patrolling the Learning Commons and assisting students in negotiating the university’s library, learning and IT systems. As new Learning Commons have opened at different campuses, new Student Rover teams have been created. At the time of writing, each of the university’s five Learning Commons has a team of Student Rovers and there are close to 50 Student Rovers working across the university.” (p. 596)</p>

to provide "just-in-time" and "just-in-place" learning support to other students. Student Rovers are paid not to perform a quasi-staff role, but to be students who help other students learn and, in this process, to model both learning to learn and collaborative learning behaviours. Drawing on specific findings from a large-scale student survey, a small-scale staff survey and focus groups conducted with Student Rovers themselves relating to perceptions of the socio-institutional status of Student Rovers, the paper is concerned with exploring the anomalous nature of the Student Rover role and speculating as to the potential for change inherent within this situation. Reworking Billett's conceptualisation of co-participatory workplace practices, we propose that by framing the work of Student Rovers as "learningful" workers operating within the liminal institutional contact zone between staff and students, the program may prove to be not simply a successful strategy for helping new students engage in campus life--while simultaneously preparing Student Rovers themselves for negotiating contemporary organisational circumstances of change, complexity and contingency--but also a precursor to an emergent, institutionally recognised, educational role of students paid to support the learning of other students.

### Limitations

“Importantly, Student Rovers are not provided with special training in order to form a new tier in the existing institutional service delivery system according to a ‘Help Desk’ model. Instead, on the assumption that adequate support systems of this kind already exist, they are trained ‘on-the-job’ and are paid to share with other students as well as each other their existing technical know-how, navigational and contextual knowledge concerning where to find information on institutional systems and services, as well as the spatial and virtual locations of the resources required for successful study at university. Student Rovers are, therefore, employed as students who have had the opportunity to develop a deep familiarity with the complex, ‘always-in-process’ systems comprising the essential underlying infrastructure for tertiary study in a digitised world. They are charged with sharing their contingent, contextual knowledge with other students – especially new students – and, through this process, with modelling successful learning strategies and collaborative learning behaviours within the Learning Commons. In this sense, the Student Rovers fulfil an important educational function within the university and, as a consequence, are paid a casual hourly rate in recognition of their contribution to the university’s educational work.” (p. 596)

“In 2010, funding was found for staff in the Student Learning Unit to undertake an evaluation of the Student Rover program in order to further our understanding of the perceived and actual effectiveness of the program in supporting student learning within the Learning Commons. Paper-based and online surveys were distributed to students throughout the course of 2010, both physically at each of the three Learning Commons within which Student Rovers were operating at the time as well as electronically via student email. A total of 807 student responses were received (n = 807). In addition, an online survey was distributed to a small selection of staff working within the Learning Commons, from which a total of 11 responses were received (n = 11)...Further to the staff and student surveys, a series of five focus groups were conducted with Student Rovers towards the end of 2010, in which 14 of the 30 Student Rovers employed at the time participated.” (p. 601)

“In each session, Rovers were asked whether they regarded their own role as being more like staff or more like students. As the following excerpts reveal, Student Rovers’ self-perception reflected a similar trend to the results displayed in Figure 4. In response to the interview question ‘do you regard yourself as more like staff, more like students, or a bit of both?’ Student Rovers variously responded: ... a bit of both I would say ... we’re sort of at the halfway point, we interact with students and staff ... so we can be sort of like the bridge; I think somewhere in between like I think our role is not to take over, not to be librarians ... but I think just connect more with students, make the students feel more comfortable;

“Clearly, there are limitations to the data on which this paper is based. Although the student survey numbers were extensive enough to provide an adequate basis for the particular findings outlined above, the staff response rate was so limited as to render the validity and generalisability of the staff survey results questionable to say the least.” (p. 607)

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I feel more like staff simply because I get paid ... But the way I approach the students is just like a student.

The first of these comments clearly and explicitly articulates the role of Student Rovers as acting like a ‘bridge’ between staff and students, echoing our proposed conceptualisation of the Student Rovers as facilitators, mediators or Wengerian brokers between the institutional entities of staff and student.” (p. 603)

“First, in identifying payment as a form of induction or legitimation into the institution as staff, the Student Rover cited is alluding to the conflicting imperatives between the logic of productivity and the logic of learning. Furthermore, and perhaps more importantly, this comment also indicates Student Rovers’ level of awareness concerning – as well as their ability to articulate – the inherent duality, indeterminacy and potentially conflictual imperatives arising as a result of their construction as simultaneously staff and student, an awareness also articulated by other Student Rovers:

Like, if you are interacting with the students then you have to be as a student, but if you’re interacting with the staff you have to be like, act like staff;

The way I approach each situation will be different, like if I was approaching a staff member I’d approach them as staff...and a student as a student but...if you ask me are you staff or student, I’d say I’m a student because I’m still in an undergraduate program.” (p. 603)

“In a similar sense to the survey results displayed in Figure 4, these comments reflect Student Rovers’ perception of themselves as inhabiting or embodying the dual role of both staff and student. However, here Student Rovers also appear able – and, equally importantly, appear to be aware of their own ability – to adopt a specific stance as either staff or student depending on the circumstances, revealing a level of meta-cognitive self-reflection, awareness and flexibility we regard as fundamental for | successful negotiation of the liquid modern workplace. Yet as the second comment in particular suggests, when asked to prioritise one role over the other, it seems that Student Rovers still fundamentally conceive of themselves as students. This is indicative of an underlying and intractable element of studentness which the Student Rovers themselves appear to consider an essential ingredient in the program’s success at achieving its original and explicit intention of making the Learning Commons more ‘welcoming and non-threatening for students.’” (pp. 603-604)

“Student Rovers identified two distinct features differentiating them from other staff working within these spaces. First, the fact that many Student Rovers come from nonEnglish speaking backgrounds, whether as domestic or international students, was recognised as enabling students from similarly diverse backgrounds, many of whom may struggle with their English and therefore confidence when

approaching staff members for help, to feel capable of engaging with and seeking assistance from the Student Rovers instead.” (p. 604)

“The second aspect of their role that Student Rovers identified as important in differentiating them from other Learning Commons staff and thereby contributing to the creation of a ‘welcoming and non-threatening’ learning environment for students was the specifically studently mode or style of communication and level of understanding they were able to provide:

We can sort of talk to them at the level that staff can’t, students interact with each other differently to the way you do with staff. So being a Rover, you’re then having the advantage of being staff and student; |

I think library staff is also approachable but...it’s just easier...because we’re students as well, so we understand like what...the student’s asking, what they feel like;

So the way we ask questions too as a student...if you’re not a student yourself you won’t sort of understand what they’re asking. So by...having that student experience you can go straightaway, I know what you are asking and...I know the main points that you need to know.” (pp. 604-605)

“This studently mode of address seems effective in putting students at ease and reducing ‘library anxiety’ (Sadler & Given, 2007), a phenomenon widely identified amongst the general student population in higher education and typically attributed to the common ‘perception that library staff members are unapproachable’ (Sadler & Given, 2007, p. 121). While the Student Rovers were quick to defend the approachability of the staff members they worked alongside within the Learning Commons, it seems reasonable to assume that the level of ‘library anxiety’ amongst VU’s particular student cohort would be high.

As is evident in the following anecdote recounted during one of the focus-group sessions conducted with the Student Rovers, Rovers’ ability to engage with students in a non-threatening and unthreatening manner at the collegiate level of fellow students can potentially function as a powerful force for defusing students’ anxiety.” (p. 605)

“...Learning Commons staff members were asked to rate the effectiveness of Student Rovers in fulfilling their dual roles as both first-tier service workers and as a learning support strategy for students within the Learning Commons. While only four out of 11 staff respondents (36%) either agreed or strongly agreed that Student Rovers had successfully fulfilled their role as first-tier service workers, eight out of 11 (73%) either agreed or strongly agreed that they had been effective in providing learning support for students within these spaces. Given that there were only 11 staff respondents, the validity and generalisability of these results must not be overstated, yet they

nevertheless seem to suggest that staff and students similarly perceive the Rovers as a reasonably effective learning support strategy relative to their effectiveness | as Fordist first-tier service workers. However, there remains a resistant block of staff that is unsatisfied with how and where the Student Rovers fit into the institutional structure.” (pp. 605-606)

“...Student perceptions of the Rovers’ positive impact on the Learning Commons were somewhat higher than those of staff members working within these spaces, with 78% of students either agreeing or strongly agreeing with the proposition and only 7% either disagreeing or strongly disagreeing, as against 72% of staff members either agreeing or strongly agreeing and 18% disagreeing. When these results are considered in combination with the results above concerning staff perceptions of Student Rovers’ fulfilment of their dual and conflictual roles, they would seem to support the suggestion that the Rovers possess, or are at least perceived as possessing, a greater positive potential for the provision of learning support than the fulfilment of the straightforward role of first-tier service worker. Yet once again, with only 11 staff survey responses obtained, such suggestions should not be overstated.” (p. 606)

“Figure 6 displays the results of a survey question asking student respondents who had received assistance from the Student Rovers in the past to rate their satisfaction with the assistance they had received. Over 80% of students responded that they | were either quite or very satisfied with the assistance they had received from Student Rovers, while this figure is raised to over 95% of students if ‘somewhat satisfied’ respondents are also included. These data suggest that students find the assistance and support provided by Student Rovers generally satisfactory.” (pp. 606-607)

“The Student Rover program has recently combined with the university’s Student Peer Mentoring programs to form a larger learning support strategy known as Students Supporting Student Learning (SSSL). Student Mentors who were previously unpaid, are now paid; and the allocation of staffing and resources for SSSL provision has increased significantly at a time of general contraction across the university. Moreover, a number of faculties are coming to recognise that, after initial seeding, SSSL programs can cover their own costs through increased student retention and progression and so are more prepared to fund SSSL programs. Finally, the Vice Chancellor’s Advisory Committee has endorsed SSSL as ‘a key learning support strategy’ for the university. Taken together, these developments suggest that a role which initially appeared anomalous is potentially in the process of morphing into the more regularised role of students who are paid to support the learning of other students.” (p. 607)

	<p>“This paper has explored perceptions and engaged in speculative projections around the socio-institutional status of Student Rovers operating in university Learning Commons. Our argument is that their anomalous status can be framed as part of a more general trend in which responsibility for student learning is transferred to students themselves. By enlisting the energy, enthusiasm and skills of students themselves, SSSL programs such as Student Rovers and Student Peer Mentoring programs can contribute by creating, renewing and passing on to new students a shared toolkit of student-based knowhow and understandings. It is our view that the gradual consolidation and codification of this new SSSL role and source of knowledge could take on increasing importance in universities.” (p. 608)</p>
<p><b>Citation</b> Walters, G., &amp; Kanak, A. (2016). Effects of peer mentorship on student leadership. <i>Honors in Practice</i>, 12, 59–76.</p> <p><b>Abstract</b> Orienting and welcoming first-year students to campus and to honors programs are often key components of program development. At an institutional level, successful orientation programs can positively affect retention rates from the first to second year. The greater a student's involvement and integration into the life of the university, the less likely the student is to leave (Tinto). Institutional retention often translates into retention within honors programs as well. The most important benefit of orientation, however, is that students feel welcomed at the university and within the honors program. Not only do they understand the requirements of the program, but they also make friends and begin to envision how they might use their honors program</p>	<p><b>Conclusions</b> “...Institutional retention often translates into retention within honors programs as well. The most important benefit of orientation, however, is that students feel welcomed at the university and within the honors program. Not only do they understand the requirements of the program, but they also make friends and begin to envision how they might use their honors program experience to grow as scholars and citizens while also having a bit of fun in the process. In an attempt to achieve all of these goals, the honors program at Minnesota State University, Mankato established a first-year honors student retreat incorporating peer mentors.” (p. 59)</p> <p>“In 2014, we contacted students who had completed Developing Your Mentor Philosophy about the opportunity to help create a retreat, and a total of six students responded. These students chose various roles to help teach first-year students about one of the program’s competencies: leadership, research, or global citizenship. Then in 2015, the program’s graduate assistant introduced a formal application process to recruit upperclassmen as student volunteers. Application questions elicited information about qualities and skills the student possessed; experience in leadership, research, and global citizenship; the student’s experience with the transition from high school to higher education; any group facilitation practice; and a personal or professional reference. We encouraged any student who had completed Developing Your Mentor Philosophy or helped with the retreat the previous year to apply. After a week, we had a total of fourteen applicants. We accepted all applicants and assigned specific roles based on application answers. Six of the students became facilitators. Their role was to develop activities related to leadership, research, and global citizenship. Two other students were named retreat coordinators, who were responsible for overseeing the facilitators. The remaining six students assumed the role of student coordinators. All mentors worked as a team to increase the level of student participation, thus making the retreat almost entirely student-planned.” (p. 62)</p>

experience to grow as scholars and citizens while also having a bit of fun in the process. In an attempt to achieve all of these goals, the honors program at Minnesota State University, Mankato, established a first-year honors student retreat incorporating peer mentors. This article describes the rationale behind the first-year student retreat, the procedures for organizing and facilitating it, and its impact on both first-year students and mentors. The hope is that this article might inspire and encourage other honors programs to implement high-impact practices that facilitate successful student transition into college.

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“The mentors decided that their purpose was to inform first-year students about honors competencies, facilitate open discussion on how to approach these during academic careers, and develop their own leadership skills through activity facilitation. “Peer leadership programs...give upper-class students the opportunity to serve as leaders by assisting with extra curricular activities, course teaching, tutoring, and other pursuits” (Leichliter 156). Fulfilling this leadership role, the mentors decided that activities should focus | on the honors competencies of leadership, research, and global citizenship. They also wanted to incorporate activities that focused on information helpful to new students. Staff and students planned a full day of activities that included sessions about program requirements, fitting honors into various majors, understanding the concept of reflection, and finding faculty research mentors. After meeting monthly starting in January, planning sessions for the retreat concluded at the end of spring semester with an itinerary outline, a request for materials, and a list of confirmed faculty and student volunteers. When the 2014–2015 academic year began, student leaders practiced facilitation with their partners. During their introductory honors courses, first-year students signed up to attend so that leaders could cater the activities to a definite number of participants. The retreat was not mandatory for first-year students although staff highly recommended it.” (pp. 62-63)

“Student leaders practiced group facilitation and mentoring techniques, provided an event for first-year students to interact with the mentors, and advised their peers in honors competencies and language. The most immediate payout for student leaders was that they practiced event planning and coordination. The leaders hosted frequent formal meetings during the semester before the retreat, reviewing the previous agendas and proposing changes and additions to programming. The leaders were creative in their design of engaging activities given the resources available. In reflecting on their past experiences, they could create better activities by filling gaps and taking ownership of projects. Coordinating with other student | leaders on a team allowed the leaders to practice active listening skills. Clear communication of ideas was key, and accepting criticism added to their interpersonal skills.” (pp. 63-64)

“Student leaders who were enrolled in Developing Your Mentor Philosophy benefitted in ways beyond event planning and coordination; by providing an event for first-year students to interact with the mentors, the leaders promoted the progress of the mentorship program, developing their abilities to be resourceful while practicing interpersonal communication skills. They practiced their personal philosophies of mentorship by demonstrating their abilities to advise peers in honors competencies and language. As the primary facilitators of the retreat, the mentors led activities and games centered on students’ learning needs. They practiced group development skills and encouraged sharing of diverse perspectives.” (p. 64)



“...Two mentors who previously participated in the retreat as first-year students wrote an article for *The Honors Beacon*, the program’s biannual newsletter, in which they described organizing the event, forming relationships with first-year students, and developing their own leadership philosophies (Anderson & Cummings). As student mentors identify and reflect on positive aspects of their leadership development and consider how to take that development into their future careers, we hope that they will include this experience in their reflections.

If students have the opportunity to serve as leaders again or take on a coordinator position, we also hope that they will take the opportunity to build on their first experience as a leader, taking on other leadership roles within our program, i.e., on the Honors Student Council Board, or outside the program in other campus organizations. Through extended involvement, students can continue to build their leadership and mentorship philosophies. Given the infancy of the retreat, we do not have enough data yet to determine whether it has led directly to skills and personal philosophies of leadership, but research on other campuses suggests such a direct connection (Komives et al.)” (p. 64)

“We hope that the retreat helps to develop a concrete understanding of abstract ideas, specifically the honors competencies of leadership, research, and global citizenship. Based on student artifacts from our course *First-Year Experience* in fall 2015, we believe that the retreat activities are integral to students’ understanding of the competencies. When asked to reflect on key experiences from their first semester, many students cited the retreat as a key piece of their development. Some students stated that the retreat provided more knowledge or context for all three competencies and the honors program in general. One student stated, ‘This event has helped me to have a better understanding on what leadership, global citizenship, and research mean in the context of the Honors Program. Prior to the event, I had a vague understanding of what the three meant, but now I have a better, but not complete, grasp on them.’ Another said, ‘From this experience I was able to better visualize what the expectations of me as an Honors student are and how I can complete the Honors Program.’ Other students found the event to be primarily beneficial for one competency area. For example, one student articulated a new perspective on the concept of research: ‘The first and most important thing I learned during this event was about research, the competency I knew the least about. It lessened my worries about how hefty the word ‘research’ is. I now understand that research can be an experiment, a survey, or simply an observation.’ Other students identified social benefits from the retreat as well. One student said, ‘It was a good event to lay the foundation of what the program is about in a fun and engaging way. I made good connections with other Honors students I had not met yet.’ Whether students found the primary benefit to be comprehension of the overarching expectations of honors students, specific or general competency development, or development of a social community, all who

chose to reflect on the experience agreed that the retreat was a valuable extracurricular experience.” (p. 65)

“Our student leaders gained first-hand knowledge about time management while facilitating the retreat and came to realize that length of activities plays a big role in participation. Time was a factor in the planning between our first retreat and the second. The students felt the day was too long, and the breaks led to disengagement. Shortening the retreat to a half day greatly reduced the financial strain on the program as the need for materials and food was cut in half. As the program grows and the number of participants increases, the need for longer debriefing and discussion periods will probably increase. The leaders will need to manage this time wisely and implement creative solutions such as smaller group sizes and interactive reflection initiatives.” (p. 66)

“We are encouraged to continue the first-year student retreat based on qualitative and quantitative data that show its success (Appendix C & Appendix D). On survey evaluations, students have consistently indicated on a Likert scale that the retreat helps them understand the three competencies and learn ways to advance their development. Students have stated that they are more aware of what they’re ‘going to be doing in honors,’ of ‘how to start research’ and ‘how to fulfill competencies.’ They have also stated that the most significant piece of information included the idea that ‘everyone has leadership skills’ and that they don’t need to ‘feel overwhelmed with everything.’ One student stated that the honors program is ‘more than just school.’ A particularly gratifying piece of feedback was that a first-year student ‘loved being with the mentor of my major.’ These reactions are all outcomes that we hope for from the retreat. Furthermore, we hope that many students who attend the retreat as first-year students choose to be mentors and student retreat coordinators in future years. Dewart et al. have stated that, once students have gained academic information about increased student learning and have found benefits from participating as mentees, their willingness to participate in the program as mentors increases, thus providing a self-perpetuating model. Of the first-year students who participated in 2014, eight participants went on to provide facilitation and/or served a leadership role during the 2015 retreat. Our program looks to expand the roles of the retreat leaders; as outlined in Johnson, peer mentors serving as teaching assistants can provide beginning students with first-hand accounts of honors involvement. We are actively working on developing such teaching assistantships for the 2016–2017 academic year.” (pp. 66-67)

“Based on our experience at MSU, Mankato, we believe that honors programs benefit from high-impact practices that facilitate short- and long-term growth and development within their students. First-year students need a successful transition to the university and their honors program for the sake

	<p>of the program’s development as well as the students’. With universities examining retention as an indicator of progress and success, honors programs can use a first-year retreat to facilitate student transition. We believe that our model serves as a successful example, and we hope that it inspires other programs to create similar practices.” (p. 67)</p>
<p><b>Citation</b> Yomtov, D., Plunkett, S. W., Efrat, R., &amp; Marin, A. G. (2017). Can peer mentors improve first-year experiences of university students? <i>Journal of College Student Retention: Research, Theory &amp; Practice</i>, 19(1), 25–44. <a href="https://doi.org/10.1177/1521025115611398">https://doi.org/10.1177/1521025115611398</a></p> <p><b>Abstract</b> The effectiveness of a peer-mentoring program was examined at a university in California. Previous studies suggest university peer mentoring might increase students' feelings of engagement, which can contribute to their retention. Pretest and posttest data were collected from 304 freshmen (mentored and nonmentored) during the fall of 2012 in a quasi-experimental design. Results indicated mentored students felt significantly more integrated and connected to their university at the end of their first semester compared with nonmentored students. Mentees also provided qualitative responses about what they found beneficial and what they felt could be improved in the program. Results suggested peer mentoring helped the</p>	<p><b>Conclusions</b> “This study presents the results of an evaluation of a university peer-mentoring program for students in a freshman-level class designed to prepare first-year students for their college career. The peer-mentoring program was one component of a federally funded, university-wide program designed to help students succeed. Freshmen at the university were given the opportunity to enroll in a UNIV 100 course (i.e., introductory course designed to familiarize freshmen with a college environment and help them prepare for the rest of their academic career).” (p. 27)</p> <p>“Each cohort consisted of 20 to 25 students, divided equally between two mentors. Some cohorts received only one mentor (if the mentor had a great deal of experience). The peer-mentored sections of UNIV 100 were structured such that mentors actively modeled effective in-class behaviors for their mentees. For instance, the mentors were expected to show up on time to class, sit up straight in their chair, take initiative in asking questions of the instructor, and keep their cell phones out of sight. The mentors were trained to spot warning signs that a student was not doing well (e.g., consistently showing up late to class or not participating in class activities). If deemed necessary, the mentor would intervene and help the student get back on track.</p> <p>In addition to participating in class, the mentors engaged their mentees in three specific activities throughout the semester. The first was a one-on-one meeting between the mentor and each mentee. The meeting lasted about 30 minutes, and the mentor took the opportunity to get acquainted with each of the mentees (e.g., learn about their background, hobbies, interests, and career goals). The second activity had the mentors work with each mentee to become familiar with one academic resource on campus that the mentee wished to utilize (e.g., library, counseling services, and academic advisement). The mentor then helped familiarize the mentee with the selected resource. For the third activity, the mentor arranged for a group of three to four mentees to attend an event on campus that was not part of the mentor program. For instance, the group could attend a campus sporting event, a free musical concert on campus, or take a tour of the campus art gallery.” (p. 28)</p> <p>“The experimental group included students in 19 UNIV 100 classes where students received peer mentors as part of the program. The comparison group included the remaining UNIV 100 students who did not receive peer mentors...Surveys were taken online using Qualtrics.com software. A link to</p>

students feel more integrated and supported at college, which might reinforce their persistence toward graduating.

**Limitations**

“For all students contacted to take the survey, the response rate was less than half at pretest and a third at posttest.” (p. 39)

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the pretest survey was emailed to students in the first week of the fall semester, and a link to the posttest was emailed at the last week of the semester.” (p. 29)

“At posttest, students with peer mentors (when compared with the nonmentored students) reported significantly more integration into the university, felt significantly more active at school, and felt a significantly stronger positive connection to the university (see Table 2), even after controlling for pretest scores. In addition, the mentored students were significantly more likely than nonmentored students to report they had at least one person they could turn to for emotional support and academic support, compared with nonmentored students.” (p. 32)

“From pretest to posttest, students reported significantly more integration into the university, felt significantly more active at the university, felt a significantly stronger positive connection to the university, and agreed significantly more that they had at least one person they could turn to for emotional support and academic support.” (p. 33)

“...The most commonly mentioned benefit by 26.3% of the mentees was that the peer mentors provided general assistance and were very helpful. For example, one female, Mexican American mentee stated, ‘Having a peer mentor was very beneficial because I knew exactly who to go when I needed assistance or someone to answer any of my questions.’ The second most mentioned theme (i.e., 25.1%) was that the peer mentors were friendly, approachable, and available. For example, another female Mexican American mentee said, ‘They were very helpful and friendly. They helped me throughout everything, and I wasn’t scared to approach them.’ Similarly, a female Latina mentee stated, ‘He was approachable, and he knew almost everyone in my major.’ The next most frequent theme (i.e., 21.6%) was that the peer mentors gave emotional support, encouragement, and help with personal issues. A male mixed ethnicity mentee stated, ‘You could talk about anything with them. Mine was like an academic AND emotional counselor.’ Similarly, a female Black mentee stated, ‘That you can talk to them about anything and they are very helpful if you have problems.’ The next most mentioned theme by 13.5% of the mentees was that the mentors were relatable and developed good relationships with them. . For example, a male Middle Eastern American student stated, The peer connection that was made was not only evident but truly useful. I was able to build a relationship with my assigned mentor and now I trust her judgment 100% and know I’ll have her assistance even after the class is over.” (p. 36)

“Seven additional themes were mentioned (see Table 6): (a) advice about major, (b) campus resources, (c) transitioning to college, (d) campus opportunities, (e) help with schoolwork, (f) knowing the

	<p>campus, and (g) time management or study habits. A few other comments by mentees follow. A male Asian mentee stated, ‘Helped by having someone in the class that knew what was going on around campus instead of having to ask 20 different people,’ while a female Guatemalan American mentee stated, ‘The peer mentors gave us that extra push to break from that freshman shyness, along with familiarizing ourselves with the campus.’ And finally, A female Latina mentioned a few of the themes by stating, ‘I found that they were very nice and always available [sic] to help. They were both great help in advice tips and also they were someone you can turn to when you are stressing.’ It should be noted that 4.1% of the respondents stated the peer mentors were not helpful or there were no perceived benefits of the peermentor program.” (p. 36)</p> <p>“This study was an evaluation of a university peer-mentoring program at a comprehensive university in Southern California, which aimed to increase retention and graduation rates at the university. The effectiveness of the program was measured through students’ feelings of belonging, connectedness, perceived academic and social support, and familiarity with campus resources and facilities. Compared with students without a peer mentor, students who were assigned a peer mentor reported feeling significantly more integrated into the campus and more connected. Mentored students’ feelings of connectedness and integration increased significantly from the beginning of the semester to the end of the semester. Results paralleled other studies that found peer mentoring to be beneficial in promoting feelings of integration and perceived supportiveness, which might consequently help students to persist beyond their freshmen year and graduate on time.” (p. 40)</p>
<p><b>Citation</b> Young, R. W., &amp; Cates, C. M. (2005). Playful communication in mentoring. <i>College Student Journal</i>, 39(4), 692–701.</p> <p><b>Abstract</b> Freshmen in an orientation course at a state university answered questionnaires about their peer mentors' playful communication and about how well their peer mentors help them ease tensions of socialization. Results showed that a mentor's perceived playful communication helped the protégé ease tensions of</p>	<p><b>Conclusions</b> “Playful communication is a non-serious type of informal communication that includes humor, telling stories, teasing, and gossiping. People in organizations engage in playful communication primarily for enjoyment...The authors of the present study propose that playful communication leads to effective mentoring because these forms of communication help the protege ease tensions of socialization into an organization...We propose that through playful communication with their proteges, mentors help them to feel both a sense of connectivity and individuality, ease their tensions of socialization, and thus help them adapt to the organization.” (p. 692)</p> <p>““Hypotheses H1: There will be a significant positive relationship between proteges' perceptions of mentors' playful communication and proteges' perceptions of their mentors' ability to help them ease tensions of socialization. H2: There will be significant positive relationships between the protege's level of liking the mentor and each of the following variables:</p>

socialization. Protégés liked mentors who engaged in playful communication, but regression results suggest that it was protégés' perceptions of the mentors' playful communication that helped protégés adapt to the organization and not the protégés' perceptions of their mentors' attitudes. Reprinted by permission of the publisher.

### Limitations

“Conclusions concerning the importance of the protege's perceptions of the mentors listening and playful communication are limited to peer mentoring and may be constrained by characteristics of the population of this study. It may be that for freshmen in college (ages 18-22) these forms of communication may be more salient than for older proteges. Results may be most applicable to women proteges who have women mentors since most of the proteges were women (104 out of 183) and most of the mentors were women (153 out of 183). Further research should investigate listening and playful communication between mentor and protege for different academic settings and populations.” (p. 699)

### Article Link

<https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eft&AN=507845969&site=eds-live>

A. Proteges' perceptions of their mentors' ability to help them ease tensions of socialization.  
B. Proteges' perceptions of their mentors' playful communication.” (p. 695)

“During the last week of the semester, questionnaires were distributed to instructors of a university orientation course for first semester freshmen in a state university in the southern United States. Most of the students in this orientation class were between the ages of 18 to 20. Each student in this orientation course is assigned a peer mentor by an office of the university charged with providing new students with orientation and instructional support. The peer mentor is an upperclassman that helps the protege become better acquainted with the university. There were 25 students in each of the eleven sections of orientation classes making a target population of 275 proteges. Each section was assigned a peer mentor. Three instructors failed to distribute the questionnaires. Eight instructors of these sections distributed questionnaires to their students, and 183 (79 males, 104 females) of these 200 questionnaires were returned. These proteges reported having 153 female and 28 male mentors with two missing responses.

Peer mentors posted their office hours (10 hours a week) and were required to be available to meet with proteges during these times. Proteges could voluntarily visit with their mentors during these times. Frequencies of response to the question about how often proteges talked with their mentor were as follows: everyday = 25 (13.7%), two or three times a week = 46 (25.1%), once a week = 19 (10.4%), three or four times during the semester = 50 (27.7%), once or twice during the semester = 43 (23.5%).” (p. 695)

“A total of 28 seven-point Likert type items were used to measure proteges' perceptions of outcomes and mentors' playful communication. Thirteen of these items were concerned with outcome-that is how well proteges perceived their mentors as helping them balance tensions of socialization into an organization. Fifteen items addressed the proteges' perception of mentors' playful communication.” (p. 695)

“Results from the regressions support all the hypotheses and demonstrate the importance of protege's perceptions of the mentor's playful communication and liking of the mentor for effective mentoring. The protege's perception of a mentor's playful communication helps the protege ease his or hers tensions of socialization into an organization. Additionally, the protege liking of the mentor helps protege's ease tensions of socialization. Furthermore, results suggest that mentor's perceived playful communication is a part of a liking relationship between the mentor and protege. Results, however, indicate that it is the protege's perception of the mentor's playful behaviors (e.g., telling jokes, telling stories, having a good sense of humor) that facilitates the protege's assimilation into the organization

	<p>and not the perception of the mentor's attitude. Playful communication and liking work together to help the protege feel both a   sense of individuality and connectivity to the organization.” (pp. 698, 699)</p> <p>“Previous studies have found that other forms of informal relational communication, such as empathy (Cobb, 2000) and emotional listening (Young &amp; Cates, in press) lead to effective mentoring. Findings from the present study fit well with results from these previous studies suggesting that an ideal mentor is one who engages the protege in a positive, liking relationship that includes empathic listening and playful communication. Peer mentoring programs that train and encourage mentors to develop this type of positive relationship should boost student retention.” (p. 699)</p> <p>“This study represents only one prong of research of playful communication and mentoring: that is the perceptions of the protege To triangulate the results future research could examine playful communication by observing the interaction between mentor and protege. Additionally, future research should compare mentor's and protege's perceptions. The results of this study underscore the critical importance of playful communication and provide insight into how playful communication helps proteges reduce tensions of socialization.” (p. 699)</p>
<p><b>Citation</b> Zevallos, A. L., &amp; Washburn, M. (2014). Creating a culture of student success: The SEEK Scholars Peer Mentoring Program. <i>About Campus</i>, 18(6), 25–29. <a href="http://dx.doi.org/10.1002/abc.21141">http://dx.doi.org/10.1002/abc.21141</a></p> <p><b>Abstract</b> Over the past decades, Vincent Tinto, Edmund Thile, Francis Ianni, and others all link mentoring to better academic performance, improved social adjustment, enhanced academic experiences, and greater rates of degree completion. Even more specifically, Jean E. Rhodes, Renée Spencer, Thomas E. Keller, Belle Liang, and Gil Noam describe three interrelated</p>	<p><b>Conclusions</b> “In this article, we focus on the potential of peer mentoring to bring positive outcomes for students in an educational opportunity program. We describe our peer mentoring model and assessment tools, and we present data and findings that speak to the impact of our program and its successes.” (p. 25)</p> <p>“Our own Search for Education Elevation and Knowledge (SEEK) Program is an educational opportunity program that provides access to higher education to high-potential, low-income students who might not otherwise attend college. This effort is intended to increase the level of education, social capital, and workforce expertise of underserved students. Our SEEK program provides tutoring, supplemental instruction, counseling, and an enhanced financial aid package to approximately 840 students. Our SEEK Scholars program is an educational initiative we created to retain, reward, and enrich our high-achieving students. To qualify as a SEEK Scholar, students must have a GPA of 3.2 and 24 credits. The Peer Mentors program resides in the Scholars program and was designed to provide a platform for upper-division SEEK Scholars to formally interact with first-year students and model positive academic behaviors. SEEK Scholars must complete four semesters of coursework at City College of New York and a two-day training to become mentors. We currently have 72 SEEK Scholars and 23 trained mentors.” (p. 26)</p>



processes through which the mentoring relationship has a positive impact on the mentor and mentee. They found that mentoring has a powerful positive impact by: (1) enhancing students' social relationships and emotional well-being; (2) improving their skills through instruction and conversations; and (3) promoting positive identity development through serving as role models. Across college campuses, many learners attribute their abilities to overcome academic and personal challenges and improve their self-esteem to having had a mentor. There are a myriad of peer mentoring programs in place across college and university campuses; in fact, Ros Hill and Peter Reddy's 2007 study indicates that peer mentors help facilitate first-year students' transition to college by offering "practical, academic, and personal support" (p. 103). On the authors' own campus at City College of New York, CUNY, they utilize a peer mentoring model that targets underserved and first-generation college students. They based their program on findings like that of E. Gordon Gee, who described in his article "An Investment in Student Diversity" that in academic settings, mentoring can be a critical retention and enrichment strategy for all-- but especially for underserved students. In this article, the authors focus on the potential of peer mentoring to bring positive outcomes for students in an

“Our six-hour training engages students in self reflection and skills development that prepares them to be mentors. Through interactive exercises, they build skills such as listening, asking open-ended questions to solicit critical information, and speaking to a group about strategies for academic success. They are also introduced to principles from Skip Downing’s On Course, the text used in our college readiness course for first-year students. Mentors reflect on their own approaches to coping with academic and personal challenges and identify skills that they possess and can teach to students. “ (p. 26)

“Mentors begin serving as mentors in our summer program and continue in our fall college readiness course and spring workshop series. These programs are designed to assist students throughout their first year and to help them become acquainted with the expectations and culture of college. In these courses, they learn time management and study skills and become familiar with resources, policies, and degree requirements. Mentors play a key role by leading the students on campus tours | and preparing brief presentations on topics like choosing a major and getting involved.” (pp. 27-28)

“The focus-group questions required mentors to reflect on the training, their role as mentors, and their own learning and personal growth. We asked students to identify what they did as mentors that they felt good about and to discuss the challenges that they encountered in their new role. We also asked them what they believed they have gained from participating in the training and whether they were applying what they have learned in their personal lives. We learned that mentors perceived themselves as effective and felt more confident in their new role as a result of the training. They identified sharing their academic experiences and personal challenges as something that they felt good about in their work as mentors and further indicated that revealing personal challenges helped them to connect with students. For example, one student said, ‘Coming from a student’s point of view I was able to help them out. So it goes beyond sharing your experiences, also listening to what they have to say, letting them know that I’ve been through this, I’ve been in a similar situation, you’re not alone.’” (p. 28)

“Mentors reported that the training and work with students helped them develop a sense of professionalism that they felt was needed when interacting with students, and also with faculty. Mentors stated that talking to students about their own academic experiences and personal challenges in front of the classroom made them feel like leaders. They identified the open-ended questions vs. closed questions training activity as having helped them to improve their communication skills. One of our mentors said: ‘Even though you are a mentor, you have to conduct yourself in a certain way. And it’s important because you are working with the professor and even though you are not on their



educational opportunity program. They describe their peer mentoring model and assessment tools, and they present data and findings that speak to the impact of their program and its successes.

**Article Link**

<https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1027296&site=eds-live>

level, you want to conduct yourself similar to the way they conduct themselves. You develop a sense of professionalism.” (p. 28)

“This survey was designed to capture what first year students find useful about having a mentor in class. Survey responses indicated that mentors offered helpful advice about what to expect in college and provided insight into college life by discussing strategies for academic success. We learned that students connected | with mentors who shared personal experiences and that connecting with their mentors helped them feel connected to the institution. We also found that in some cases mentors played a key role in helping students feel proud of their educational opportunity program status by talking to them about the mission and the benefits associated with the program. This suggests that mentors have the potential to reduce the stigma associated with underserved students. In general, first-year students reported having a better outlook on their college experience, understanding where to go for help, and being able to better cope with the demands of college as a result of having a mentor. They also shared that mentors inspired them to work hard and earn high grades so they, too, can become mentors. For example, students said that mentors ‘inspired students to learn more and to be a good student,’ ‘provided a positive view about the college experience,’ and ‘shared useful advice regarding selecting and registering for courses.’” (pp. 28-29)

“We have found that mentoring is beneficial for both the mentor and the mentee. The experience of having a peer mentor spurs motivation and enhances academic skills. Our first-year students learn how to navigate the college environment with the help of their mentors. And interestingly, perhaps the greatest benefit is to the mentors themselves. Our findings suggest that mentors are building professional skills and gaining confidence by identifying and sharing their academic skills. In their role as mentors, they begin to see themselves as capable leaders and professionals. This is an essential shift for mentors who are upper-division students about to enter the workforce or pursue graduate studies.

Our model allows us to reach a large number of students with a relatively small number of mentors and does not require a sizeable budget or a great deal of supervision. Because mentors work directly with counselors in the classroom, supervision is built into the work of preparing for class. Having a peer mentoring program has been a rewarding and enriching experience for all. First-year students are better able to adjust to college life, peer mentors have blossomed into leaders, and program advisors get to observe the impact of mentoring on the academic and personal growth of students. Everyone grows!” (p. 29)

## Impact on Mentees: Trade Publication Articles

<p><b>Citation</b> Female peer mentors help retain college women in engineering. (2017). <i>Education Digest</i>, 86(4), 30–32.</p> <p><b>Abstract</b> The article offers information on study by social psychologist Nilanjana Dasgupta and her Ph.D. student on confidence in women engineering students who were mentored by female mentors. Topics discussed include dropout rate for women students with male mentors were more compared to female mentors; number of women in engineering was notable among science, technology, engineering, and mathematics; and male scientist could play important role as advisors and career sponsors.</p> <p><b>Article Link</b></p>	<p><b>Conclusions</b> “A new study by social psychologist Nilanjana Dasgupta and her Ph.D. student Tara C. Dennehy at the University of Massachusetts Amherst found that early in college, young women in engineering majors felt more confident about their ability, a greater sense of belonging in engineering, more motivated and less anxious if they had a female—not male—peer mentor. At the end of the first college year, 100% of women students mentored by advanced female peers were still in engineering majors, Dasgupta says. ‘That number is spectacular because the first year of college is typically the time of greatest attrition from STEM majors, but none of the women with female mentors dropped out.’” (p. 30)</p> <p>“Further, results of this National Science Foundation funded study show that having a female mentor maintained young women’s aspirations to pursue engineering careers by protecting their belonging and confidence. Both were associated with higher retention in engineering majors. The benefits of mentoring lasted for two years, well after the intervention ended, during the window of highest attrition from STEM majors...Dasgupta explains, ‘This same-gender intervention didn’t increase belonging, confidence, or motivation, but it stabilized these reactions and kept them from plummeting in an environment where women students are a tiny minority.’ Study controls—women with no peer mentor—showed sharp declines in feelings of belonging in engineering, confidence in ability, motivation, and interest in pursuing advanced engineering degrees. Having a female mentor preserved all of these.” (p. 31)</p> <p>“Also interesting, the researchers say, is that women students’ first-year grades were not associated with retention in engineering majors. The assumption is that students who leave a major are doing poorly or lack skills, Dasgupta notes. But the researchers found that in the first year of college, women’s performance in engineering and related classes was not at all correlated with retention in the</p>
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<https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=tfh&AN=125896865&site=eds-live>

major. ‘What was correlated with retention were their feelings of belonging and confidence,’ she says. ‘Women who felt that they fit into engineering and felt confident about their ability persisted in these majors.’ The authors say results support the Stereotype Inoculation Model, which predicts that, like a vaccine that protects against bacteria, exposure to successful own-group peers serves as a ‘social vaccine’ to inoculate one against noxious stereotypes. This is especially effective during developmental transitions when individuals experience self doubt and uncertainty.” (p. 31)

“The researchers began the study in 2011 and have recruited 150 incoming female engineering students over four consecutive years...The researchers randomly assigned participants to a female or male mentor who | was an advanced student in the same major, or no mentor.” (pp. 31-32)

“Trained mentors met with participants once a month for one academic year. Dasgupta and Dennehy assessed participants’ experiences several times during the mentoring year and one year post-intervention. They are now following participants until one year post-graduation using the same survey to assess belonging, confidence, motivation, anxieties, retention in engineering majors, and actual career pursuit.” (p. 32)

“Dennehy notes that participants rated male and female mentors as equally conscientious, supportive, and available, yet women students assigned female peer mentors experienced large benefits, while those assigned male peer mentors looked about the same as controls with no mentors. ‘A key takeaway is that in the transition to college, when young women take classes where they become aware of being a tiny numeric minority, self doubt may take hold. It is in those critical transitions when female peer mentors are most effective,’ Dasgupta adds.” (p. 32)

“The authors point out that while female peer mentors had significantly more desirable effects on first-year women in engineering, ‘this does not mean male mentors are unimportant. We expect that female mentors’ support will become less critical as women move beyond college transition, at which point male and female mentors may become equally effective.’ Further, ‘male faculty who are scientists and engineers play important roles as advisors and career sponsors,’ in women’s careers, they note.” (p. 32)

“The researchers say these findings open the door to testing how generalizable the results are to students in other STEM fields. They also suggest similar effects may extend beyond gender to other underrepresented groups in STEM such as African-American and Latino students and first-generation college students. Dasgupta says, ‘Now that we know this own-group peer mentoring is so effective, I

	<p>would like to leverage these findings to institutionalize the intervention. I'd like to take this evidence based best practice and make it the normal part of what we do to recruit and retain underrepresented students in STEM fields broadly. This is now a field-tested remedy that demonstrably grows the pipeline of underrepresented students in STEM.” (p. 32)</p>
<p><b>Citation</b> Plaskett, S., Bali, D., Nakkula, M. J., &amp; Harris, J. (2018). Peer mentoring to support first-generation <i>low-income college students</i>. <i>Phi Delta Kappan</i>, 99(7), 47–51. <a href="https://doi.org/10.1177/0031721718767861">https://doi.org/10.1177/0031721718767861</a></p> <p><b>Abstract</b> Transitioning from high school to college can be a formidable challenge, especially for students who are the first in their family to attend college (first-generation) and/or are from low-income backgrounds. The authors’ qualitative investigation of a college mentoring program illuminates the potential value of relatable peer mentors in helping these students get off to a good start.</p> <p><b>Article Link</b> <a href="https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&amp;db=tfh&amp;AN=128733194&amp;site=eds-live">https://ezproxy.uvu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&amp;db=tfh&amp;AN=128733194&amp;site=eds-live</a></p>	<p><b>Conclusions</b> “In a recent study, we examined a program that connects incoming students with mentors from areas similar to those within the major city from which the mentees matriculate. Mentors and mentees were selected on the basis of being from high-poverty school districts in a large urban center graduating predominantly FGLI college students who are thus at heightened risk for dropping out of college. Pairs were encouraged to meet weekly, and the average pair met seven times in 2016-17. Half the mentors met an average of 12 times and half met an average of only twice. The program provided lists of potential topics to discuss and offered supervision from a half-time coordinator. Mentor oversight consisted of a multiple-day training retreat before the school year, regular supervision (which varied in frequency across sites), and a handful of training sessions (on time management, financial planning, etc.).” (p. 48)</p> <p>“Consistent with previous research on assessing match quality (Nakkula &amp; Harris, 2005), we focused on the balance between instrumentality (the logistical, academic, and social-emotional needs that mentors help mentees to meet) and relationality (the quality of the mentoring relationship itself). We found that mentoring relationships were capable of producing a variety of instrumental benefits for the incoming students — for example, mentors helped them apply for scholarships and other forms of financial aid, helped them select classes and strengthen their study skills, and helped them make friends and connect with people and organizations on campus. However, mentees saw the greatest instrumental benefits when they had a strong relationship with their mentor (e.g., they developed shared empathy, trust, respect, and closeness). Indeed, we found that the best matches integrated these two factors, in an approach we call relational instrumentality. That is, the incoming students were most successful when their mentors didn’t just help them meet their immediate needs but also bonded with them personally.” (p. 48)</p> <p>“In the program we studied, relational instrumentality appears to be a key characteristic of matches that effectively supported first-generation students’ transition from high school to college. Mentees Tracey and Ezra spoke directly to that dynamic, praising both the logistical support their mentors gave them and the quality of their personal relationship:</p>

TRACEY: It's helpful on a personal level because these are your peers that are a year or two or three older that can still connect with you and help you make the transition coming from home in high school in a completely different environment, and help you get accustomed to this college campus and tell you about scholarships, financial aid, different organizations, different programs that can benefit you and get you on your feet.

EZRA: Sometimes I forget that she's my mentor because she's really cool. Other than just our once a week meeting I see her a lot. She's helped me with financial aid workshop. She referenced me to somebody in the financial aid office and he helped me with financial aid things." (p. 49)

"The program initially emphasized relational compatibility, specifically personality, in their matchmaking (an approach consistent with generally accepted best practice in youth mentoring). However, the program eventually shifted to include an emphasis on instrumental compatibility, especially related to mentees' academic focus. This tends to be important to many mentees, as one, Kayla, put it: It would really help if I could get someone that's like right in my major...that knows how to make your way. You need someone who has the experience so they could tell you like certain pitfalls to avoid and things like that." (p. 50)

"Once a pair has begun meeting, engaging in shared relational activities can enhance the mentee's inclination to accept or even seek support, thereby bolstering the match's instrumentality. Shauna, a mentee in our program, described it this way: When we first met that's when it seemed more 'mentory.' I didn't know her and she didn't know me so it was like trying to get to know each other and, you know, go by the rules of the program. But as the first semester went on she would text me and stuff and let me know about different programs or events on campus and we would go to them together. Just different events being put on by organizations. Just go to the gym together, do yoga. And we volunteered together too. Other than just our once a week meeting I see her a lot. She's helped me with financial aid things, she introduced me to one of her friends in the engineering major, and one of the girls she introduced me to, we have a class together so it's kinda cool." (p. 50)

"In keeping with the program's primary intent, mentees tended to be strongly focused on persisting and succeeding at school. However, our interviews indicated that the best outcomes for mentees occurred in matches characterized by high levels of trust, a trait implicated in psychosocial support (Terrion & Leonard, 2007)." (p. 50)

“The matches in the program tended to start off with a strong basis for trust because the mentors and mentees often come from similar backgrounds. And that trust informed the mentees’ willingness to discuss their needs and the instrumental support the mentors provided in response.” (p. 50)

“Our data repeatedly highlighted the importance of mentors keeping an even balance between the roles of older peer and friend; the mentor should not seem like an authority figure. As a guiding principle for engaging mentees, mentors should seek to empower and support already growing students, not fill ‘empty vessels.’ Mentors can share judiciously about themselves — focusing on lighthearted stories or lessons from their own past — to bolster mentees’ comfort with their own sharing, but the mentors should take the lead in determining what to talk about and how much to share. Consider the following comment by Aaliyah, a mentee who highlighted how her mentor successfully struck this delicate balance: We were talking about academics. Every once a while, we might tell a story from [our lives] that’s related to our conversations. And, you know, we laugh all day. One time, we were...just talking about being from Philadelphia ...we just let our conversation flow very easily when we were talking. But [our conversations] stay . . . on the point even if sometimes we sidetrack.” (p. 50)

“No matter how compatible a match was or how well prepared the mentor was, reciprocal commitment appeared important in building strong mentoring relationships. The first level of commitment included communicating about scheduling meetings, showing up for them, and being available.” (p. 51)

“For mentees, commitment involved not just making time, but also asking questions that draw on the mentor’s ability to be a resource. Mentors expressed that engaged mentees were often the ones they could give more information to, stressing the importance of mentees being advocates for themselves.” (p. 52)

## Impact on Mentors: Peer Reviewed Articles

### Citation

Abrahamson, E. D., Puzzar, C., Ferro, M. S., & Bailey, S. (2019). Peer mentors' experiences and perceptions of mentoring in undergraduate health and sports science programmes. *Journal of Pedagogical Research*, 3(2), 21–37.

### Abstract

Peer mentoring schemes are increasingly visible within professional practice, and in recent years, universities have integrated mentoring across undergraduate programmes. In order to provide the appropriate support to peer mentors and contribute to the future development and success of peer-mentoring schemes, it is necessary to investigate not only the benefits afforded to mentees, but also peer mentors' perceptions of their experiences. This small-scale qualitative study was conducted with participants who were recruited from the peer-mentoring scheme across two professional undergraduate health programmes: Podiatry and Sports Therapy. Semi-structured interviews were used to explore the early experiences and expectations of being a mentor, mentorship activities, reasons and personal narratives for becoming a mentor, and the effectiveness of the training they received. Findings suggest that constructive and destructive friction exist between how

### Conclusions

“Whilst the majority of research on peer mentoring has examined the impact of mentoring programmes on mentors and mentees alike, there appears to be limited research that has fully explored how mentors perceive their role and experiences during mentoring. The present small-scale study investigated the experiences of student mentors in two mentorship programmes that took place at the University of East London (UEL), School of Health, Sports and Bioscience.” (p. 22)

“The peer-mentoring scheme at the University of East London (UEL) was introduced into the Health, Sports and Biosciences Undergraduate Programmes in September 2013, beginning with Podiatry and later extending to the Sports Therapy Programme, where first author of this article has been a lecturer for 7 years. The UEL scheme is divided into two key schemes: 1) peer and 2) Peer Assisted Student Support (PASS) mentoring. The first involves a pastoral facilitative mentoring approach where mentors meet with their mentees regularly to offer support and encouragement. Mentors can choose to meet the mentees individually or within small groups of 4-5 mentees. The second requires the mentor to deliver a small revision session to a group of mentees following a lecture or academic activity. This study focuses on both types of group mentorship schemes.” (p. 25)

“A purposive sample of 12 participants was recruited across two professional health programmes: Podiatry and Sports Therapy. All 12 participants had previous experience of mentorship as first year mentees...Semi-structured interviews with open-ended questions were designed to explore the early experiences and expectations of being a mentor, mentorship activities, personal narratives for becoming a mentor and training received. During the semi-structured interviews, held at two critical points within the academic year, namely the start of the year and midway through the second semester, participants were asked to describe their mentorship experiences by reflecting upon their opportunities and obstacles.” (p. 26)

“The first research question is concerned with how the mentors perceived their roles within the mentorship scheme. The findings suggest that while some mentors joined the scheme to enhance their curricula vitae, several indicated the desire to provide new students in their programmes with what they believe is the necessary support and guidance for navigating the exigencies of being a first-year student. Because the mentors in this scheme are former mentees, they perceived their role as essential to helping others achieve a sense of belongingness and academic success, even when it meant being a different kind of mentor than what they had experienced. This understanding of the importance of

mentors perceive their mentorship role and the strategies and skills they develop and use during their mentorship experiences. The study concludes with recommendations for new mentors and implementation of mentorship schemes within the widening population context of higher education.

**Limitations**

“The researchers acknowledge that this study is limited to two cohorts of mentors selected from two programmes within the same school with similar curriculum and context. They do not know whether these findings could be extrapolated to reflect a wider group mentor experience.” (p. 35)

**Article Link**

<https://eric.ed.gov/?id=ED597951>

their mentorship roles during the first year of university study is supported by prior research (Chow & Healey, 2008; Kane, Chalcraft & Volpe, 2014; Scanlon, Rowling, & Weber, 2007), that found a first-year student’s ability to connect to the university by developing their own sense of identity and membership in the campus community has the potential to affect their overall academic success. The mentors in this study reflected upon their own experiences as mentees, both positive and negative, and the need to facilitate a successful transition to university study. For widening participation first-year students, this can be a significant and challenging process fraught with feelings of isolation and uncertainty (Heirdsfield et al., 2008).” (p. 33)

“The data also showed that there was often a conflict, or friction between the mentors’ perceived roles and their interactional experiences with their mentees. In some cases this friction lead to personal growth and learning, in areas such as communication, beyond what they may have been able to develop and use on their own. In other circumstances, the dissonance between the mentors’ expectations and the realities of their roles was cause for frustration that in one case, led to an early departure from the scheme. As described by Vermunt and Verloop (1999), the outcomes of friction, or the lack of congruence between an expected learning experience and the actual experience, include attaining higher development and use of skills and strategies when the friction is constructive and a decrease in the development of skills and potential growth when friction is destructive in nature. In this study, the friction between the mentors’ expected roles and the realities of being a mentor is a significant finding because the data show that some form of | friction emerged across several of the themes identified. In cases of constructive friction, the mentors noted they deepened their understanding of their coursework, increased their communication skills, or challenged their perception of what student support is and should do. However, there were also instances where destructive friction led to the mentors feeling isolated and disempowered. In one instance, it led to a mentor exiting the programme.” (pp. 33-34)

“The second research question is related to identifying the challenges the mentors encountered and how they were able to overcome them. It became apparent that one challenge was in understanding the remit of the peer mentorship scheme itself. For one mentor in the study, the scheme was not ‘flexible’ enough so that peer mentors can provide additional support to first year students. For other mentors the challenge began early on in the mentorship role due to a mismatch of ages and cultures between mentees and mentors. In both cases the mentors struggled to develop a meaningful, two-way relationship with their mentees, noting reasons such as not having similar academic goals, personal aspirations or general values related to study ethics and communication. These findings are important considerations for the successful implementation of peer mentorship programmes in terms of whether



to formally match mentees with mentors who share similar age, gender, and cultural backgrounds (Sambunjak et al, 2010) or to build additional flexibility into the delivery of peer mentorship schemes from the outset (Rolfe-Flett, 2000). For some mentors frustration related to these challenges remained throughout their experiences. One mentor openly expressed feeling undervalued, particularly when mentees did not attend a scheduled session, questioning the mentees' commitment to their own studies and academic success. In this instance, the mentor was not able to determine why mentees failed to attend planned sessions, thus limiting their own satisfaction with the programme and further developing their own mentorship skills and strategies. Aligned with the research (Fox & Stevenson, 2006; Potter, 1997) one of the goals of these two mentorship schemes involved with this study was to enable benefits for both the mentors and mentees alike by helping them develop transferable skills that are valued in the healthcare profession. These skills included, but were not limited to, interpersonal communication, critical thinking, and problem solving. Although the schemes in this study fell short of achieving this goal with some of the mentors, others were able to overcome their challenges and recognized their own personal growth through self-reflection.” (p. 34)

“It is important to remember that while the first-year mentees were transitioning towards a new identity and membership in the university community, mentors were also undergoing a transformation from being only a student to being a student and a mentor. The data showed that the mentors were acutely aware of this transition, noting the challenges they encountered when attempting to develop trust and openness in the mentor-mentee relationship. This was particularly evident in their comments about oral and written communication strategies. Specifically, one participant acknowledged their own improved communication skills in order to ‘dig to find out how they [mentees] are doing and helping them belong.’ Another mentor recognised the need to start with more formal communication in the beginning and to be mindful of any age differences in order to communicate appropriately. The success of some of the mentors and the continued frustration by others can be explained by the work of Vermut and Verloop (1999), who note different outcomes for students who experience constructive friction during a learning activity, such as those that occurred within the mentorship role. While a few of the mentors were able to demonstrate a high degree of self-regulation and further develop and implement transferable skills without guidance from a teacher or trainer, others were only able to partially implement those skills on their own. In a few cases, the mentors in this research were not able to master a particular skill enough to benefit from the friction resulting from challenges they encountered. As peer mentorship schemes progress from initial stages, it is imperative for the tutors or coordinators to recognise that for some peer mentors, achieving a balance between self-regulation and guidance during learning activities (i.e. constructive friction during mentoring experiences), is more of a challenge and may require additional intermediary support (Ten et al., 2004).” (p. 34)

	<p>“The final research question sought to answer the effectiveness of the training the mentors received. Findings indicate that when tasked with initial interactions with their mentees, or when faced with challenging situations, the mentors relied on their training. This was particularly evident when they needed to resolve complex issues that surfaced during their work with their mentees. Being able to address immediate concerns and implement viable solutions in real-time can be challenging and stressful for peer mentors, who perceive their role as an important contribution to their mentees overall academic success. As one of the participants noted, the training helped set boundaries for the kind of guidance mentors were expected to give in each scheme (Peer and PASS). As a result, they had more confidence in determining how best to provide pastoral care, as well as academic support to their mentees. In post 1992 universities, where widening participation has resulted in larger populations of non-traditional, mature students, having confident, well-trained peer mentors can be critical to whether these students can successfully make the transition and progress towards graduation. The research by Drew et al. (2000) concluded that students are more likely to seek advice from a peer, especially in the first year. New students who are not able to relate to their lecturers on a more personal level are more reluctant to ask them for help. Therefore, peer mentorship schemes that operate within the same academic programme and that match mentees and mentors based on similar demographics are recommended (Drew et al, 2006; Sambunjak, et al, 2010).” (p. 35)</p> <p>“Understanding mentors' expectations is necessary in appraising the success of a mentorship programme. Mentors often interact with new students and assist with bridging the transition gap into higher education. This interaction demands time and a commitment and if expectations are maligned or mismanaged the consequences could be devastating for both mentor and mentee (Le Cornu, 2005). This raises important pedagogic as well as philosophical questions around mentoring relationships and embedded, as well as perceived benefits, of mentoring. It further offers critique around whether significant differentiation in mentoring training--i.e. content and application needs--should be consider against level of learning. This is supported by the idea of constructive friction (Vermunt &amp; Verloop, 1999) that recognizes the delicate balance within the scheme between guided support and self-regulatory learning. Findings from this study support the need to embed a theoretical perspective of learning theories relevant to mentoring into the training mentors receive. This has the potential to better prepare mentors for their roles, dispel myths about the mentorship process, support and challenge the complexities within a mentorship programme, and help mentors contribute positively to the first year learning experience.” (p. 35)</p>
<p><b>Citation</b></p>	<p><b>Conclusions</b></p>

Beltman, S., Helker, K., & Fischer, S. (2019). "I really enjoy it": Emotional engagement of university peer mentors. *International Journal of Emotional Education*, 11(2), 50–70.

### Abstract

Peer mentoring programs are commonly used to facilitate the transition of new students into higher education settings. Peer mentors' experiences and emotions during mentoring are important but under-researched. We report exploratory work to address this gap in a two-phase study using a grounded theory approach. In Phase 1 mentors in an Australian university responded to online (n=35) or face-to-face (n=10) questions about their emotions during a peer mentor program. Emotions were found to be primarily positive, mentors varied in the extent to which they express emotions, and emotions relating to different time points were evident. In Phase 2, we examined temporal dimensions of emotions in more depth with peer mentors in a German university and added anticipated future emotions to existing categories. Connections between mentors' emotions and their own early experiences at university were explored, with another category of recalled prior emotions being added. Our findings are consistent with previous research regarding the positive and negative emotional aspects of being a

"There are limitations in research on mentoring programs (Gershenfeld, 2014). For example, while mentoring is reciprocal (Heirdsfield, Walker, Walsh, & Wilss, 2008), research related to peer mentors has been less prevalent (Elliott et al., 2011). This paper addresses this gap by presenting research on the emotions of peer mentors in first year university programs...The aim is to understand the role that emotions play from the perspective of mentors as they engage in university peer mentoring programs." (p. 51)

"In Phase 1, we explored university peer mentor emotions during a peer mentoring program. This timing should enable peer mentors to share emotions they were currently experiencing and report on their expectations for the rest of the semester, hopefully tapping into current and prospective emotions, rather than recalled, retrospective emotions as examined in previous studies (Beltman & Schaeben, 2012)." (p. 52)

"In a large Australian university every new student (freshman) is offered a peer mentor who has successfully completed at least one year in the same course. New students could decide not to participate in the program and withdraw at any point. Peer mentors need to apply and participate in a centrally-organised one-day training. Mentors meet with their group of 10-15 mentees and help them in organisational, social, and orientation matters, such as showing them around campus. Peer mentors are expected to have contact with their mentees at least weekly by email plus ideally face-to-face, with individuals or groups, throughout the semester. Mentors receive recognition for their participation through their academic transcript and an honorarium payment. Phase 1 participants were recruited during the pre-semester training. From the 87 interested mentors, 10 (female: n=9, male: n=1) were randomly chosen to participate in the face-to-face interviews and were 18-34 years old ( $\bar{x}$ = 25.2 years). The remaining volunteers were invited to submit online responses to the same interview questions, and 35 participants completed these (female: n=27, male: n=8). Online participants were 18-51 years old ( $\bar{x}$ = 23.7 years). Surveys and interviews were completed in the first four weeks of semester to provide an insight into mentors' emotions at the beginning of the program." (p. 54)

"In Phase 2, building on Phase 1, we explicitly examined emotions over multiple time points. We aimed to explore which emotions peer mentors in a first year university peer mentoring program experienced at the beginning (Time 1) and end (Time 2) of the mentoring period. Recollections of mentors' own past as beginning students and their expectations for their mentoring and mentees were included...In this case we were interested in further exploring emotions over time in a typical

peer mentor and further contribute to the understanding of the complexity of emotions in mentoring, specifically peer mentoring in higher education settings.

### Limitations

“In the reported research, interviews and on-line questions relied on self-reports of a relatively small sample of peer mentors. As indicated by Saldaña (2009), participants may experience difficulties in labelling and expressing their emotions. Interview participants could have felt restricted in their responses as they were asked to reveal their feelings. Participants may have concealed or euphemised certain emotions.” (p. 63)

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university peer mentoring program, in order to test or validate the theory generated from Phase 1, a typical component of grounded theory research (Creswell, 2005).” (p. 58)

“With similar aims to the Phase 1 Australian university, a peer-mentoring program was introduced in 2014 at a German technical university. This program was only for 300 new students entering teacher education and was developed by teacher education staff familiar with the Phase 1 program. Students are allocated to the most suitable peer mentors based on their specific subject of study. During the semester, mentors must participate in weekly meetings with the central organisers and are expected to have contact with their | mentees via email or face-to-face. Peer mentors can organise meetings independently with their mentees, but regular workshops on specific relevant themes (e.g., exam preparation) are offered at set points during semester. Peer mentors are paid as student assistants with a small contract to cover expenses. Despite all mentees being allocated to a specific mentor at the beginning of the semester, mentoring is a non compulsory offering to students to facilitate the transition to university.” (pp. 58-59)

“Overall, our findings were consistent with literature that indicates the variety of positive emotions experienced by mentors (e.g., Beltman & Schaeben, 2012). Mentors enjoyed interacting with their mentees and sharing their expertise (Heirdsfield et al., 2008), and found ‘pleasure in their relationship’ with their mentees (Bullough & Draper, 2004, p. 284). Ehrich, Hansford and Tennent (2004), also reported that mentors derive ‘personal satisfaction, reward, or growth’ (p. 523) from their participation in a mentoring program and Riebschleger and Cross (2011) that mentors were satisfied by being a part of their mentees’ development. It could be that mentors who agreed to participate in the research felt a stronger alignment with the programs’ aims as suggested by Collings et al. (2016) and so were more positive than other mentors might have been.” (p. 62)

“Findings were also consistent with research about negative emotions. Terrion and Phillion (2008) said that mentors’ negative emotions, such as disappointment and frustration occur, for example, when they had not met agreed upon goals. Mentee success or failure can be taken personally and mentors reported that poor mentee response evoked feelings of frustration and feelings that they had not fulfilled their role (Bullough & Draper, 2004). Despite similar negative emotions, most of the mentors in the current studies said they would be a mentor again. When ongoing support and training for mentors are available, the outcomes are more beneficial (Martin & Sifers, 2012). Training needs to ensure that mentors have realistic expectations for, and know the boundaries of, their role, and that mentors know how to access support. It seems likely that the | positive emotions experienced by

mentors in the current programs were linked to the programs' initial training and ongoing support.” (pp. 62-23)

“The Phase 2 interviews showed the importance of peer mentors' own experiences and recalled emotions in their motivation to become a mentor and in shaping their emotional responses to their mentees. For example, some peer mentors recalled negative prior experiences of their own beginning university experiences when they would have appreciated assistance. Levine, Lench, and Safer (2009) suggested that recalled emotions can be exaggerated as individuals remember a peak emotional intensity. Mentors in this study did tend to think that other first years were in the same position and would appreciate and use assistance offered, and so it was difficult to understand when they did not appear to be needed. Pekrun et al. (2011) discussed the importance of the value placed on an activity and its controllability. Peer mentors in the programs examined certainly seemed to value the activity of mentoring, and were also able to understand that they did not have control over the mentee actions. The reciprocal perceptions of mentees would be a useful focus of future research as, for example, there could have been other mentors who were less involved and motivated and perhaps experienced more negative emotions, impacting negatively on the mentees.” (p. 63)

“Phase 2 explored the multiple time points indicated in Figure 2. The dimensions contain similar concepts to those discussed by Pekrun et al. (2011). Specifically, current emotions about the present are similar to activity emotions, current emotions about the future are similar to prospective outcome emotions, and current emotions about the past are similar to retrospective outcome emotions. The theoretical contribution of this paper is the inclusion of recalled prior emotions and anticipated future emotions into this time frame. The interviews showed that recalled prior emotions played a crucial part in the peer mentors' motivation for, and expectations about, the role. Previous work points to the importance of expectations in mentoring (e.g., Collings et al., 2016) and pre-mentoring experiences play a part. Anticipated future emotions were also related to beliefs about future experiences and a desire to be a mentor again. These additional concepts align with the reciprocal connections between emotions and their antecedents and outcomes (Pekrun et al., 2011). These insights are potentially useful for program managers in understanding initial and repeat mentor motivations and the value of recruiting mentors returning for the experience.” (p. 63)

“The findings of this exploratory research are consistent with recent research that mentoring is beneficial for mentors, with their experience being a positive emotional one. The findings highlight the role of program developers in providing specific training and support to prepare intrinsically motivated mentors for the potential factors associated with negative emotions. The findings also point

	to the complexity and reciprocity of emotions over a range of time points. Additionally, these findings have contributed to a relatively sparse area of research and provided some suggestions for future research.” (p. 64)
<p><b>Citation</b> Bunting, B., &amp; Williams, D. (2017). Stories of transformation: Using personal narrative to explore transformative experience among undergraduate peer mentors. <i>Mentoring &amp; Tutoring: Partnership in Learning</i>, 25(2), 166–184. <a href="http://dx.doi.org/10.1080/13611267.2017.1327691">http://dx.doi.org/10.1080/13611267.2017.1327691</a></p> <p><b>Abstract</b> While past researchers suggest undergraduate peer mentors (PMs) benefit from mentoring their peers, this experience is rarely associated with transformative learning. Using narrative analysis of authentic mentoring stories, we explored how particular types of mentoring experiences contribute to transformative learning for PMs of first-year university students. In this study, transformation was more likely when PMs engaged in meaningful routines and everyday practices; exercised purposeful "pretending" in unfamiliar aspects of their role; embraced challenge and surprise; regularly reflected on experiences; and were mentored by supportive faculty and staff. Findings have implications for PM</p>	<p><b>Conclusions</b> “While the primary purpose of mentoring is to benefit mentees, PMs [peer mentors] also experience positive outcomes (Keup, 2016; Shook &amp; Keup, 2012). However, there is a need to explore the elements of PM experience that facilitate transformative learning (Kenedy &amp; Skipper, 2012). In our study, we respond to this call by examining PMs’ narratives describing their development, and then offering theory-based interpretation of these richly described experiences.” (p. 167)</p> <p>“Each of the PMs in our study had been hired to work in a first-year mentoring program at a large, private, faith-based institution in the western United States. Peer mentors in the program worked 15–20 h per week and were responsible for   supporting groups of approximately 60 first-year students who were enrolled in a cluster of linked courses. Mentors’ responsibilities included meeting individually with students two to three times per semester; attending learning community classes; identifying and supporting struggling students; teaching and modeling effective academic habits; and connecting students with key campus resources.” (pp. 128-169)</p> <p>“In alignment with our choice to ground our study in narrative inquiry practice and its core assumption that narrative provides insight into experience (Clandinin &amp; Connelly, 2000), we invited these 12 participants to, first, create a timeline of their critical peer mentoring incidents (Angelides, 2001). We defined critical incidents   as those events that participants viewed as most significant in their growth as PMs. These timelines were then used as prompts in subsequent semi-structured interviews.” (pp. 169-170)</p> <p>“In phase two, we used axial coding (Strauss &amp; Corbin, 1990) to refine, condense, and clarify the themes we identified in phase one (Miles &amp; Huberman, 1994; Strauss &amp; Corbin, 1990). We also conducted negative case analyses (Williams, 2011), searching for data that contradicted our developing hypotheses, to further strengthen the validity of the themes that we had uncovered. In phase three, we returned to the interview transcripts and used theoretical sampling (Patton, 2002) to identify those narratives that (a) were most resonant with the themes identified across the data gathered from all 12 participants, (b) represented the elements of transformative learning described by the TL literature, and (c) met Clandinin and Connelly’s criteria for good narrative, (i.e. explanatory quality, invitational quality, authenticity, adequacy, and plausibility) (2000).” (p. 170)</p>

selection and training, as well as program design.

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“In this section, we provide additional information for those participants whose narratives appear in the discussion of our findings (i.e. Kat, Amelia, Brittney, and Robyn). Kat worked as a PM during her last three years before graduating with a degree in early childhood education, including two years as a student supervisor of other PMs...Amelia studied public health during her nearly four years as a PM...Brittney was a PM for three years prior to graduating and taking a job as a high school history teacher and softball coach. During the final year of Brittney’s employment, she worked as an office assistant, answering questions from first year students and their parents, supervising the work of a large group of PMs, and providing training to newly hired PMs. Finally, Robyn was a peer mentor for two years, including one year as a student supervisor.” (p. 171)

“The themes that we uncovered in our analysis include (a) the meaningfulness of everyday experience, (b) pretending as a move toward transformation, (c) unfamiliarity and surprise as catalysts, (d) reflection in transformation, and (e) the value of participating alongside one’s own mentors.” (p. 171)

“Angelides (2001) has suggested that critical incidents are typically routine events that take on significance by promoting reflection and meaning-making for learners. In Kat’s case, participating in required readings and completing everyday training were simultaneously commonplace and critical. While she initially viewed this aspect of her work as unnecessary and monotonous, in working alongside a more experienced PM (Krissy), she realized | reading could be ‘an investment in people’ and a legitimate aspect of her mentoring. Similarly, Amelia commented that ‘doing the readings helped change my perception of what our purpose is [and] what a mentor is.’ Though Kat may not have enjoyed or initially seen the value in completing required readings, and answering phones was not one of the things Amelia or Robyn imagined themselves doing as PMs, these commonplace activities were precursors to transformation. Chambliss (1989) has referred to this phenomenon as the mundanity of excellence, finding that top performers, across a variety of contexts, invest significant time and effort on mundane practices in their field. In short, everyday experiences provided opportunities to participate in the practices of mentoring in legitimate and peripheral ways (Lave & Wenger, 1991), and served as a catalyst for eventual transformation.” (pp. 172-173)

“Early in her experience Kat observed that participating in everyday mentoring activities presented a choice to either fully engage, or to pretend to busily perform daily PM tasks without any sense of investment or meaning. Kat clearly observed the contrast between those PMs who pretended to be PMs, and those like Krissy, who found opportunities for growth in their day-to-day experiences. Her assertion ‘I wanted to get something from this job’ signaled her commitment to genuinely embrace the

learning opportunities in the PM role. Past researchers (Markus & Nurius, 1986) reporting on workplace identity formation have described how one's view of their future possible self can mediate the way they approach new experiences (Markus & Nurius, 1986). For Kat, her initial observations of other PMs provided both a positive possible self—representing who she hoped to become (i.e. an engaged and growth-focused PM)—as well as a possible self she hoped to avoid (i.e. a PM who pretends to be busy). This opening narrative illustrates that being a PM is anything but a certain path to personal transformation. Instead, transformation is possible when (a) PMs choose to engage as full participants, and (b) are provided with an environment that supports transformation.” (p. 173)

“In our second narrative fragment, Kat describes learning from more experienced peers: I was part of a team working on a research project about reflections with Trish, the director. It had only been four months since I was hired and I remember looking around at my peers and feeling a little sheepish because everyone except me seemed to have something to say. That was really intimidating because I hadn't done any research before. | I remember thinking, 'I don't even know what reflections are.' But, when we met as a team, I really loved being a part of it. I realized I knew a lot more about reflection than I thought, and I recognized I had practiced and used it many times. I learned that reflection is all about connections – to things we've learned, to emotions, and to experiences. Everything is connected. My experiences as a mentor connect to the rest of my life. That's why we write reflections – so that we can connect the mentoring experiences we have to the things in our life – because we realize that mentoring will always be a part of our life, I guess. Does that make sense?” (pp. 173-174)

“Similar to Narrative Fragment 1, here Kat describes participating with others in a legitimate community practice (i.e. exploring the value of reflection in mentoring). Although she was not mentoring students, this opportunity invited her to take up new ways of thinking that influenced her experience both within and outside her PM role. Additionally, we hear echoes of the theme of pretending. Her statement “I don't even know what reflections are,” as well as her expressions of feeling intimidated, suggests she viewed herself as an imposter. However, there is an important tension between Kat's efforts to pretend in this instance, and the pretending she observed among her peers in Narrative Fragment 1. In the first narrative, pretending was an evasive strategy employed by PMs unwilling to take up community practices. This type of pretending allowed some PMs to masquerade as full participants, thereby blocking their potential to be transformed. In this case, however, Kat's pretending was a sincere effort to become familiar with the unfamiliar practice of reflection. Rather than pretending in order to avoid growth, Kat was working to construct a new possible self that included the regular practice of reflection. The contrast between Kat's acts of



pretending and those she observed among other PMs highlights the nuanced nature of this theme—pretending can either support or hinder transformation.” (p. 174)

“Understanding that pretending could be a strategy for making the unfamiliar familiar led us to see that grappling with unfamiliarity was also a prominent theme across all our narratives. For example, when faced with the challenge of engaging with students for the first time, Amelia’s response was ‘No, I can’t! Are you kidding me? I’m supposed to mentor students in a class that I’ve never even taken? I don’t even know what I’m doing.’ Participants frequently described how being asked to do unfamiliar things created a space where they could safely falter, make tentative attempts to experiment with unfamiliar mentoring practices, and, ultimately, enact new provisional selves (Ibarra, 1999). Though uncomfortable and often frustrating, when these opportunities to pretend were leveraged by PMs, they became critical steps toward taking up new identities as mentors.” (p. 175)

“For Kat and the other PMs in our study, being invited and expected to engage in unfamiliar practices provided opportunities to be transformed. However, this required them to overcome the uncertainty they felt. Robyn repeatedly referred to this fear of the unfamiliar:  
Mentoring asked me to do scary things...but that was no excuse for not being brave...So I answered the phone in the office for the first time. I talked to my student who had gotten a 50% on a midterm. I sought out a professor who hadn’t answered my emails. I spoke in front of a group of 50 people... Now I know how to stare fear in the face. Sometimes it still wins, but mostly I do.  
Robyn’s bravery and unwillingness to make excuses point to the deliberate choice she made to experiment with new provisional selves, despite the risk of failure. Indeed, her statement, ‘Now I know how to stare fear in the face,’ is representative of how unexpected and challenging mentoring experiences led to a significant shift in the way all of our participants approached future encounters with unfamiliarity. Ultimately, for the PMs in our inquiry, transformation required a willingness to act. While observing more experienced peer mentors and encountering unfamiliar practices invited PMs to envision new possible (Markus & Nurius, 1986) and provisional selves (Ibarra, 1999), it was not until they actively engaged with unfamiliarity and pretended in these new roles that growth became apparent.” (p. 176)

“We found that both formal and informal opportunities to reflect were important in helping PMs understand how being a mentor facilitated transformation. Amelia described how reflecting on the value of her general education experience led to new understanding:  
Doing the readings and reflections about general education really changed me...There were things in my life outside of mentoring that the readings applied to – like, I needed to change my major. So,

having all of these things going on outside, and then in my mentoring work at the same time, changed me to have a better understanding of what a mentor is, why we do certain things, and what an education really means.” (p. 176)

“In describing how this experience impacted her, Amelia frequently refers to how she was ‘changed,’ rather than making simple references to what she ‘learned.’ | Her choice of words underscores how reflecting on unfamiliar ideas positioned her take up a new academic identity. Much like Kat described in her second narrative, Amelia used reflection to make ‘connections’ between the concepts she was learning in her reading and the experiences she was having both in and outside her PM role (e.g. her decision to change her major). The personal growth that Kat, Amelia, and others described in their narratives represents much more than knowledge acquisition or skill development. Though they do not make any explicit references to transformation, their stories suggest that they experienced the learning described by Mezirow in that it was holistic, reflective, integrative, and had significant implications for their future practice (1997).” (pp. 176-177)

“The fifth and final theme of mentor support was present across the narratives of all 12 participants. For example, in Kat’s case, she relied upon the support of her own mentor in navigating the unfamiliarity she encountered as she mentored other PMs. Through her weekly dialogues with Breck [Kat’s supervisor], Kat was invited to take up a reflective stance from which she could evaluate her mentoring practice, consider the potential impact of her actions, and develop confidence in her decisions. Ultimately, the support Kat received from Breck allowed her to see how she could mentor the other PMs for whom she was responsible and leave her attempts to manage behind.” (p. 178)

“Participants in our study frequently related how being mentored by others positioned them to take up a new orientation toward learning. Robyn described it this way: ‘Brent was my mentor. He told me ‘Every day is awkward.’ When I accepted that, things didn’t seem as scary.’ For the PMs in our study, their mentors provided the support needed to face challenges, do unfamiliar things, and then reflect on how they were being transformed. Indeed, across the narratives of all 12 participants, it was evident that being mentored by others helped to leverage the transformative potential of the unfamiliar experiences that PMs encountered, and the subsequent opportunities for reflection and growth that emerged.” (p. 178)

“After having completed her student teaching experience, Kat returned to home to spend the winter break with her family and took back up the practices she had become familiar with as a mentor:

I found myself helping people in my hometown who I knew were going to be freshmen. I just did the same [mentoring] job, but outside of the job. It was kind of fun because I realized ‘This is what I used to do. And, I really like it.’

This brief concluding narrative fragment provides insight into the degree to which Kat was transformed by her experiences as a PM. Though it had been nearly five months since she had finished her tenure as a PM, mentoring habits and practices had become a natural part of her identity and way of being. In contrast to the experiences she described in her first three narratives, she was no longer enacting a provisional role or pretending. Rather, engagement in the practices of mentoring had become familiar, authentic, and tacit—so much so that she did not realize until later that she had been doing ‘the same job, but outside of the job.’ In short, mentoring had become an integral and internalized aspect of the way in which Kat engaged with and participated in the world.” (p. 179)

“We observed this same emerging familiarity across our other participants. As they repeatedly encountered unfamiliarity, persisted in trying on provisional and unfamiliar aspects of their practice, and then worked to refamiliarize themselves in these situations, they seemed to experience tacitization—the familiarity and skill that emerges through sustained engagement with unfamiliar activities (Yanchar et al., 2013). As PMs’ learning became tacit, it extended beyond the boundaries of their mentoring role and began to permeate other aspects of their lives. Kat’s final narrative fragment and her realization that she was “doing the same job, but outside the job” is an exemplar of this phenomenon.” (p. 179)

“The attitudes and practices of mentoring also extended into the lives of other participants. Robyn described how becoming a better listener—a skill that a number of participants identified as critical for success as a PM—became a natural part of how she built relationships across all the domains of her life: ‘Everything with people became easier. Blind dates? No sweat. It’s like meeting a student for the first time. Little shy me made more friends than I could imagine—at work, at school, at church.’ In Amelia’s case, mentoring practices flowed into her volunteer missionary | experiences in the Netherlands. Similarly, Brittney described how her identity as a mentor became intertwined with her life as a middle-school history teacher.” (pp. 179-180)

“Across our participants, we observed underlying themes of becoming, tacitization, and transformation in the narratives they shared about their learning in the PM role. Indeed, being a PM seemed to be a highly impactful experience. As they engaged in the everyday practices of mentoring, confronted unfamiliarity, reflected on their experiences, and lived alongside supportive mentors, our participants did not merely become competent in thinking, speaking, and acting as PMs. Rather, their

	<p>engagement with and involvement in the world at large was transformed as they gave up mentoring as a formal role to be played and, subsequently, took up mentoring as an important aspect of their identity.” (p. 180)</p> <p>“...This study has implications for how program administrators train a variety of peer leaders, including teaching assistants, resident advisors, and peer advisors. While the vast majority of peer leadership programs provide formalized training (Young, 2014), it tends to be both front-loaded and brief. Clearly, initial preparation for student leaders helps prepare them for success in their role. However, this study suggests that their learning is enhanced when they are provided with ongoing development and continued support. Finally, rather than merely providing formal learning activities intended to ‘train’ PMs, administrators should thoughtfully design transformative learning environments that include the elements described by the five themes of transformation introduced here (i.e. everyday practice, growth-focused pretending, unfamiliarity, reflection, and mentor support).” (p. 182)</p>
<p><b>Citation</b> Kiyama, J. M., &amp; Luca, S. G. (2014). Structured opportunities: Exploring the social and academic benefits for peer mentors in Retention Programs. <i>Journal of College Student Retention: Research, Theory &amp; Practice</i>, 15(4), 489–514. <a href="http://dx.doi.org/10.2190/CS.15.4.b">http://dx.doi.org/10.2190/CS.15.4.b</a></p> <p><b>Abstract</b> Informed by the experiences of former peer mentors, this qualitative study examines the structure of opportunity of a university retention program. Extending the concept of social capital, the study investigates the experiences of students who served as peer mentors, and how their involvement in the retention program has</p>	<p><b>Conclusions</b> “We used qualitative methods and sought to understand the influence of peer mentor roles on student retention and success from the perspective of the peer mentors. This study was conducted at a large, Research I institution located in the southwest, and focused on a 6-week summer transition program for incoming freshmen. Data was collected and analyzed in two phases. The first phase consisted of collecting text narratives in the form of online essays from peer mentors, with the second phase consisting of four focus groups with peer mentors.” (p. 495)</p> <p>“The program serves approximately 250 students each year. The majority of the program participants are graduates from in-state high schools, qualify for need-based financial aid, and identify as students of color. Additionally, many of the students are first-generation college students. Because of where this university is located geographically, the majority of students attending this program identify as Latina/o or Hispanic (approximately 60%). The program consists of three distinct components. In general, the role of a peer mentor in this program is to provide important university information and to serve as a trusting peer to whom students can turn for questions and concerns. The residential component is staffed by six peer mentors. The residential peer mentors are responsible for residence hall safety, programming, and community building. These peer mentors live on campus with approximately 60-80 of the program participants each summer. In the orientation component, students</p>

influenced their social and academic development while in college. Findings suggest that employing peer mentors can be mutually beneficial to retention efforts since the peer mentors were trained to demonstrate aspects of advocacy, role modeling, and acting as human bridges for the program participants while also benefiting from those very forms of institutional support embedded in the program structure. Specifically, peer mentors developed important peer-to-peer and peer-to-staff social relationships that aided in their own retention.

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meet daily in small-group workshops and learn about first-year transition issues. This component is typically staffed by 18 peer mentors each summer. The orientation peer mentors are responsible for developing and presenting daily curriculum around student success topics like financial planning, time management, diversity and inclusion, and campus resources. They also meet individually with each of their 15-20 students twice during the summer. Finally, the academic component provides an opportunity for students to take a university course in math, English, or anthropology taught by doctoral students.” (pp. 495-496)

“Peer mentors who work with the residential and orientation components attend training 3 weeks before the program begins. Training starts with a 2-day off site retreat. The goals of the retreat are twofold: community development and an immersion into social justice. The program personnel encourages the student staff to consider social justice and critical consciousness on a variety of levels: developing a deeper awareness of self, developing a deeper awareness and broader perspective of others, developing a deeper awareness and broader perspective of social issues, and seeing one’s potential to make change (Cipolle, 2010, p. 7). The intensive training that follows the retreat is meant to not only provide skills (i.e., para-professional counseling skills, classroom management skills, and knowledge of campus resources); it is also meant to develop a strong community and expose peer mentors to issues of access, transition, and educational inequity. Peer mentoring staff met daily once students arrive to the program, and 1 day each week was designated for continued professional development.” (p. 496)

“Two phases of data were collected as part of this study. Phase one included a collection of text narratives using online essays. These short narratives described events with specific emphasis on significant aspects of their employment as peer mentors (Chase, 2005)...Phase two of data collection was a series of four focus group interviews. Each focus group had between four and seven participants. Focus groups were appropriate for this study because participants were engaging in a process of collective sense making—a community dialogue based on their shared experiences (Mertens, 1998; Wibeck, Dahlgren, & Oberg, 2007).” (p. 497)

“Notions of organizational culture to help explain the structure of opportunity present within the program. The organizational culture represented in this particular program is one of shared values and allowed for peer mentors to develop a collective identity and group norms (Kuh & Whitt, 2000). As Museus (2008) pointed out in reference to educational institutions, culture is represented in what an institution has and in what an institution does (p. 569). Although we are applying the notion of culture to a particular program, the sentiment holds true...The repetitious, deliberate nature of various

structural elements of the program like the staff retreat and training provided the basis for the development of culture, a community, and ultimately, a social network. Structural elements include purposeful, ongoing, and interactive training on topics ranging from social justice to educational theories, campus resources and program events designed to introduce the staff and participants to key individuals across campus.” (p. 503)

“In this program, there was an intentional effort to bring the student staff together prior to the start of the program to create a common experience...The retreat represented one of the first spaces where peer-to-peer social relationships were formed. The off-campus retreat represented an opportunity for the peer mentors to reflect on their college experiences and their role as a peer mentor. The intent of the retreat was to create a sense of trust and collective identity with the staff through personal reflection, team building, and social justice activities.” (p. 504)

“In addition to creating trust among the staff, the training also focused on educating the mentors about social justice issues and providing various types of skill building. For example, in the following quote Candice highlighted how her communication skills were developed during training and enhanced in her interactions with her students and peer mentor colleagues:

One thing that stands out to me is the role of being a mentor and being a better listener. The whole act of listening I think is really important...I would just like to stress how important the training was to me in terms of my college experience and me being a better student and friend. It’s usually more obvious to see the benefits of being a mentor for the students I had but working with the other peer mentors in the training was also really beneficial. (Candice, White senior)

One of the most frequently discussed new skills described by peer mentors was in the development of being a socially just individual. Raising the staff’s social justice consciousness (Cipolle, 2010) was encouraged through readings and discussions about educational access and inequities, power, and privilege. It also occurred through specific activities and dialogue about personal experiences. As a staff member you really gain a lot of new insights and perspectives. You also gain a lot of great skills. Not just during training, but you’re able to expand upon everything that was covered in training. You learn how to handle conflicts, what to do in case of emergencies, what it means to be inclusive, diverse, and socially just, and how to respectfully challenge others on their beliefs; especially students who are all coming from their respective high schools and might not have experienced other people outside of their own little bubble. (Shaina, Mexican & Apache sophomore)” (p. 504)

“The final quote in this section highlights staff development that occurred at the end of the program. Rolando highlighted one such event as significant in realizing how he had changed over the course of the summer.

I wasn’t a very assertive person. I wasn’t a very strong willed person, I would say. And I wouldn’t, I didn’t open up so easily to people. It really took me a long time to fully open up...And during the course of the program, you have to rely on others. You have to learn to talk to others...And at the end of the program, I mean I walked away from it a much stronger person in character. (Rolando, Hispanic senior)

Rolando illustrated not only a personal change and growth, but one that was facilitated by the program community. His mention of the ‘huge circle’ was an example of a final day ritual that the coordinating staff created as a way to engage in community reflection. As he shared his experience in the focus group, others nodded and affirmed Rolando’s experience.

It was clear that structural factors such as training, group development, and retreats influenced social relationships among the peer mentors, development of new skills—particularly in the area of social justice—and provided a bridge to other opportunities. It also contributed to the development of community. Through their reflections, peer mentors realized their role in the community and the role of the community in their own development. The programmatic structures provided an entrée into social networks via new relationships and human bridges.” (p. 505)

“Community-building was a significant component in the peer mentors’ experiences. Similar to Harmon’s (2006) findings, peer mentors drew upon one another when needing resources for working with their students and for gaining insight into classroom management issues. However, as Rolando explained above, peer mentors played a much larger role—they were active members in the development | of one another.” (pp. 505-506)

“Social support, resources, and networks occur as a direct result of activating relationships or as a by-product of social interaction (Stanton-Salazar, 2001). In this case, resources and networks were developed as a result of the community that was activated through the organizational structures of the program—or, as Julissa put it, ‘It’s a support system that gets built. There’s like an invisible web that goes around.’” (p. 507)

“Peer mentors’ experiences in this program did not just extend their networks or connect them with new opportunities, these experiences became integral to their success as students. Of the peer mentors we spoke with, Pablo had worked for the program the longest and in many different roles. At one

point, Pablo was responsible for coordinating and training the peer mentors and knew well the larger impact that this could have:

For me the experience of working for [the program] was much more than just a job. I think it was also instrumental in my own retention as it enabled me to make more and more connections with other students and university staff each year that I participated, and therefore more and more people wanted to see me graduate. I believe it was this experience that retained me as a student employee and affected my own personal decision to work in higher education now as a graduate. (Pablo, Latino graduate student)” (p. 508)

“Retention initiatives often strive to provide academic and social support to assist students in succeeding in their first year of college. Specifically, student-initiated retention programs are noted for developing knowledge, skills, and community ties for the students being served (Maldonado, Rhoads, & Buenavista, 2005). Findings from this study suggest that peer mentors of retention programs can experience similar benefits. We contend that the peer mentor role serves as a powerful mechanism in the retention of both the mentor and the mentee.

More importantly, we argue that the program itself serves as an activating force, as an institution where social capital is exchanged—through the organizational structure and culture and through the established social networks that the program personnel seek to cultivate and maintain. Through the organizational structure and culture of the program, important peer-to-peer and peer-to-staff relationships are developed. Rosenbaum’s (1978) concept of structures of opportunity help to further understand this. His findings suggest that educational mobility occurred for students in more rigorous academic tracks. The findings in this study extend Rosenbaum’s concept by highlighting the structural processes of one program—the training, organizational rituals, staff development, and community building that facilitated enhanced social and educational mobility for students. Of particular importance were the elements of human bridging, advocacy, role modeling, and social support (Stanton-Salazar, 2001) that were present within these structural processes. Additionally, the examples above demonstrate that peer mentors experienced more than enhanced academic skills and self-reflection (Harmon, 2006); they were embedded within an invisible web of support in which they benefited and reciprocated social capital. Peer mentors became important institutional agents for one another and the students they mentored, further cultivating social capital.” (p. 509)

“While it is important and necessary to focus on the students who utilize peer mentoring programs, it is equally important to design program components and properly train the undergraduate students who provide services as part of the program. As we see here, the experience encourages the development of relationships and awareness of institutional support. Since opportunities to gain social capital are



	<p>embedded in the social structure of the program and the university, we see an opportunity for more deliberate conversations about the important role of peer mentors since they are contributing to and benefiting from the structure of   opportunity developed as part of the retention program. Therefore, we encourage practitioners and researchers alike to begin documenting these benefits and recognize the structure of opportunities that facilitate the benefits if we are to understand the complexity of student retention.” (pp. 511-512)</p>
<p><b>Citation</b> Kiyama, J. M., Luca, S. G., Raucci, M., &amp; Crump-Owens, S. (2014). A cycle of retention: Peer mentors’ accounts of active engagement and agency. <i>College Student Affairs Journal</i>, 32(1), 81-95.</p> <p><b>Abstract</b> This qualitative study explores the academic and social development of peer mentors who worked in a summer retention program. Findings suggest that peer mentors developed a greater sense of belonging, new skills, and an understanding of institutional structures, theories, and people that promote their success as students. Ultimately, peer mentors are influenced by their peer environments while at the same time actively (re)shaping that environment for themselves and others.</p> <p><b>Limitations</b> “Important limitations exist in the selection of site and participants. We are limited to one program at one institution. Our goal however, was not to generalize to other institutions or programs, as Creswell</p>	<p><b>Conclusions</b> “This article is based on a larger study examining the influence of peer mentor roles on social development, social capital, and student retention. This study focused on a summer bridge retention program at a very high research activity university located in the southwest. This particular program, which we call Summer Bridge, employs approximately 40 peer mentors each summer. We invited 25 former peer mentors to participate in our study. We employed an intrinsic single case study design (Stake, 2005) and collected two phases of data during the spring of 2009. The first phase consisted of collecting text narratives in the form of online essays from peer mentors, with the second phase consisting of four focus groups with peer mentors. We drew upon narrative text analysis (Reissman, 1993) and thematic analysis to make sense of the data.” (p. 85)</p> <p>“The Summer Bridge program was created in 1969 after students of color came together and demonstrated the need for services for low-income and ethnic minority students. We chose to focus on the Summer Bridge program because it was founded by students and maintains a long tradition of involvement from student staff...The program serves approximately 250 incoming first-year students each summer. Students have played an active role in the program since its inception, serving as student recruiters, peer advisors, resident assistants, and tutors. Peer mentors help to staff the academic, orientation, and residential components that incoming first-year students experience during the program.” (p. 86)</p> <p>“Peer mentors were active participants in creating a sense of place and belonging for the students they mentored and for one another. Julissa explains how a sense of belonging was initially established at the formal training since peer mentors were willing to share vulnerable elements of themselves thus, highlighting the important sense of trust that is built among the staff. The activities [the coordinating staff] make us do—some of them are silly and some of them are really serious. They make us cry or they make us laugh. I think they’re really intentional, and some are so valuable because you get to open the peer advisors to a degree that they feel exposed, but not insecure that they’re going to be hurt by anything.... The people [peer mentors] are not afraid of showing who</p>

(2007) reminds us is not the intent of qualitative research. We aimed to capture the experiences of peer mentors through their own voices and words. We also recognize that our participants represent a group that has taken the initiative to be involved. One might expect an obvious interest in sharing since students experienced tremendous gains during their time as a peer mentor.” (pp. 86, 87)

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they are. They even learn through the process who they are. (Julissa, Mexican American/Native American junior)

Julissa’s comment highlights what can result from examining oneself and developing self awareness. Through a deeper level of sharing and vulnerability, a greater sense of connectedness and belonging was cultivated amongst the peer mentors. Javier added:

Not only did the program empower me to become a mentor and help others, but it has allowed me to influence others in the way that creates a cycle for I am sure they will become future leaders and help the lives of others here at the [university]. (Javier, Hispanic senior)” (p. 88)

“Creating a sense of belonging as it relates to students’ racial and academic environments is critical to enhancing retention (Reason, 2009). What is significant about these findings is that retention programs like Summer Bridge facilitate a sense of belonging for both program participants and program staff. Further, findings demonstrate that peer mentors are committed to developing that sense of belonging between one another, thus reminding us that we cannot overlook their important role as active participants in their environments. Peer mentors drew upon their newfound skills to create that sense of belonging for themselves and others.” (p. 89)

“...Peer mentors in this study enhanced their personal and professional skill sets. Additionally, peer mentors spoke about how these new skills were critical in their feelings of empowerment, navigation of institutional structures, and appreciation for social justice and diversity. Felisha, a Mexican senior, shared, ‘I think [the program] gave me more confidence in not only my presentation skills but confidence in being a student here at [the university].’ Felisha’s participation as a peer mentor facilitated the skills needed to be successful in various university settings...Candice shared, ‘One thing that stands out to me is the role of being a mentor and being a better listener. The whole act of listening is really important.’” (p. 89)

“Perhaps the most striking element of skill development was reported in the area of diversity and social justice. What became apparent in conversations with peer mentors was how important these competencies were in negotiating other elements of their lives on campus.

You become aware of these jokes that you didn’t realize before are pretty stereotypical and are negative jokes. I think as a student, going through Summer Bridge, you just brush the surface. You get a taste of it [as a student], but it’s not enough to really influence your decisions until you’re an actual employee of Summer Bridge. Then that’s when you’re really emerged into it. (Elsa, Mexican American sophomore)” (p. 89)

“Of particular significance was peer mentors’ development of a comprehensive understanding of the context of education and retention processes. As part of their training, peer mentors were exposed to articles and reports that introduced them to college retention language, theories, and statistics. Unlike formal classroom settings, the preexisting rapport with one another allowed peer mentors the opportunity to work together to consider the broader context of their work and frame discussions to reflect that. Creating a safe space to have reflective discussions was key to helping peer mentors make connections from their collective educational experiences and see themselves as active agents of their own and their mentees’ retention. The peer mentors’ application of this knowledge extended beyond the scope of the summer job, leading some peer mentors to articulate their experiences from both a practical and theoretical perspective, and understand the role that institutional structures play in their experiences. Finally, this knowledge led to recognition of the power of individual agency.” (p. 90)

“Peer mentors began utilizing their knowledge to work toward educational equity and change. These processes occurred during and after their employment with Summer Bridge. Many peer mentors worked with other campus outreach and retention programs, as advocates for cultural centers on campus, and as student admissions recruiters for prospective students of color. Shaina, a Mexican/Apache sophomore summarized, ‘I never realized that they [her passion for social justice, education, and a future job] could all be related.’ At least five of the peer mentors were attending graduate programs in higher education or student affairs.” (p. 91)

“Finally, reciprocity and agency were represented in many of the peer mentors’ comments. Reciprocity provides opportunities for group cooperation and is based on the assumption that acts of good will be repaid at some point in the future (Newton, 1997). Alicia expressed, I knew I wanted to come back and give to a program that had given so much to me. It was not hard for me to see just after my first semester that it was because of Summer Bridge that I continued with my college career. (Alicia, Asian American senior)” (p. 91)

“Peer mentors noted the ways that they developed a sense of agency, particularly when in reference to giving back to Summer Bridge and their own cultural communities. I’ve been encouraging other people to apply for [peer mentor positions]. I’m trying to get other Native students to apply for the position because you never get many Native American students in these positions. I think it plays a role. I didn’t feel really connected to anybody when I went through Summer Bridge. I didn’t get to know my [resident assistant]. I didn’t get to know my peer advisor. I feel like I tried to change that when I had students when I was working. I try to reach out to the Native students when I worked for the program. (Melina, Native American senior)” (pp. 91-92)

	<p>“These examples highlight a number of important factors in the experiences of peer mentors. Most importantly, peer mentors began recognizing the power of their individual agency, that they can create inclusive spaces for themselves and students, and that their new skills, and knowledge can lead to leadership and career opportunities that will help in continuing that cycle of retention.” (p. 92)</p> <p>“This study is particularly noteworthy because very few examples exist that document student gains as a result of participation in a structured peer mentor role. Findings suggest that peer mentors are influenced by their peer environments while at the same time actively (re)shaping that environment for themselves and others. In doing so, they become confident about their educational journey, illustrating their knowledge by the language they choose to use and future initiatives in which they participate. In turn, the peer mentors become active agents in their own education, leaders on campus, and became part of creating a cycle that continues to foster successful engagement and retention of underrepresented students.” (p. 92)</p>
<p><b>Citation</b> Spaulding, D. T., Kennedy, J. A., Rózsavölgyi, A., &amp; Colón, W. (2020). Differences in outcomes by gender for peer mentors participating in a STEM persistence program for first-year students. <i>Journal of STEM Education: Innovations and Research</i>, 21(1), 5–10.</p> <p><b>Abstract</b> While the majority of STEM persistence has focused on outcomes for first-year students there has been little investigation into the outcomes for peer mentors and no investigation into whether peer mentors perceive the experience differently based on gender, ethnicity or other relevant variables. The purpose of this study was to examine an archival dataset containing perceptions of peer mentors to determine</p>	<p><b>Conclusions</b> “The purpose of this study was twofold: first, it was to determine if the items used to measure peer mentor perceptions as to the benefits of serving as a mentor could be clustered differently than the original survey instrument used; and second, to determine if there were differences on key variables (e.g. mentor’s gender) and the perception of these experiences.” (p. 6)</p> <p>“A research-intensive (R1) university with a total undergraduate enrollment of ~6,400 students located in the northeast recognized the need to better support first-year students. The institution in 2014 secured a five-year grant for \$1.2 million from the Howard Hughes Medical Institutes (HHMI) to design and implement an Integrative Program for Education, Research and Support Involving Science and Technology (I-PERSIST). The purpose of this learning community program was to provide all first-year students enrolled in one or more of the introductory STEM courses (i.e. Calculus I, Chemistry I, or Physics I) with weekly small group, tutoring-support sessions run by a peer mentor. The main objectives of I-PERSIST were to: improve student experiences in these three ‘gatekeeper’ courses, help incoming STEM students develop key study and social skills shown in the literature to help students improve student academic achievement, and increase the percentage of first-year STEM students continuing at the institution. The long-term goal of I-PERSIST was to increase student retention in STEM fields. Retention of first-year students has continued to remain stable at the university even though the numbers of incoming students has increased.” (p. 6)</p>

if there were differences in perceptions of the mentoring experience. An archival data set containing the responses of 309 peer mentors who mentored first-year undergraduate students enrolled in gateway STEM courses (Calculus 1, Chemistry 1, and Physics 1) were examined. A principal analysis component (PCA) was conducted and four factors were identified: Academic Scholarship, Academic Fit, Academic Professionalism, and Academic Relationships. Following this, a MANOVA by gender was performed across the four factors. Significant gender differences were found for two factors: Academic Professionalism and Academic Relationships, with females noting that as a result of participating in the mentoring program they believed they gained in these areas more than their male counterparts.

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“Each mentor was assigned two groups of eight to 10 students and held weekly one-hour sessions with each group. These small group sessions were mostly held in classrooms and meeting rooms throughout campus. During the weekly sessions, mentors worked with their mentees to reinforce material and concepts taught during weekly course lectures. Mentors also taught first-year transitional content (study skills, time management, test taking strategies, etc.), similar to subjects found in traditional first-year seminar courses. In addition to weekly mentoring sessions, mentors were required to hold two hour-long office sessions per week to provide students with individual time to ask content related questions.” (p. 6)

“This study is a secondary analysis of the university’s archival peer-mentor data set. While 372 peer mentors participated in the program across the three years, 309 mentors completed the survey (an 83% response rate). In all, 20% of mentors served two years as a peer mentor, 58% were female and 42% were male. A majority (67%) of mentors were White, 13% were Asian American, 7% identified as Hispanic/Latinx, 1% African American and 7% Other or Multi Race (see Table 1).” (p. 6)

“From 2015 to 2017 institutional research administered an electronic survey each fall to all mentors participating in the program. Program administrators, to modify and improve the overall mentor experience used the survey information regularly. In the spring of 2018, a request to access the archival database was made and following IRB approval a secondary quantitative analysis was conducted.” (p. 7)

“Mentoring certainly changed the instructional paradigm. The very act of mentoring another individual or small group of individuals required one to build relationships with others, interact on a weekly basis in small group discussions, share ideas and opinions, understand how people have come to construct knowledge, and share strategies for improving one’s soft skills associated with academic success. These were not typical skills or experiences that a student obtains from traditional large lecture halls or even smaller seminar-type settings. It was this new personal learning experience for the mentors called ‘mentoring’ that provided an opportunity for students to develop not only as students but as future new professionals in their respective fields.” (p. 8)

“In addition to skills and new opportunities, mentoring also provided unique learning experiences for those who have traditionally been underrepresented in STEM. The lack of underrepresented students (e.g. women, African Americans, Hispanics/Latinx) pursuing a STEM education in the United States has been well documented (Xu, 2018). While there has been a wide range of actions taken by colleges and universities to address this dilemma, the gap, as many refer to it, still remains very much in

existence today. A prime example of this would be in the demographics for the incoming first-year class at the institution in this study. The demographics speak for themselves with 32% female; however, it should be noted that perhaps a possible outcome of the mentoring program may be in the disproportion of females who serve as mentors. Females outnumber males serving as mentors 58% to 42% in an institution that is 32% female and 68% male.

The literature points to many reasons why this gap still remains for women: department and classroom climates that do not encourage women, lack of interest in key content areas, influence of support systems, lack of role models, unsure that as women they can make it (Morganson, et al. 2015; National Academy of the Sciences, Engineering, and Medicine, 2018). In addition to these deficiencies that keep women from joining the STEM higher education learning force, there has also been gender discrimination (National Academy of the Sciences, 2007a), as well instructional approaches that have been recognized for lending themselves to supporting traits associated with one gender over another. Large, informal, didactic lecture centers where students are rewarded for risk taking, with little interaction with others and where faculty are the disseminators of knowledge (and students as sponges, soaking up that knowledge) has been the approach that many introductory STEM classes have traditionally taken. This approach to learning has been associated with playing into the strengths of how males tend to learn best and not environments in which females have tended to flourish academically (National Academy of the Sciences, 2007a).

While it was uncertain to know exactly why such a large proportion of females volunteered to be mentors in this program, it is clear that females saw a value in being a mentor, as well as many different outcomes. It was also clear that females associate these outcomes with mentoring more than their male counterparts. Being a mentor allowed women to grow in confidence in completing the actual classwork, supporting that they have the drive and will to succeed in the sciences (National Academy of the Sciences, 2007a).” (p. 8)

“Females reported higher agreement with Academic Professionalism [Student Overall Satisfaction with Institution] than males in the study. No doubt, that leading weekly group sessions and working with first year students through problem-based learning provided females an opportunity that they found more valuable than males. Similarly, the peer mentoring opportunity increased mentors’ presentation skills, as well as their own understanding of the material. Again, it appears that females reported they found this more of an outcome than males. The difference in men and women ‘valuing’ the mentoring experience and the outcomes associated with this experience may be due in part to how gender plays a role in learning, motivation and engagement. In addition, | the act of mentoring may to some degree support generation z’s need to learn in a hands-on manner, while making a difference and gaining real world experiences (Seemiller & Grace, 2016). Potentially, the mentor experience

	<p>prepared them to become better role models, leaders, and teachers in the fields of science in the future (Phillpp, et al. 2016).” (pp. 8-9)</p> <p>“In addition to the above findings, the factor analysis allowed for a new construct in this study, Academic Relationships to emerge. The female mentors reported that the experience of being a mentor helped them to feel more confident in their relationships with TAs and faculty. For women in the sciences it has been historically shown that they may likely experience a sense of isolation and discrimination in the STEM classroom, laboratories and the field of science and engineering in general (Espinosa, &amp; Nellum, 2015; National Academy of the Sciences, 2007a). Data from the National Science Foundation (2017) indicated that women have met parity in a number of the science fields (e.g. psychology, sociology, mathematics, etc.) but there is still a proportionally lower rate in physics, engineering, and computer science. This has created a lack of women role models for students and perpetuates the question for women about their fit in the STEM field as a place to see themselves doing the work of a scientist. (Graham, et al. 2013). Possibly, being a mentor has helped these female students to gain confidence in their skills as they negotiate the STEM environment.” (p. 9)</p> <p>“Overall both men and women mentors felt they gained from the mentoring experience improvement in their ability to be successful scholars and growth in academic scholarship [Skills Developed]. They both also felt a sense of academic fit within the institution by being mentors. Where the experience diverged for women was in academic professionalism, where women felt more strongly that they gained more depth of the subject matter, leadership and presentation skills. Women also reported they felt that the mentor experience more strongly assisted them in increasing their sense of academic relationship with faculty and teaching assistants. This research may help STEM educators to gain more information about the benefits of the mentor experience.” (p. 9)</p>
<p><b>Citation</b> Spaulding, D. T., Kennedy, J. A., Rozsavolgyi, A., &amp; Colón, W. (2020). Outcomes for peer-based mentors in a university-wide STEM persistence program: A three-year analysis. <i>Journal of College Science Teaching</i>, 49(4), 30–36.</p> <p><b>Abstract</b></p>	<p><b>Conclusions</b> “This article provides a program overview for a large university-wide peer mentoring program, whereby 372 mentors served over 3,000 firstyear students across three years.” (p. 30)</p> <p>“A research-intensive (R1) university located on the upper eastern seaboard with a total enrollment of approximately 6,400 undergraduate students recognized the need to better support first-year students, particularly in the crucial first semester. In 2014, the institution secured a five-year grant for \$1.2 million from the Howard Hughes Medical Institutes (HHMI) to design and implement an Integrative Program for Education, Research and Support Involving Science and Technology (I-PERSIST). The purpose of this learning community program was to provide all first-year students enrolled in one or</p>

While the majority of STEM persistence has focused on outcomes for first-year students, there has been little investigation into the outcomes for peer mentors. Of the studies conducted, results are promising. Benefits for peer mentors include a change in their perceptions on teaching and learning; an improvement in their communication, presentation, and leadership skills; and an increase in their understanding of the course content. However, one of the main limitations of these studies is their small sample sizes. Many of the studies purport sample sizes of 5 to 30 peer mentors. The purpose of this article is to overview, from the perspective of the mentors, a university-wide interdisciplinary peer mentoring program for first-year students enrolled in key gateway courses (Calculus I, Physics I, and Chemistry I). Each year over 1,000 undergraduate students participated in the program and were served by approximately 136 peer mentors. The program was monitored by an advisory committee comprising an interdisciplinary team of faculty, university staff, program staff, and an outside consultant. This article examined mentor outcomes and included the data from over 300 mentors.

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more of the introductory, faculty-taught, STEM courses (i.e., Calculus I, Chemistry I, or Physics I) with weekly small group, tutoring-support sessions run by a peer mentor.” (p. 31)

“Mentors were each assigned two groups of eight to ten students and held sessions with each group for one hour once a week. These small group sessions were held in classrooms or meeting rooms throughout campus. Mentees could be in all three of the introductory courses, and therefore, receive all three mentoring experiences; however, in most cases mentees were in one or two of the introductory courses. During the weekly sessions, mentors worked with their mentees to reinforce material and concepts taught during weekly course lectures. Mentors also taught first-year transitional content (study skills, time management, test-taking strategies, etc.), similar to subjects found in traditional first-year seminar courses. In addition to weekly mentoring sessions, mentors were required to hold two hour-long office hour sessions a week. These office hours were designed to provide students with individual time to ask content-related questions.

During the academic year mentors received ‘just-in-time’ professional development. Mentors met once a week with faculty from their subject area, as well as staff from the Office of Student Life. During these supervisory meetings, mentors received information about upcoming lesson plans and reported back on the progress and outcomes of their sessions. Mentors provided faculty and staff with feedback about students who were absent, unengaged, or seemed to be struggling. This allowed staff the opportunity to follow up with these targeted students and get them back on track. An electronic form was also created so mentors could report at-risk students in a timely manner.” (p. 32)

“Survey data for mentors were collected internally by institutional research, along with demographics data (i.e., gender, ethnicity). Surveys were administered at the end of the fall semesters to mentors and overall 83% (309) responded. Demographics for the mentors who responded to the survey compared to demographics of incoming classes is shown in Table 2.” (p. 33)

“The first analysis examined the demographics of the mentors who responded to the survey. As shown in Table 2, females made up a significantly larger proportion of the mentors than males, and white students served as mentors more than any other ethnicity group; however, 12.9% of mentors identified themselves as Asian. While the majority (68%) of incoming first-year students were male, the majority (58%) of mentors were female.” (p. 33)

“Overall, mentors reported positive outcomes associated with skill development. Most agreed that as a result of being a mentor they had increased their own leadership, study, presentation, and time management skills. From year to year, mentors had an increase in this perception. An ANOVA



revealed that the difference in 2017–18 means for leadership and presentation skills were significantly greater than for 2015–16 or 2016–17 (see Table 3).” (pp. 33-34)

“In addition to skills, mentors also reported agreement with topics related to content knowledge and self-regulation. An ANOVA revealed a significant difference in mean for 2017–18 compared to the other years for increased knowledge of the subject matter, greater motivation to be successful, and better able to cope with stress (see Table 4).

Mentors also reported a stronger connection to others in the college community...Lastly, mentors’ satisfaction with the institution were examined. Posthoc analysis revealed that across all three items related to connecting to the institution, the 2017–18 mean was statistically significant compared to the other two years. Mentors in year 2017–18 may have been in more agreement about the outcomes and benefits of their mentoring experience. Many of them had served as mentors previously compared to the two other years. Approximately, one third of the mentors were returning mentors, which program officials perceived as a positive sign. This high rate of returning mentors increased the quality of the program, thereby enhancing the mentoring experience for both mentees and mentors (Table 6).” (p. 34)

“Another item gathered was about the benefits mentors believed they gained from the experience. These benefits included, but were not limited to giving back to the institution; | connecting with faculty and first year experience personnel; making friends; and developing leadership, presentation, and social skills. When asked if they would consider mentoring again, the majority of mentors indicated that they would.” (pp. 34- 35)

“STEM businesses and industry continue to report that undergraduates entering the profession severely lack basic communication skills (both oral and written), as well as the ability to collaborate, problem solve using a team approach, and develop positive working relationships with others (Lingard & Barkataki, 2011). Results from this project demonstrated that mentors received valuable skills that will serve them well as they enter their respected professional fields. Developing these skills may also be another reason the institution has seen the steady increase in interest by students to serve as mentors.” (p. 35)

“One of the core components to implementing the I-PERSIST program was that students be willing to serve as mentors without financial compensation. This was an essential aspect for long-term sustainability and for feasible implementation at other universities. While this program was implemented in a four year school, there is no reason it could not be replicated in a community

	<p>college. Before scaling up a current program or implementing a new program of this size, it is recommended that the institution determine whether there may be enough interest from students to serve as mentors. A shortage of appropriate volunteer students to serve as mentors would pose a great challenge to successfully implementing this model.</p> <p>This large-scale effort required a high level of collaboration and coordination within the organization from both STEM faculty and Student Life staff. Program team members, faculty, and members from the Offices of First-Year Experience, Student Support Services, and Institutional Research met monthly throughout the academic year to address programmatic concerns, review formative and summative student outcome data, and modify the programming accordingly. This level of commitment is essential for running a successful campus-wide mentoring program.” (p. 35)</p>
<p><b>Citation</b> Walters, G., &amp; Kanak, A. (2016). Effects of peer mentorship on student leadership. <i>Honors in Practice</i>, 12, 59–76.</p> <p><b>Abstract</b> Orienting and welcoming first-year students to campus and to honors programs are often key components of program development. At an institutional level, successful orientation programs can positively affect retention rates from the first to second year. The greater a student's involvement and integration into the life of the university, the less likely the student is to leave (Tinto). Institutional retention often translates into retention within honors programs as well. The most important benefit of orientation, however, is that students feel welcomed at the university and within the honors program. Not only do they understand the requirements of the program, but they also make friends and begin to envision how</p>	<p><b>Conclusions</b> “Orienting and welcoming first-year students to campus and to honors programs are often key components of program development. At an institutional level, successful orientation programs can positively affect retention rates from the first to second year. The greater a student’s involvement and integration into the life of the university, the less likely the student is to leave (Tinto). Institutional retention often translates into retention within honors programs as well. The most important benefit of orientation, however, is that students feel welcomed at the university and within the honors program. Not only do they understand the requirements of the program, but they also make friends and begin to envision how they might use their honors program experience to grow as scholars and citizens while also having a bit of fun in the process. In an attempt to achieve all of these goals, the honors program at Minnesota State University, Mankato established a first-year honors student retreat incorporating peer mentors.” (p. 59)</p> <p>“In the fall of 2014, the staff worked together to create the first honors student retreat. The program already had an established group of peer mentors whom we decided to empower as leaders of the retreat. Staff and mentors decided to schedule the retreat early in the academic year so that students could become involved with the program outside of the classroom relatively quickly. Early involvement is crucial because failure to participate in campus activities, organizations, and extracurricular activities, which promote integration into college life, can lead to higher chances of attrition for some students (Roberts &amp; McNeese). With more input from student leaders and a more formalized process in the fall of 2015, students and staff have created a sustainable program that allows first-year students to learn and have fun while at the same time it promotes leadership skills and provides mentorship opportunities for older students. ” (p. 60)</p>

they might use their honors program experience to grow as scholars and citizens while also having a bit of fun in the process. In an attempt to achieve all of these goals, the honors program at Minnesota State University, Mankato, established a first-year honors student retreat incorporating peer mentors. This article describes the rationale behind the first-year student retreat, the procedures for organizing and facilitating it, and its impact on both first-year students and mentors. The hope is that this article might inspire and encourage other honors programs to implement high-impact practices that facilitate successful student transition into college.

**Article Link**

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“The mentors decided that their purpose was to inform first-year students about honors competencies, facilitate open discussion on how to approach these during academic careers, and develop their own leadership skills through activity facilitation. ‘Peer leadership programs...give upper-class students the opportunity to serve as leaders by assisting with extra curricular activities, course teaching, tutoring, and other pursuits’ (Leichliter 156). Fulfilling this leadership role, the mentors decided that activities should focus | on the honors competencies of leadership, research, and global citizenship. They also wanted to incorporate activities that focused on information helpful to new students. Staff and students planned a full day of activities that included sessions about program requirements, fitting honors into various majors, understanding the concept of reflection, and finding faculty research mentors. After meeting monthly starting in January, planning sessions for the retreat concluded at the end of spring semester with an itinerary outline, a request for materials, and a list of confirmed faculty and student volunteers. When the 2014–2015 academic year began, student leaders practiced facilitation with their partners. During their introductory honors courses, first-year students signed up to attend so that leaders could cater the activities to a definite number of participants. The retreat was not mandatory for first-year students although staff highly recommended it.” (pp. 62-63)

“Student leaders practiced group facilitation and mentoring techniques, provided an event for first-year students to interact with the mentors, and advised their peers in honors competencies and language. The most immediate payout for student leaders was that they practiced event planning and coordination. The leaders hosted frequent formal meetings during the semester before the retreat, reviewing the previous agendas and proposing changes and additions to programming. The leaders were creative in their design of engaging activities given the resources available. In reflecting on their past experiences, they could create better activities by filling gaps and taking ownership of projects. Coordinating with other student | leaders on a team allowed the leaders to practice active listening skills. Clear communication of ideas was key, and accepting criticism added to their interpersonal skills.” (pp. 63-64)

“Student leaders who were enrolled in Developing Your Mentor Philosophy benefitted in ways beyond event planning and coordination; by providing an event for first-year students to interact with the mentors, the leaders promoted the progress of the mentorship program, developing their abilities to be resourceful while practicing interpersonal communication skills. They practiced their personal philosophies of mentorship by demonstrating their abilities to advise peers in honors competencies and language. As the primary facilitators of the retreat, the mentors led activities and games centered on students’ learning needs. They practiced group development skills and encouraged sharing of diverse perspectives.” (p. 64)

“...A particularly gratifying piece of feedback was that a first-year student ‘loved being with the mentor of my major.’ These reactions are all outcomes that we hope for from the retreat. Furthermore, we hope that many students who attend the retreat as first-year students choose to be mentors and student retreat coordinators in future years. Dewart et al. have stated that, once students have gained academic information about increased student learning and have found benefits from participating as mentees, their willingness to participate in the program as mentors increases, thus providing a self-perpetuating model. Of the first-year students who participated in 2014, eight participants went on to provide facilitation and/or served a leadership role during the 2015 retreat. Our program looks to expand the roles of the retreat leaders; as outlined in Johnson, peer mentors serving as teaching assistants can provide beginning students with first-hand accounts of honors involvement. We are actively working on developing such teaching assistantships for the 2016–2017 academic year.” (p. 67)

“Based on our experience at MSU, Mankato, we believe that honors programs benefit from high-impact practices that facilitate short- and long-term growth and development within their students. First-year students need a successful transition to the university and their honors program for the sake of the program’s development as well as the students’. With universities examining retention as an indicator of progress and success, honors programs can use a first-year retreat to facilitate student transition. We believe that our model serves as a successful example, and we hope that it inspires other programs to create similar practices.” (p. 67)