What to Know Before You go: Benefits and Challenges of Conducting Undergraduate Research in Global Contexts

PURM
Perspectives on Undergraduate
Research & Mentoring

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Undergraduate research (UR) and diversity/global learning have been identified by the Association of American Colleges & Universities (AAC&U) as high-impact practices (HIPs), or high-quality teaching and learning praxes that promote student engagement, student retention, and positive student learning outcomes (Kuh, 2008; Kuh & O'Donnell, 2013). Research indicates that participation in these HIPs challenges students to experience diversity and develop new ways of thinking. A large-scale longitudinal study of the connections between HIPs and student learning confirmed that both undergraduate research and study abroad had positive educational benefits (Kilgo, Sheets, & Pascarella, 2015). Undergraduate research had a broad impact on student learning outcomes, including critical thinking, need for cognition, and intercultural effectiveness, whereas study abroad had a narrower impact but was a predictor of intercultural effectiveness (Kilgo, Sheets, & Pascarella, 2015).

Recent research has expanded the focus on study abroad and learning in international contexts to include "study away," or experiences in a diversity of locations within the United States (Center for Engaged Learning, 2017; Sobania, 2015). Study abroad, domestic off-campus study, and experiential learning in the community are increasingly frequent pathways to global learning. Immersive, place-based learning that encourages students' global engagement through encounters with regional, cultural, religious, demographic, and socio-economic differences is a critical component of higher education today. Although it is clear that mere immersion in another cultural context is not sufficient for global learning, research indicates that development of intercultural knowledge and understanding is most likely to occur when students are actively engaged with diverse communities (Engberg, 2013; Hovland, 2014; Vande Berg, Paige, & Lou, 2012). Conducting research in a global context is one way to become familiar with another culture, articulate real-world challenges and benefits when different cultures interface, and hone research skills, as well as make potential contributions to a specific discipline.

Although few empirical studies have examined the specific indicators of quality in HIPs, "it is likely that components inherent within these high-impact practices, such as interactions with faculty outside of class, academic challenge, and diversity experiences may ultimately be responsible for enhanced student learning" (Kilgo, Sheets, & Pascarella, 2015, p. 523). The role of the faculty mentor has been identified as one key component of what makes UR a high-quality educational experience, particularly when mentors adopt a "scholar-teacher" approach and involve undergraduates in the process of discovery (Boyer Commission on Educating Undergraduates in the Research University, 1998; Brew, 2013; Kuh, 2008; Webber, Nelson Laird, & BrckaLorenz, 2013). It

has been suggested that the deepest engagement in UR occurs when students participate in all aspects of the research process from problem identification to public dissemination in close working relationships with faculty teacher-scholars (Kuh & O'Donnell, 2013).

In high-quality UR experiences, faculty mentors provide developmentally appropriate guidance such that students gradually gain research expertise and become members of scholarly, knowledge-building communities (Brew, 2013; Hunter, Laursen, & Seymour, 2006; Vandermaas-Peeler, 2016; Vandermaas-Peeler, Miller, & Peeples, 2015; Wuetherick, Willison, & Shanahan, in press). Working with others in areas of mutual interest on sustained activities in a collective learning environment in which knowledge, skills, and practices are shared has been termed a "community of practice" (Lave & Wenger, 1991). According to Lave and Wenger (1991), apprentice learners engage in authentic, increasingly complex practices with an eventual goal of full participation and an increasing sense of identity as a master practitioner. The role of the mentor(s) is critical for the development of the learners' personal and professional identities.

Two broad categories of mentoring practices, instrumental and psychosocial, have been identified as particularly salient (Allen, Eby, O'Brien, & Lentz, 2008; Johnson, 2015; Lopatto, 2003). When faculty mentors provide instrumental guidance, modeling and guiding research practices germane to the discipline, students gain professional skills and knowledge and develop identities as members of scholarly communities of practice (Hunter, Laursen, & Seymour, 2006). Mentoring in support of psychosocial support, focused on students' emotional and social development, boosts students' confidence and comfort levels in their interactions with others in the scholarly community (Thiry & Laursen, 2011; Thiry, Weston, Laursen, & Hunter, 2012). Shanahan, Ackley-Holbrook, Hall, Stewart and Walkington (2015) conducted a review of existing literature on mentoring and identified 10 salient practices of mentoring that include both psychosocial and instrumental functions, ranging from strategic pre-planning and teaching relevant disciplinary and methodological skills to building community among the research team members and creating opportunities for peer mentoring. In these salient practices, mentors offer sensitive and developmentally appropriate guidance, tailored to the individual students with whom they are working.

Although extensive research has focused on study away and UR as separate HIPs, relatively few studies of UR during study away experiences have been conducted. Indeed, there are tremendous gaps in our knowledge about layered or "stacked" HIPs conducted simultaneously (Banks & Gutiérrez, 2017). The present study aims to begin to fill this gap, by examining students' perspectives on the opportunities and challenges they faced with conducting research in diverse, off-campus settings and using these findings to offer several recommendations related to mentoring UR in diverse contexts. We then describe a case study of a multidisciplinary regional research group in which faculty mentors scaffold students' knowledge and experiences through a series of instrumental and psychosocial mentoring practices.

Method
Research Context
This research was conducted at Elon University with students who recently engaged in UR in a global (off-campus, either international or national) context. The Council for Undergraduate Research (CUR) definition of UR is operationalized as an inquiry or investigation conducted by an undergraduate that makes an original intellectual or creative contribution to the discipline (CUR, 2015). The role of the faculty mentor is central. UR at Elon University usually involves one faculty member mentoring one or more students, although recently this has been expanded to include co-mentoring models (e.g., see Ketcham, Hall, & Miller, 2017). Students are involved in the entire process, from topic refinement to literature review, data collection, analyses, and dissemination. The students enroll in designated research courses and faculty mentors receive compensation. Some students gained added support

from programs such as the Honors, or Multifaith Scholars programs, or the Lumen Prize, with financial assistance that facilitates UR and study away/abroad.

Nearly 80% of Elon's students study away, most in short-term programs but increasingly in semester abroad programs. Study away and UR fulfill experiential learning requirements (students must have two in order to graduate), and students are increasingly interested in combining the HIPs of study abroad and UR.

Participants

Students who conducted faculty-mentored UR in a global context in two different academic years were identified through contact with their faculty mentors and through snowball sampling techniques, in which they also named friends who had conducted UR in global contexts. Seven male and 10 female students participated in one of four focus groups. The sample was predominantly white and featured two international students. Other types of diversity (e.g., socioeconomic status and religious identity) were not investigated. The participating students represented many different majors, including biology, political science, international studies, communications, religious studies, anthropology, human service studies, and more. No financial incentives were offered for participation, although food and drinks were provided during the focus groups.

Procedure

The research was approved by the Institutional Review Board (IRB) and all participants signed a written consent form before participating. Students were invited to join focus groups of three to six members, along with a facilitator and a note-taker. The primary questions can be found in Appendix A. Researchers asked follow-up questions for clarification or elaboration. The duration of each focus group was approximately one hour. The focus groups were audio-recorded for subsequent transcription and analysis.

Coding

Focus group responses were transcribed verbatim and coded using traditional conventions of qualitative analysis by first identifying major themes, and then drawing connections between emergent themes in an iterative process (Strauss & Corbin, 1990). After common themes were identified, we categorized them in alignment with the two primary areas of mentoring: instrumental and psychosocial. We then selected quotes for each of the primary coded themes in the analysis.

Results

The results are presented below with quotes from the students. The findings are organized in terms of perceived benefits and challenges framed within the broad categories of psychosocial and instrumental mentoring. We offer recommendations that were derived from the respondents, the literature, and our institutional context. The recommendations are exemplified in a case study focused on a multidisciplinary research group in which faculty mentors scaffold students' knowledge and experiences through a series of instrumental and psychosocial mentoring practices.

Students' Perceived Benefits

Instrumental and psychosocial themes were often blended in the students' responses, but overall students focused more on instrumental gains. Interestingly, this corresponds with prior research showing that faculty place more emphasis on the instrumental benefits over psychosocial gains when asked about the impact of UR (Vandermaas-Peeler, Miller, & Peeples, 2015).

1) *Academic gains*. Although the perceived benefits were most often focused on learning, this was often blended with personal gains such an increased sense of confidence and passion for the topic. The following four student quotes illustrate the importance of UR for their academic development.

"And I can definitely say that doing my research abroad was top three, top two of the best, most rewarding, most incredible things I've done. And I really mean that. The time that I spent in those Mayan communities, day in and day out, talking to people, seeing the things that I had studied, seeing the things that I had not studied, seeing the things that I had studied that turned out not to be true was mind-blowing."

"The most learning I've done has been through my research project … because you're taking so much initiative in your own learning …. it's something that you are passionate about and you're investing your own time into it … who knew that four years ago I would be passionate about [the country's] mythology."

"I think it's been the most influential experience of my Elon career and I'm so happy that I had the opportunities that I did here and I think that I am a very different person academically but also just as a person because of doing it and I'm really grateful for that."

"For me I just felt like I learned so much more about the culture and society than I ever could from reading or learning in a classroom because I was interacting with these people in various settings so it wasn't just academics. It was also domestic everyday life. It was going out with friends and that really showed me a side of [the country] that I didn't expect and it really changed my conclusions."

The students' responses reinforce the importance of mentored UR experiences for academic engagement, and also highlight the personal development they experienced by conducting UR in a global context. These results emphasize the blended nature of psychosocial and instrumental gains and suggest the need for mentoring practices that support personal and professional development (Shanahan et al., 2015; Vandermaas-Peeler, Miller, & Peeples, 2015).

2) *Networking*. Students often reported benefits of UR for professional skill development and future networking. Facilitating professional networking opportunities is another salient mentoring practice identified by Shanahan et al. (2015).

"I'm really excited to have done research because I do want to turn that into a career of diplomacy work in the Middle East and having that opportunity to research as an undergrad and be globally engaged in that, as well as linguistically, culturally, religiously, was really beneficial … I've already seen the connections and networks I've made."

3) *Global learning*. Students reported learning about new perspectives, breaking out of the university "bubble," and reflecting on their own circumstances vis-à-vis other people and places, as depicted in the following quotes.

"We often get so comfortable we forget where we are and we do not realize the things that might be different in the world and the ways people can think and feel differently. If you are conducting a project that requires you to go to another place, interact face to face with these people, really understand and immerse yourself in the culture with people, it really helps you break out of your mindset and be able to look at problems … from different perspectives… And also enrich your own perspectives on life and help you understand what it is that makes you and understand the way you look at the world and never really thought about it."

"I benefitted from it personally because it really helps me locate learning about, especially world religions, helps me locate my own religion and value system in a very specific

geographical and historical context that I feel like my parents don't see. Like they can't take a step back and see how our religion is a very Southern American late 1800's emergence of a movement. Whereas I can see that now and I can see where my own value system comes from."

"So there are all these great ideas about Amazonian Indians being the protectors of nature and blah, blah, blah – which is partially true. But the reality is much more complex than that and you don't realize that until you see the different layers of peoples' identities and the struggles that they really face. And sometimes you have to go work for the oil company because you can't make any money."

In their responses, students reported on their developing understanding of the complexities of identity and culture. Their responses showed evidence of cultural humility, a form of cultural sensitivity that includes nuanced reflection on one's own place in the world in relation to others (Kumagai & Lipson, 2009; Tervalon & Murray-Garcia, 1998).

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Students' Perceived Challenges
When students discussed their primary challenges, it was clear that although they anticipated that participation in UR would be demanding, research conducted in global contexts presented additional, unanticipated hurdles. This was heightened by the fact that students in our focus groups were not typically accompanied by their mentors during their study away experiences. Instrumental and psychosocial challenges are presented separately below, although they were often interrelated in the responses.

Instrumental Challenges
1) *Preparation*. Engaging in strategic pre-planning is the first of the 10 salient practices identified by Shanahan et al. (2015) and involves mentor responsivity to individual differences in the students and projects. Unfortunately, many of the students did not feel adequately prepared to undertake their research off campus. For example, one participant noted that practicing interview techniques in advance would have been helpful. Another noted that while traveling to the site in advance may not always be feasible, it would be extremely beneficial.

In addition to methodological preparedness, many students cited complications with navigating the IRB process when studies included human participants. These were context-dependent and their successful resolution depended heavily on the mentors' experience and expertise. In some cases, governmental procedures can take months to be processed. Research visas may also be required.

"I tried to set myself up for a success in the amount of work that I planned . . . to do. But I know one thing that ...was kind of difficult was I was trying to figure out if I needed IRB approval because I was doing interviews. And then I had to figure out if there was something that I had to do to have UK approval since I was going to be interviewing people abroad. And I really didn't have a good resource to find that out . . . that was a whole big process and it really kind of came up quick to my departure time. So that was . . . really frustrating and really nerve-racking during wintertime because I thought I had it all set and then I might not have. It worked out."

"(talking about getting IRB consent forms signed at the research site) And they thought I was

a student posing as a journalist or a political person who was going to use their signature against them because they were illegal miners . . . . So those forms unfortunately set me back. . . . I wish I had been briefed more or gotten more information on why those signatures are so important and in terms of consent and the different ways because I think I lost a lot [of participants] that I could have gotten just because they had to sign them. And I had to get permission from the chief to be in the village and that was good. "

This student offered suggestions for advanced planning:
"I would also like to emphasize a very important point on just how important it is to understand the culture and the mindset of at least the region or the people you are studying or in which you are studying. Subscribe to a newspaper in that country, follow Facebook pages. Most importantly, I would say visit the country itself and interact with the people themselves . . ."

2) *Feasibility and scope of the project*. Most students reported that they hadn't realized how lofty their research goals were compared to what they were actually able to accomplish in the field. For example, one noted that she was hoping for 25 participants but getting half of that number proved incredibly challenging. Although seasoned researchers will see this as "par for the course," these high-achieving students reported that their uncertainty about what would constitute reasonable research productivity generated significant anxiety. In addition, they described experiencing challenges related to linguistic competency and access to appropriate information and resources.

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"It was really hard to work in the [Spanish] databases and try to figure out their systems and have communication pre-set up with some of the places. So . . . being flexible and just ready to roll on your feet and taking the most of opportunities that just kind of pop up was very useful. I got most of my sources from used bookstores and from flea markets. So it involved a lot of digging and I depended greatly on my host family to let me know where the places were, to take me to those places and my host mom was great in saying like I remember some of these magazines from when I was that age and these are some things that you might want to look at."

3) *Specific mentoring expertise*. A few students had trouble finding a mentor with the appropriate methodological or regional expertise, which proved detrimental to the research process. In all cases this resulted in students reporting that they did not have adequate knowledge about the research methods and/or the cultural communities with which they were working. In the first quote the student grappled with insufficient methodological and field experience. The second student (and mentor) failed to understand the importance of gifts in one indigenous community he planned to visit. In the third example, the student struggled to find information and gain access to resources but a guest speaker in one of her study abroad classes was able to help make a connection to local archives.

"I guess the crux of my struggle was ethical/methodological concerns around how to conduct

an ethnography because I had had some preliminary talks with [a professor on campus] about how do you develop rapport with the community, how do you integrate even in a short period of time—like a month is not nearly long enough to really develop as strong relationship with the community as you would like, which is partly why I've tried to go back . . . . So I struggled at times knowing exactly how to integrate to the community and then how to explain to some of the people that I was interviewing what's the point of what I was researching."

"But I wish I would have known how important gift giving was in the [cultural community] beforehand because I had gotten a small gift, like a little bowl or something, for my family, but then I met an anthropologist who had been doing work in the area and he was like, "Dude, you totally have not given enough gifts. . . . You can buy an umbrella at the supermarket for like five dollars. That is the worst gift."

"I also talked with many professors while I was there. I had one class that was through the study abroad program and we had several rotating guest speakers come through and one of them was a psychologist who worked with the Catholic Church organization that was very pro human rights and through her I was actually able to get access to the [church] archives and they're pretty much the only place in [the country] that has a substantial collection of magazines."

Psychosocial Challenges
In addition to the anxieties interwoven in the above themes, students reported the following socio-emotional challenges.

1) *Earning trust and respect*. The students noted that this was one of their most difficult challenges. Women sometimes reported encountering sexism and disrespect as researchers. Some students were not given access to materials (e.g., library archives) because they were undergraduates. Several students also noted that they had expected to be accepted as a researcher because they were a member of the cultural community in which they were working. However, this depended on the research context, as in the case of the first student below.

One young man who was studying the medicinal use of plants reported that:
"In my village it was a lot harder for me to get people to answer my questions because I am Christian and they know my affiliation with the church. People practicing traditional medicine with trees ... are seen as doing magic stuff ... like using spirits like natural forces that don't align with what the church believes. So it was like (I was) considered a spy trying to get the information from them to the church."

Another woman working in her native cultural community reported:
"I experienced a lot of identity crises when I went back and the topic itself was emotional for me. I don't go back alone often to [the country] . . . I haven't lived [there] for so long so that added a whole other set of questions for me and I was encountering sexism and blatant disrespect of my identity as a researcher. Sometimes my research project was taken as like a joke and it just - I felt like there was nowhere to go."

2) *Health and well-being*. Several students reported health challenges that impacted their ability to conduct the research while they were participating in study away, and others identified the loneliness of doing scholarship abroad (alone) as a significant challenge. Sometimes the research topics influenced the students' psychosocial well-being. They noted that ethnography can be emotionally demanding, but that this aspect of research was seldom discussed by mentors who may have

focused more on instrumental issues. A student conducting research in a remote Ugandan village stated:

> "I found myself unprepared for the emotional challenges of being alone in a different culture with limited opportunities to connect with the outside world. None of the villagers spoke English so, beyond my translator and a few other staff, I was unable to communicate with others."

3) *Pedestal culture*. Some students noted that the university (faculty and administration) focused almost exclusively on the products and final accomplishments of students conducting UR, but never acknowledged the process. This creates a false sense of the ease of the process of conducting UR, particularly in global contexts.

> "There is a culture at Elon that puts students on pedestals and whenever we do talk about their accomplishments it's … always like we (focus on) the product … in a way that's very detrimental to students who want to be like the students they read about and the students they're hearing about … I think it often glazes over all the other anxiety issues with everything related to collecting data."

Based on students' reported benefits and challenges of conducting faculty-mentored UR in a global context, we offer several recommendations in Table 1. These recommendations are described in greater detail in the context of the case study that follows.

Table 1
Recommendations for Fostering High-Quality Global Undergraduate Research

1. Create a research community. • Form disciplinary or multidisciplinary regional research groups with multiple faculty mentors and research students (see the case study below) • Scaffold peer mentoring across cohorts • Provide preparation and ongoing support through classes and programs in addition to individual mentoring • Consider talking with alumni as a useful resource
2. Integrate local and international cultural experiences. • Observe faculty and advanced peers doing research in local settings • Develop disciplinary skills and knowledge • Foster cultural humility
3. Make research more visible – and authentic – to the whole community. • Share information about research benefits and challenges with the university community through social media, admissions, etc. (e.g., creating a "What to know before you go" video of students' experiences) • Showcase failures as well as successes (e.g., "Phoenix Flops" on Elon's campus, a student-developed grassroots effort to make failures public and share coping strategies) • Create innovative events (e.g., "Scholars' Table," a series of themed dinners in which students from multiple disciplines reflect on the research process)

Case Study: South Asia Research Group at Elon (SARGE)
Founded in 2016 by a faculty member with expertise in the South Asian religions to facilitate and support regionally focused UR, the South Asia Research Group at Elon (SARGE) demonstrates the

effectiveness of embodying and integrating the recommendations related to UR in global contexts enumerated above. In the context of this case study, it is clear that blending instrumental guidance with psychosocial support in a research group that both promotes peer mentoring and relies on the expertise of several faculty mentors as elements of its scaffolded model can produce powerful results. This multidisciplinary research community, which is supported by a modest Mentor Development Grant awarded by Elon's UR program, consists of six to eight students who are carrying out extended faculty-mentored UR projects in India, Nepal, Sri Lanka or in South Asian diaspora. The two faculty mentors are both trained as South Asianists (one as a historian of religion and the other as an anthropologist of religion) and regularly conduct their own research in India; in addition, they co-teach a short-term study abroad course there (Allocco & Pennington, 2013). While some of the 14 undergraduate researchers who have participated in SARGE have been directly mentored by these two faculty members, many are not religious studies students but are instead majoring in disciplines as diverse as political science, policy studies, international and global studies, strategic communications, anthropology, and public health, among others. SARGE students regularly comment on the ways in which the multidisciplinary nature of the cohort inspires enriching and challenging conversations. For example, one student observed that "a SARGE colleague who was researching feminism in Indian legal systems made me think critically about my own views as a feminist, especially while studying gender-liminal people living in India."

This disciplinary diversity also offers the opportunity to bring additional mentors from these departments into the SARGE meetings to provide appraisals of and feedback on students' in-progress projects, which range from infant feeding practices among Bhutanese women in North Carolina, to gender and authority in yoga traditions in India and the United States, to quality and access to education in Nepal, and religious motivations of NGO workers in post-conflict Sri Lanka. This multidisciplinary faculty input has contributed to the goal of creating an intentional research community and has proved particularly formative as SARGE participants have prepared for conference presentations. In addition to offering students a focused context for interactions with faculty outside of the classroom and exposing them to the multiple perspectives of a cadre of expert scholars, the occasional participation of these professors has the added benefit of fostering mentoring excellence by deepening lateral relationships among mentors and providing a framework for more experienced mentors to model and share best practices for and with less experienced ones.

SARGE meets for 90 minutes at least once per month and – in seasons where students are preparing for conferences and symposia – convenes on a weekly basis, offering students intentional and intimate mentoring relationships with faculty teacher-scholars. Some of these sessions are organized around a pre-selected topic, such as strategies for semi-structured interviews, writing ethnographic field notes, cultural humility, or power dynamics and ethics in the research process, and all feature a structured round of updates on each researcher's in-progress project. As complements to the more explicitly pedagogical components facilitated by the faculty mentors, more junior members of the group reported being inspired and catalyzed by these updates and "reports from the field." In her reflections, one of them remarked, "As a student in the preliminary stages of my projects, my SARGE mentors would encourage me to share my achievements throughout my planning process. Additionally, my attendance at meetings allowed me to look to older students who were further along in their projects and see ways in which I could integrate different angles that seemed successful in their projects." Another participant called this a "constructive space," where SARGE students "created and produced knowledge together with their mentors. As one of the strategies designed to foreground the research process (as opposed to focusing primarily on outcomes), the faculty mentors also contribute updates on their own research projects and are deliberate about not only sharing successes. They note slowed progress, setbacks, and other challenges as a way of modeling the realities of a project's timeline, with its high and low points. This strategy aligns with the emphasis on showcasing failures recommended above. Indeed, some of the

SARGE meetings that students have regarded as most helpful and powerful were ones where they were invited to share the challenges and obstacles that have impeded their research, whether these were difficulties in establishing rapport with participants, navigating cultural norms and expectations in research communities, gaining access to specific individuals, populations, or resources in their fieldwork contexts, or with linguistic competence. One student researcher, for example, put it this way:

> "One of the most beneficial aspects of SARGE meetings was having a designated space in which to discuss the challenges of conducting research on a culture that may not be your own. In some of these meetings, I was able to vent my frustrations about my own research, especially how I was not able to gain access to the group of individuals I was conducting my research on due to study abroad and language restrictions. While expressing these concerns with my peers, they not only provided a source of encouragement, but also suggested future research avenues that would lead to useful interactions with research communities. I was also able to hear the struggles of conducting ethnographic fieldwork, which not only enriched by [my] own perspective and research, but also allowed me to gain perspectives I would not have had the chance to otherwise."

In these conversations, students look not only to the faculty mentors for assistance but also to the members of their peer network, who prove themselves adroit in evaluating specific tactics and suggesting approaches drawn from their own research experiences that their colleagues might be able to apply successfully. The collaborative nature of this research community aspect was underscored by one student, who commented, "SARGE was a haven for us as researchers to come and problem-solve. As undergraduate researchers, we each had plenty of obstacles, and the SARGE community worked together to overcome them. We helped one another through the whole process: from finding relevant theory and case studies, picking through field notes to find claims, and becoming confident enough to present our work." More senior research students effectively serve as leaders in this research community and, as such, peer mentoring is scaffolded across more- and less-experienced strata within the cohort. According to one student, "Because I joined SARGE as a junior, I had the opportunity to be a part of the cohort as the youngest member, and to look up peers who were a year ahead of me. During that year, I celebrated my friends' many successes and realized that I, like them, had the potential to present at conferences, publish articles, and be accepted to graduate programs." Importantly, and in line with the recommendations provided above, the research community is extended to include SARGE alumni, who mentor participants on an occasional basis by sharing research models and offering targeted research assistance (e.g., successful grant applications and frank evaluations of the utility of relevant software). One alumnus draws powerful connections between his experiences in this research community and his current graduate studies:

> "Academically and personally, SARGE enriched my experience at Elon more than I ever thought possible. As someone who knew he wanted to go to graduate school after finishing the bachelor's degree, it was critical for me to have a space where I could comfortably discuss research, including what I wanted to research in the future, with others from diverse perspectives within my subfield. My experience in graduate school would not be as robust as it is currently without SARGE providing the foregrounding for me to critically engage in conversations about research, methodology, and the field of religious studies."

As their cohort has developed and their relationships deepened, students have also proved more willing to articulate concerns about and identify roadblocks in their relationships with their research mentors and to solicit advice about how more senior SARGE members have handled the rigors of transcribing interviews and coding data. Students have consistently narrated how hearing that other

participants – especially those they admired as skilled and successful researchers and mentors – face challenges similar to their own effectively bolsters their confidence about their own research acumen. These interactions have fostered feelings of camaraderie and solidarity within the cohort, thereby creating a true research community, and buoyed students' commitment to high-quality research products. One student summed it up well when she noted, "We became comfortable with one another as colleagues and friends, and that is what made SARGE truly powerful."

These high-achieving student researchers repeatedly underscore how important it is to hear not only about grants received, abstracts accepted, and fieldwork successfully completed, but also to have SARGE members reveal feelings of intellectual inadequacy, share stories of fieldwork misfires, and report on conference submissions declined, and to offer encouragement and motivation when energies were flagging, emphasizing the need for psychosocial and emotional support and mentoring. In the words of one SARGE participant:

> "I remember feeling comforted and validated in my own struggles as I listened to my peers voice their doubts, worked beside them as they finished their papers and PowerPoints the night before a conference, and learned that their accomplishments did not come without some setbacks and challenges. The other members of SARGE became my most influential peer mentors and role models at Elon, because they taught me how to persevere through difficult times, how to most productively interact with mentors and professors, and how to balance other aspects of life at Elon."

This psychosocial mentoring offered within SARGE is, of course, paired with strong instrumental mentoring and a focus on high-quality research products and outcomes. Most students are enrolled in multiple semesters of designated research courses, wherein they receive significant preparation and ongoing support, and produce annotated bibliographies, literature reviews, policy papers, and research papers. As their research progressed, several SARGE members have written grant proposals to secure funding to support immersive ethnographic fieldwork in India, Nepal, and Sri Lanka, as well as in communities of South Asians here in the United States, which result in detailed field notes and interview transcripts. Model IRB applications and conference abstracts are shared and workshopped within the peer network, as are the more public-facing, journalistic pieces that some students produce about their research findings. Mentors as well as peers assist in editing and polishing applications, abstracts, and conference presentations, and institutional support has made it possible for SARGE mentors to attend conferences where students from the cohort are presenting. In its first two years these 14 students presented a total of 22 papers at academic conferences. Two of them received awards for their papers and two others have had articles accepted for publication in competitive disciplinary journals. Nine of them received funding to support the development and presentation of their research as part of symposia at Elon's Spring Undergraduate Research Forum (SURF), and ten SARGE members have participated in the Scholars' Table dinners described above, which aim to share information about the UR process with peers. Collectively, these initiatives promote UR and make research more visible within the university community (see Table 1), and thus contribute positively to the campus' intellectual climate. These students' UR experiences have paved the way for an array of prestigious, globally focused post-graduate opportunities, including Fulbright fellowships and grant-supported graduate study in the United States and abroad. As a case study, SARGE demonstrates how institutional commitments to high-quality UR, study away, and global engagement can be leveraged for the benefit of student learning and to deepen academic challenge. Even more significantly, this interdisciplinary, regionally focused research group – what one student describes as "a close-knit community where students share in the research process beyond earning awards and celebrating accomplishments to offer holistic support and encouragement throughout all aspects of undergraduate research" demonstrates the power that combining instrumental guidance with psychosocial support has in producing an inspiring and accomplished cohort poised to make the

most of mentored UR in diverse global contexts.

Conclusions

Although significant research has focused on students' development in global learning experiences, and many studies have examined the impact of participation in UR on student outcomes, investigations of the two HIPs as concurrent experiences are scarce. The present study aimed to contribute to the literature by examining students' perspectives on the opportunities and challenges they experienced when conducting faculty-mentored UR in diverse, off-campus settings. The results of the focus groups indicated that for undergraduates, developing their identities as researchers and scholars was very challenging in a global context. However, the process of conducting research was seen as one of the most beneficial experiences of their undergraduate careers, and UR conducted in a global context was associated with additional perceived benefits related to encountering, appreciating, and respecting different perspectives. The findings highlight the need for mentoring practices that combine psychosocial and instrumental functions. As presented in the SARGE case study, developing collaborative, multidisciplinary research communities in which faculty and peer mentors co-construct knowledge and offer socio-emotional support can lead to high levels of success in the research process and in scholarly outcomes.

The results also suggest the need for further, more extensive research in combining or stacking HIPs such as UR and study abroad/away (Banks & Gutiérrez, 2017). Our findings are based on a small, relatively homogeneous sample from one institutional context in which UR is a highly valued and well-supported activity. Many of the students were members of scholarship programs offering significant financial support for their travel and conduct of UR. The benefits and challenges experienced by students in other institutional contexts, with and without significant programmatic support, should be examined in future studies. Additional research on the specific mentoring practices required to support high-quality UR experiences in global contexts is crucial. The perspectives of faculty mentors should be incorporated into future research as well.

As reported in the 2014 Gallup Purdue Index Report, college graduates who had a supportive and encouraging mentor in college reported greater well-being and more engagement in their jobs. The quality of the mentoring is critical for deep and long-lasting learning (Johnson, Behling, Miller, & Vandermaas-Peeler, 2015; Kuh & O'Donnell, 2013). Although less is known about excellence in mentoring UR in global contexts, our findings support extant scholarship highlighting the salience of instrumental and psychosocial functions in UR mentoring practices (Johnson, 2015; Shanahan et al., 2015; Vandermaas-Peeler, Miller, & Peeples, 2015).

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Appendix A: Questions for focus groups
Please briefly describe your project and the global setting in which you conducted your research.
What preparation was done in advance?   Was it adequate?   What was most helpful and what suggestions would you have for faculty mentors and students who are planning a project like yours in the future?
Did you go through Elon's and/or another institutional ethics review board?   Please describe that process.
What are the benefits to conducting undergraduate research in a global (international or national) setting?
What are the key challenges that students face when conducting undergraduate research in a global setting?
What are possible supports that administrators and faculty mentors can and should provide to students to enhance their success and minimize these challenges?
Would student support be beneficial?
How might peers mentor each other before, during or after conducting UR in a global context?
Is there anything else you would like to add on this topic?