

**Original Article:**

**GRADUATE AND UNDERGRADUATE STUDENTS UNITE:  
INTERCULTURAL COMPETENCE IN  
A MENTORING RELATIONSHIP**

Isabella M. Kirshteyn  
*University of Florida, USA*

Huseyin Uysal, Ph.D.  
*Knox College, USA*

**Abstract**

This evidence-based practice paper investigates how an intercultural mentoring relationship can flourish and be maintained. Also, it attends to the role of intercultural competence in undergraduate research. As the participants of this collaborative autoethnography, we, the authors, reflect on our mentoring practice for 9 months across 16 sessions. We show how our roles as mentor and mentee evolved gradually with time and through inquiry. Moreover, we demonstrate how we avoided possible interruption to our mentoring relationship by maintaining transparency and clear communication. Using our lived experience, we propose a model for intercultural mentoring practices in undergraduate research and provide implications of using graduate-undergraduate student mentoring for research-oriented universities.

**Keywords:** graduate student, intercultural competence, mentoring,  
multicultural education, undergraduate research

---

AUTHOR NOTE: Please address all correspondence to Dr. Huseyin Uysal, Knox College, Department of Educational Studies, 2 East South Street, Galesburg, IL 61401, USA. Email: [huysal9@gmail.com](mailto:huysal9@gmail.com)

## INTRODUCTION

Undergraduate research is a recent development within the United States, only dating back to the 1990s (Kinkead & Blokus, 2012). Institutions of higher education support the practice for a variety of reasons, including undergraduate retention, training for graduate studies (Bauer & Bennett, 2003; Kinkead, 2011; Nora & Crisp, 2007; Russell et al., 2007), satisfaction from the overall experience as an undergraduate student (Bauer & Bennett, 2003), and encouragement for learner agency and independence (Thiry et al., 2011).

The Council on Undergraduate Research (2021) defines undergraduate research as “an inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline” (para. 4). Similarly, according to Kinkead (2003), it is an academic endeavor that falls into the category of “scientific inquiry, creative activity, and scholarship” (p. 6). It is typically conducted under the supervision of mentors who may be a faculty member, post-doctoral researcher, graduate student, or senior undergraduate student (Webber et al., 2013). The ideal outcome for mentoring is that undergraduate students develop autonomy in the later stages of mentoring (Laursen et al., 2012).

In undergraduate research, students make the most of their learning experience. However, it is not an ex parte collaboration. Previous studies (Brown, 2016; Carsrud, 1984; Dolan & Johnson, 2009) reported on the benefits of graduate students serving as mentors to undergraduate students. Graduate students as mentors benefitted from the mentoring relationship in terms of scholarly identity development and communication skills (Reddick et al., 2012). Therefore, one can speak on the reciprocal benefit of the mentoring relationship between undergraduate and graduate students. In its rather traditional form, Johnson (2016) defines mentoring as:

*“...a personal and reciprocal relationship in which a more experienced (usually older) faculty member acts as a guide, role model, teacher, and sponsor of a less experienced (usually younger) student ... [and] ... provides the mentee with knowledge, advice, counsel, challenge, and support” (p. 23).*

For the purposes of this study, we adopt the definition of mentoring by Zellers et al. (2008), who approach it as a reciprocal learning experience that is “characterized by trust, respect, and commitment” (p. 555). We defy the traditional orientation that majorly assigns the mentee with the role of a passive learner. Instead, we claim that the mentee is in constant demand for support and challenges the mentor. The mentor is also active in facilitating a safe space for the mentee to ask questions (Dolan & Johnson, 2009) and providing professional, personal, and emotional support for the mentee to feel engaged in the discipline (Robnett et al., 2018; Thiry et al., 2011).

Given the increasing internationalization in U.S. academia, we highlight that intercultural competence is another key component of an efficient mentoring relationship. Adopting Deardorff's (2004) definition, we approach intercultural competence as "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes" (p. 194). Building on the existing literature, the current study aims to share our experience as the mentee and mentor by attending the role of intercultural competence in maintaining an efficient mentoring relationship. Our goal is to understand the challenges and strengths of undergraduate research with the involvement of international graduate students as mentors. We present implications for supporting undergraduate students at research-oriented universities through culturally responsive practices of mentoring.

### **Literature Review**

In undergraduate research, graduate students have a special status—almost like a bridge between faculty and undergraduate students (Meyers, 2012). It is not only the mentee but also the mentor who benefits from the mentoring process. Dolan and Johnson (2009) found that mentor graduate students expressed their benefits in terms of career preparedness, instructional development, socioemotional growth, and interpersonal communication. Indeed, mutual benefit and shared commitment are important for efficient mentoring (Zellers et al., 2008).

Certain characteristics of an ideal mentor and mentee are described in the literature. For example, mentees are ideally expected to be motivated to learn, open to feedback, honest, emotionally stable, committed, and resilient (Johnson & Huwe, 2002). Similarly, the personal traits of an ideal mentor are cited as respectful and empathetic to the mentee's interests and preferences (Santora et al., 2013) and showing a good sense of humor and friendliness (Cruz et al., 2020). In undergraduate research mentoring, mentor graduate students are sometimes seen as role models by their mentees who consider pursuing graduate studies (Leslie et al., 2005). Indeed, mentors' responsibilities are multiple, since they have the power and status to influence mentees to build their identities as ethical professionals (Handelsman et al., 2005).

Although the personality traits of the mentor are relevant, recent research often focuses on the quality of the mentoring relationship. Lenz (2014) found the mentee-mentor relationship to be more important than the identity of the mentor in helping the mentee with academic adjustment. As per Johnson (2016), both parties need to be invested in "a bonded relationship of long duration" (p. 21); they need to be in agreeance on their roles for an efficient mentoring relationship (Storrs et al., 2008).

Mentoring relationships evolve in time and can be strengthened with the advancements in the professional lives of the mentees and mentors (Hackmann & Malin, 2020). However, certain conditions need to come together for the betterment and efficiency of the mentoring relationship. Clearly stating expectations from the mentee is a key aspect

of efficient mentoring (Kilgo et al., 2015) and can be an issue in an intercultural mentoring relationship (Limeri et al., 2019). Also, according to Malen and Brown (2020), taking mentees' insights and values into consideration is essential for efficient and individualized mentoring. Mentors should pay attention to the psychological needs of the mentee (Vandermaas-Peeler et al., 2015). Malen and Brown (2020) found that mentees appreciated "the blend of candid critique and personalized support they received" (p. 495).

Previous studies highlight interpersonal skills and multicultural awareness as a component of efficient mentoring (Chan et al., 2015; Sawatzky & Enns, 2009; Watson et al., 2009). For example, Cruz et al. (2020) found that humanistic and culturally responsive mentoring made Hispanic students feel more comfortable around mentors and in this case feel more prepared for college. Limeri et al. (2019) found that international graduate students as mentors might have concerns about their efficiency to help undergraduate students in the U.S. One major justification by the mentors was that they completed their undergraduate studies outside the U.S. and might not have accumulated sufficient knowledge about the norms in the U.S.

Although the nascent body of literature indicate the positive effect of mentoring on intercultural competence (Giedt et al., 2015; Kilgo et al., 2015), not much is known about the intercultural dynamics in mentoring. Specifically in undergraduate research, there is a need for examining the factor of intercultural competence in best practices of mentoring. The purpose of the current study is to contribute to the field of multicultural mentoring through our reflection on our mentor-mentee relationship in an undergraduate research collaboration.

## METHOD

This section explains the study design, including the context in which it was conducted and the positionality of the participants. Also, it presents the steps of the mentoring collaboration, which is followed by a discussion of the trustworthiness and credibility of the study.

### Study Setting

The setting of the study is the University of Florida, a public institution of higher education in north central Florida. According to the classification of the Carnegie Foundation for the Advancement of Teaching, it is a Tier One research university (R1), which encourages research involvement for graduate and undergraduate students.

The Center for Undergraduate Research is a unit of the university that is dedicated to facilitating undergraduate students who seek opportunities for research involvement on campus. Also, it offers services to connect faculty or graduate students with undergraduate students for mentorship opportunities. As per their website, the Center views mentored

undergraduate research as an opportunity for research involvement through critical inquiry, self-directed learning, and creativity. Accordingly, their mission is “to foster a culture of research that encourages all students to include a research component as a critical part of their undergraduate experience.”

On their website, the Center published a flier that Huseyin created as a call for volunteer undergraduate researchers for his project that aimed to understand what effective mentorship meant in conducting qualitative research as an English learner with (former) English learners. Aligned with the mission of the Center, the flier had a section that described the intended collaboration as a disciplined inquiry which aimed to involve the mentee as the builder of knowledge rather than a receptive learner.

In three days after the publication of the flier, Isabella contacted Huseyin to show her interest in understanding “this typically misrepresented and overlooked population” and described her positionality as “once an ESL [English as a second language] student in rural Ohio” (I. M. Kirshteyn, personal communication, February 2, 2021). In this sense, the Center functioned as a valuable venue for Isabella, who sought mentoring support and took the first step for learning research with an intrinsic motivation.

### **Mentor and Mentee as Participants**

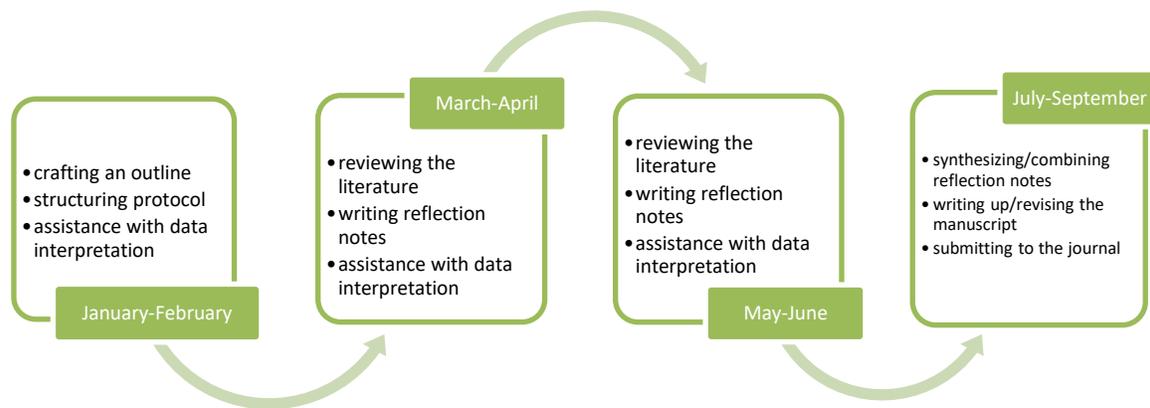
As the participants of this collaborative autoethnography (Chang et al., 2016), we reflect on and share our experiences and observations in our mentee-mentor interaction. We describe our positionalities in this section briefly. Our major commonality was our student status while our first languages and cultural backgrounds were different. While we were conducting this study, both of us were affiliated with the University of Florida.

Isabella had the mentee role during this collaboration. She was an undergraduate freshman majoring in biology. She was working in a plant breeding and genomics laboratory during the 2021 spring semester. She also participated in an internship in Israel during the summer of 2021. Isabella is a first-generation American with Slavic and Middle Eastern roots. She grew up in a Russian-speaking household, and Russian is her first language. She identifies herself as Russian and Semitic.

Huseyin served as a mentor during the design of the study and the publication process. He was a doctoral candidate, who was majoring in Curriculum and Instruction with a specialization in ESOL and Bilingual Education. Besides his student role, he was also working as a graduate research assistant during the spring semester of 2021. In the summer of 2021, he was working virtually as a research intern at Texas Appleseed, during which he advocated for historically underrepresented and underserved populations at K-12 schools in Texas. Besides his role as an emerging researcher, he taught undergraduate-level courses in Turkey, the U.S. and Colombia. He identifies himself as a multilingual speaker of Turkish, English, and German. He was raised in a Turkish-speaking monolingual family. As an international student from Turkey, he lived in Florida for 6 years.

### Collaboration Process

Our collaboration process started with introductory meetings, and continued with bi-weekly meetings, which were followed by online collaboration on a shared document and exchange of emails. The focus of this 9-month collaboration was qualitative study design and data analysis. Our sessions as well as writing the manuscript followed the timeline below.



**Figure 1.** Timeline of our mentoring and writing collaboration in 2021.

Rather than adopting an apprenticeship model (Laursen et al., 2012), we considered the mentor-mentee relationship as a collaborative learning experience (Vandermaas-Peeler et al., 2015). Borrowing the words of Malen and Brown (2020), we approached mentoring as “an inclusive, reciprocal, and ongoing process” (p. 481). In this sense, we followed a constructionist process through which we built an outline of ideas and kept our writing and analysis in progress collaboratively.

Additionally, we acknowledge that an effective indicator of successful mentoring is to create a community of practice that offered an interactive and engaging learning experience (John & Creighton, 2013; Seymour et al., 2004). For us, this aspect remained as an area of improvement because two other mentees that showed interest in the initial bi-weekly sessions had to leave the project at its early stages. Therefore, this collaboration was based on one-on-one mentoring.

### Initial Meeting

Our first virtual meeting was intended as an opportunity to get to know each other and build trust with each other. In early January 2021, we started by talking about common problems (e.g., challenges of being a student during the COVID-19 pandemic). Then, we collectively set the ground rules (e.g., confidentiality, mutual respect, and punctuality) and agreed to normalize exposing weaknesses and being vulnerable. The session also focused on discovering our strengths as learners and researchers. Furthermore, we determined our

roles in forecasting new learning and discussed what it meant to show commitment to our project. We agreed to be open to critique of ideas and willing to gain new perspectives.

### **Bi-Weekly Meetings**

Starting in late January 2021, we set up virtual meetings twice a month and used most of our time for learning the process of qualitative research. Given the importance of setting up regular meeting times for efficient mentoring (Foote & Solem, 2009), we agreed on this bi-weekly commitment. We followed a constructionist way of learning in a dialogic nature and discussed key constructs in qualitative research. The bi-weekly meetings were based on the idea of experiential learning and promoted individual reflection as well as mutual in-depth conversation about our learning experience (Kolb & Kolb, 2005). For practicing steps of data analysis (e.g., coding and interpreting), we used a sample dataset, which was a transcribed interview on multilingual identity that Huseyin had conducted for a separate project.

Toward the end of each meeting, the mentee was prompted to write down her thoughts about the session through a reflection task. The task was to respond to a list of questions in a protocol that aimed to prompt reflection on the mentor-mentee relationship. Toward the end of our bi-weekly sessions, we wrote our reflections individually and refrained from sharing to prevent biases. When we started our manuscript writing process, we discussed our reflections for the first time. In total, we had 15 bi-weekly meetings from January through August in addition to our initial meeting. In September 2021, we communicated mostly through email, and allocated most of our mentoring time to revising and submitting our manuscript to the journal.

### **Manuscript Writing and Submission**

We used OneDrive by Microsoft to collaborate on the manuscript. We highlighted and added notes on the same documents (e.g., articles, book chapters, reports) that we stored in a shared folder. Our mentoring relationship continued during our manuscript writing and until the end of our submission to the journal. Except for our individual work in writing the section about the study results, we collaboratively wrote and revised the paper.

Following the identification of the key studies by Huseyin, Isabella mostly summarized them by using a table that included sections such as methods, findings, and recommendations. Huseyin read the summaries and embedded comments about the parts that needed attention. Accordingly, Isabella revised the summaries to make sure that she did not overlook important details of their findings and design. To write a brief review of the literature, Huseyin bundled the summaries together thematically and outlined the introduction of the current paper as well as the literature review. Isabella revised these rough drafts in terms of organization, coherence, and language.

At its initial stages, this study was designed majorly by Huseyin. However, both of us took equal roles in laying out and writing the section about methodological design. In writing the findings, Huseyin facilitated an inquiry for Isabella to organize the outline of her report. However, the writing portion of it was completed individually. During a virtual meeting, we discussed the possible implications of the findings and brainstormed how we can present the conclusion of the study. We made a list of relevant recommendations and wrote them together by exchanging emails.

Lastly, for the submission process, we used the screen sharing feature on Zoom to look at the submission guidelines for several undergraduate research journals. After reading their mission statements, considering the information that they provided about the peer-review process, and closely looking at some of the most recently published articles, we reached a consensus on our target journal. Finally, Isabella completed the submission by using the guidelines for authors on the journal's website.

### **Trustworthiness and Credibility**

This study established procedures for systematic inquiry and took steps to maintain credibility (Charmaz, 2014). Using investigator triangulation was one of the measures we took to increase trustworthiness (Given & Saumure, 2008). Treating our email communication and virtual meetings as our data sources, we mutually maintained awareness of staying close to our data and constantly looking for evidence in the data for our interpretations. While reflecting on our mentoring experience during manuscript writing, we asked questions to capture different dimensions of an interpretation. Moreover, we cross-validated our interpretations by maintaining a constant conversation. Overall, we aimed to achieve a better understanding of our roles within our social circles and tried to pay attention to each other's values and beliefs.

## **RESULTS**

In this section, we provide our insights into our 9-month-long mentoring experience in the spring and summer semesters of 2021. To reflect the subjectivity of the statements and honor the voice of each of us as a participant, we report our insights in the first-person singular form. Each of us wrote our insights independently during the initial draft of this manuscript with the purpose of avoiding biases. In later drafts, we revised it together only in terms of language structure.

### **Mentee Insights**

Before starting this collaboration with Huseyin, I had a model of mentoring based on the support I had received from my sister while growing up. As first-generation Americans, my sister and I were often pioneers for our family, learning and exploring how



to do matters on our own. For example, when applying to college, my sister felt very lost because my parents were unable to help with the process—they had never even heard of tests like the SAT or the ACT. Throughout my life, my sister has often stepped up as my mentor, as my parents often lacked the knowledge and experience to help, since they grew up elsewhere. When I started receiving mentorship, I expected the relationship to be similar: the mentor provides guidance and advice on anything I needed help with.

My mentor and I collaborated entirely online, mainly through Zoom meetings and email. Emails were a quick, effective strategy for communicating small topics and tasks. However, for more complex questions, teleconferencing was a superior mode of communication. There were few challenges in working with my mentor. The cultural differences did not impede our ability to effectively work together. The main issue we sometimes encountered while interacting was miscommunication or developing an understanding of the foundational terms in qualitative research. The mentor often asked broad questions or gave very general directions. To avoid misinterpretation, I asked multiple subsequent questions in a dialogic manner to narrow down the task at hand.

The most effective way of efficiently working together with my mentor was simply to ask for clarification. When broad questions were posed, I asked my mentor to go more in detail about what was being requested. Often, I asked multiple questions about his question to make out what he truly intended to inquire. Huseyin tried to address the challenges by asking for my thoughts about the mentoring before we wrapped up our Zoom sessions. He tried to understand my expectations and took notes of my feedback.

Overall, I found my research experience with Huseyin worthwhile. Working with a mentor truly allowed me to grow as a student and individual. If there was ever a time when I needed guidance, support, or instruction, I was able to reach out to my mentor for help. I also learned a great deal about academic writing through this collaboration. The most valuable topic that I acquired skill in was citing sources in formal writing. My understanding of scholarly writing also grew, as I learned that the umbrella of academic articles encompassed a broad range of research, not just the stereotypical lab-based research that is often thought of.

### **Mentor Insights**

When I started our mentoring, I viewed Isabella as an emerging researcher and noticed her interest in learning qualitative inquiry. I think my curiosity about her schooling experiences as a first-generation American helped me build rapport with her during our initial meeting. I briefly explained to her my dissertation research, which focused on the identity negotiation of Spanish-speaking students who were identified as English learners. Some of the issues that had to do with standardized tests resonated with her and started a conversation about the experiences of students with immigrant backgrounds.

During our bi-weekly meetings, I observed my mentee's multiple strengths and took note of numerous strategies that I used to serve her as an efficient mentor. Before

sharing them, I need to start by discussing the challenges that I experienced as an international graduate student mentoring a U.S.-educated undergraduate student. Due to being in the process of preparing for dissertation defense and graduating, I had difficulty moving away from my researcher role and wearing my teacher or mentor hat during my collaboration with Isabella. In other words, I had to be intentional about highlighting my role as a good listener, to avoid looking self-centered or overfocused on my own research.

A helpful strategy for me to overcome PhD-student syndrome was to write researcher identity memos (Maxwell, 2013) after our bi-weekly meetings. This practice helped me reflect on the mentoring support that I provided and the way it was influenced by the layers of my identity. By reflecting on my earlier experience of coaching three international master's students from China in their thesis writing process, I had an opportunity to better inform my mentoring relationship with Isabella and gradually find my role as a mentor.

Another significant challenge for me stemmed from my emerging skills in clearly crafting my instructions. For example, as Isabella was reviewing the key literature on the mentorship by graduate students, I verbally described for her the layout of a typical scholarly paper (e.g., methods, results, implications, etc.). Then, I expected her to come up with a summary of at most 300 words for each study that she read. However, she had to email me and ask for a mental template as she was trying to figure out the type of summary task that I was expecting her to complete. From this difficulty, I learned that providing her with a table with the key components of a summary helped her complete the later summary tasks.

Another strategy that I deliberately followed was to engage my mentee in genuine inquiry. By discussing what objectivity means and what validity might look like in qualitative research, I made meaningful connections to our earlier conversations and readings that she completed. This way, I structured our conversations as an opportunity to increase self-awareness. Additionally, transparency was another significant characteristic of our mentoring relationship. It helped us maintain mutual trust and avoid misunderstandings.

For example, we had to extend the deadline that we set for submitting our manuscript to the journal due to some unexpected commitments that we had to undertake at the start of the new academic semester in late August. We mutually agreed on the extension and disclosed information about our commitments that became overwhelming and needed to be prioritized at that time. I observed that sharing successes and failures and being transparent about personal problems and frustrations helped our academic collaboration flourish.

As another critical component of our collaboration, I need to mention Isabella's rigor and consistency. When I provided her feedback on her revised drafts of the literature review, she revisited the indicated points and went through multiple drafts with patience. Another strength of hers was her agency. She managed her work and made decisions in her

writing independently. Also, she sent me brief check-in emails to ask about our writing collaboration multiple times. During our conversations, she actively contributed to the idea development and asked questions to clarify vague instructions.

Lastly, I observed Isabella's intercultural competence. She demonstrated a sense of cultural awareness in explaining to me certain issues that are unique to U.S. K-12 schools. As someone who was raised in the U.S., she used her parents' immigrant experiences to relate with me when I shared some stories with her about interviewing English learners and negotiating my researcher identity.

Overall, our mentoring relationship was based on rational dialogue, which avoided assumptions and normative language. We maintained mutual respect, and collectively created a safe space for sharing our thoughts. With the purpose of avoiding misunderstandings and contributing to the idea development process, each of us took an active part in structuring the mentoring relationship. In this sense, our mentoring relationship was different from a conventional understanding of mentoring, in which the mentor manages the process and assigns the tasks while the mentee is expected to complete the tasks.

### **Tying it All Together**

We drew from our experience and sketched a model for intercultural mentoring (see Table 1). The model has three components: evolving roles, transparency, and clear communication. We discuss each component below.

***Table 1. A mentoring model for developing an efficient intercultural communication***

Evolving roles	Transparency	Clear communication
<ul style="list-style-type: none"> <li>• Inquiry-based learning</li> <li>• Writing self-reflections</li> <li>• Writing researcher identity memos</li> </ul>	<ul style="list-style-type: none"> <li>• Expressing concerns</li> <li>• Empathy</li> <li>• Mutual trust and respect</li> <li>• Cultural relevancy</li> </ul>	<ul style="list-style-type: none"> <li>• Emailing and Zoom</li> <li>• Asking for clarifications</li> <li>• Avoiding assumptions</li> <li>• Mutually narrowing down instructions</li> </ul>

First, our mentoring practice was based on a mutual understanding that we would find our roles through inquiry rather than adopt assigned roles as the mentee and mentor. Our mentor-mentee relationship evolved over time (Hackmann & Malin, 2020). It took not only time but also reflection to excogitate on our responsibilities as the mentor and mentee. Scientific inquiry (Kinkead, 2003) was the main practice which we relied on for self-reflection and to encourage each other to reflect on our roles through dialogical negotiation.

We had a consensus on our mentoring relationship as a reciprocal learning experience (Johnson, 2016) with contribution from both of us (Zellers et al., 2008). Moreover, we maintained an awareness about the goal of our bi-weekly meetings, which was to help Isabella gain autonomy as an emerging researcher (Laursen et al., 2012).

Second, we agreed on the transparency principle in our initial meeting. This meant that we communicated our concerns as they arose. We often made disclosures at the end of sessions when we noticed any potential problems in our collaboration. This way, we built mutual trust and respect. Similarly, the main components of our efficient mentoring relationship were to consider the mentee's interests and insights (Malen & Brown, 2020) as well as trust, empathy, and respect for the mentee (Santora et al., 2013). Without major concerns about the shared interests and personality traits, which Cronan-Hilix et al. (1986) cited as important components of efficient mentoring, we maintained self-awareness about the differences in our understanding of the academic work and work style. We understood that we were shaped by our lived experiences and influenced by the culture within our disciplines of study, our families, and the environments in which we lived.

Therefore, we agreed to take this first step upon noticing differences in our way of thinking, working, acting, and writing: to ask questions and try to understand the thinking behind a behavior. This way, we recognized the role of cultural relevancy in efficient mentoring (Cruz et al., 2020) and avoided making judgments or hasty decisions. Besides the mentor's knowledge in the subject matter, we recognized that understanding the psychological needs of the mentee (Vandermaas-Peeler et al., 2015) and care from the mentor (Lamm & Harder, 2018) mattered in efficient mentoring. Accordingly, Huseyin asked about Isabella's progress in her coursework in his emails, although the emails focused on qualitative data analysis. Because of the transparency principle, Huseyin laid out a route map for finalizing the mentoring sessions and writing up the manuscript. Likewise, Gibson (2005) suggested that proactivity of the mentor mattered in an efficient mentoring relationship. In this sense, this paper, as the product of our mentoring relationship, was planned about 9 months ahead of time before the final step of submitting to the journal.

Third, clear communication was the last component of our mentoring relationship. We avoided making assumptions about our preferences. As Limeri et al. (2019) discussed, clarity in expectations from the mentee can sometimes be an issue in intercultural mentoring (Limeri et al., 2019). Although we had similar challenges, we recognized clear expectations as the key for efficient mentoring (Kilgo et al., 2015) and engaged ourselves in a constant dialogue and quest for possible solutions. When there was vagueness in deciding our tasks, Huseyin created a safe space (Dolan & Johnson, 2009) during meetings and encouraged questions from Isabella. In the later steps of our mentoring, we both asked questions and requested further clarification so that we could overcome any potential challenges about communication. Thus, our way of sharing research and writing tasks was constructionist and relied on verbal communication and mutual agreement.

In summary, our mentoring relationship consisted of some intercultural challenges, which did not become barriers for efficient mentoring. We present our collaboration as an evidence-based practice of mentoring. Hence, we highlight that inquiry and mutual agreement on roles, transparency in a mentoring relationship and clear communication about tasks are crucial components in intercultural mentoring.

## DISCUSSION

This study shows that mentoring is multidimensional and idiosyncratic, which requires special attention for maintaining an efficient intercultural mentor-mentee relationship in undergraduate research. Transparency and clear communication play a pivotal role. To this end, communicating mutual expectations matters in intercultural mentoring. Also, it is important for both mentors and mentees to remember that their roles will be reshaped and negotiated in time as the learning happens. Rather than relying on accumulated experience in a mentoring relationship, both the mentor and mentee need to reflect on their roles and lived experience in order to make possible connections with their learning during and outside the mentoring.

Mentor graduate students need to set their expectations clearly and find the fine line between rigor and emotional support (Shanahan et al., 2015). Also, we suggest that mentors should view their mentees as their colleagues and know them as individuals. Likewise, mentors should be intentional about providing honest feedback, offer personal support, be accessible, and respect the mentee's career aspirations and priorities (Ramirez, 2012).

We suggest that the utmost goal of mentoring support in undergraduate research is to scaffold mentees' learning by aiming for independence in research. Thus, a good mentor should provide opportunities for their mentees to engage in learning in multiple ways, accessing information in their own ways, and expressing themselves in multiple ways (Moreland, 2020). Mentor graduate students should promote agency and autonomy in learning (Kolb & Kolb, 2005) and encourage their mentees to have ownership of their research (Shanahan et al., 2015).

According to a study by Rodríguez Amaya et al. (2018) at a Hispanic-serving institution, most Hispanic students viewed research "only for future scientists". It is important for universities to make mentoring accessible to all undergraduate students and support their research involvement. Mentor graduate students should be sensitive to the needs of their mentees from historically underrepresented and underserved groups (Brown, 2016). Academic institutions must take action to improve inclusion and promote undergraduate mentoring for all faculty (Davis et al., 2020) as well as graduate students.

Faculty might be less engaged in mentoring undergraduate students due to their other priorities (Chamely-Wiik et al., 2020). At R1 institutions, like the setting of the current study, when faculty members are overwhelmed with their research involvements,

graduate students can mentor undergraduate students who are interested in research and graduate studies. Acknowledging the overall benefit of utilizing the resources of graduate students in mentoring, we use caution from recommending that they should be used as “cheap labors” (Reed, 2021). Mentoring should be mutually benefitting—academically, emotionally, and professionally (Gershenfeld, 2014).

Overall, we recommend that mentor graduate students should be provided with well-rounded training to truly support undergraduate student mentees. We caution from prescribing a one-size-fits-all mentoring model. Thus, it is important for mentoring efforts to address the individual needs and consider the cultural factors for the benefit of the mentee. If we want to prepare mentees as tomorrow’s culturally relevant scientists, doctors and educators, it is of utmost importance for mentors to work on their intercultural competence and attend to the personal needs of their mentees.

**Disclosure Statement:**

The authors reported that no potential conflict of interest existed throughout the study.

**Acknowledgements:**

We are grateful to the Center for Undergraduate Research at the University of Florida for making this collaboration possible through the mentor-mentee matching opportunity.

**REFERENCES**

- Bauer, K. W., & Bennett, J. S. (2003). Alumni perceptions used to assess undergraduate research experience. *The Journal of Higher Education*, 74(2), 210–230. <https://doi.org/10.1080/00221546.2003.11777197>
- Brown, C. D. (2016). Ethical Issues When Graduate Students Act as Mentors. *Ethics and Behavior*, 26(8), 688–702. <https://doi.org/10.1080/10508422.2016.1155151>
- Carsrud, A. L. (1984). Graduate student supervision of undergraduate research: Increasing research opportunities. *Teaching of Psychology*, 11(4), 203–205. <https://doi.org/10.1177%2F009862838401100403>
- Chamely-Wiik, D., Cooney, B. T., & DeDonno, M. A. (2020). Who mentors undergraduate student researchers? An analysis of faculty involvement at a four-year university. *Mentoring & Tutoring: Partnership in Learning*, 28(1), 78–97. <https://doi.org/10.1080/13611267.2020.1737784>
- Chan, A. W., Yeh, C. J., & Krumboltz, J. D. (2015). Mentoring ethnic minority counseling and clinical psychology students: A multicultural, ecological, and relational model. *Journal of Counseling Psychology*, 62(4), 592–607. <https://doi.org/10.1037/cou0000079>

- Chang, H., Ngunjiri, F. W., & Hernandez, K.-A. C. (2016). *Collaborative autoethnography*. Routledge. <https://doi.org/10.4324/9781315432137>
- Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). SAGE.
- Council on Undergraduate Research. (2021). Mission and vision. [https://www.cur.org/who/organization/mission\\_and\\_vision/](https://www.cur.org/who/organization/mission_and_vision/)
- Cronan-Hillix, T., Gensheimer, L. K., Cronan-Hillix, W. A., & Davidson, W. S. (1986). Students' views of mentors in psychology graduate training. *Teaching of Psychology*, 13(3), 123–127. [https://doi.org/10.1207/s15328023top1303\\_5](https://doi.org/10.1207/s15328023top1303_5)
- Cruz, J., Goff, M. H., & Marsh, J. P. (2020). Building the mentoring relationship: Humanism and the importance of storytelling between mentor and mentee. *Mentoring & Tutoring: Partnership in Learning*, 28(2), 104–125. <https://doi.org/10.1080/13611267.2020.1749344>
- Davis, S. N., Garner, P. W., Jones, R. M., & Mahatmya, D. (2020). The role of perceived support and local culture in undergraduate research mentoring by underrepresented minority faculty members: Findings from a multi-institutional research collaboration. *Mentoring & Tutoring: Partnership in Learning*, 28(2), 176–188. <https://doi.org/10.1080/13611267.2020.1749347>
- Deardorff, D. K. (2004). *The identification and assessment of intercultural competence as a student outcome of internationalization at institutions of higher education in the United States* (Unpublished doctoral dissertation). North Carolina State University, Raleigh, NC.
- Dolan, E., & Johnson, D. (2009). Toward a holistic view of undergraduate research experiences: An exploratory study of impact on graduate/postdoctoral mentors. *Journal of Science Education and Technology*, 18(6), 487–500. <https://doi.org/10.1007/s10956-009-9165-3>
- Foote, K. E., & Solem, M. N. (2009). Toward better mentoring for early career faculty: Results of a study of US geographers. *International Journal for Academic Development*, 14(1), 47–58. <https://doi.org/10.1080/13601440802659403>
- Gershenfeld, S. (2014). A review of undergraduate mentoring programs. *Review of Educational Research*, 84(3), 365–391. <https://doi.org/10.3102%2F0034654313520512>
- Gibson, S. K. (2005). Whose best interests are served? The distinction between mentoring and support. *Advances in Developing Human Resources*, 7(4), 470–88. <https://doi.org/10.1177%2F1523422305279678>
- Giedt, T., Gokcek, G., & Ghosh, J. (2015). International education in the 21st century: The importance of faculty in developing study abroad research opportunities. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 26(1), 167–186. <https://doi.org/10.36366/frontiers.v26i1.365>
- Given, L. M., & Saumure, K. (2008). Trustworthiness. In L. M. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (Vol. 2, pp. 895–896). SAGE. <https://www.doi.org/10.4135/9781412963909.n470>

- Hackmann D. G., & Malin J. R. (2020). From dyad to network: The evolution of a mentoring relationship. *Mentoring & Tutoring: Partnership in Learning*, 28(4), 498–515. <https://doi.org/10.1080/13611267.2020.1793085>
- Handelsman, M. M., Gottlieb, M. C., & Knapp, S. (2005). Training ethical psychologists: An acculturation model. *Professional Psychology: Research and Practice*, 36(1), 59–65. <https://doi.org/10.1037/0735-7028.36.1.59>
- John, J. & Creighton, J. (2013). ‘In practice it doesn’t always work out like that.’ Undergraduate experiences in a research community of practice. *Journal of Further and Higher Education*, 37(6), 750–768. <https://doi.org/10.1080/0309877X.2012.684037>
- Johnson, W. B. (2016). *On being a mentor: A guide for higher education faculty* (2nd ed.). Routledge. <https://doi.org/10.4324/9781315669120>
- Johnson, W. B., & Huwe, J. M. (2002). Toward a typology of mentorship dysfunction in graduate school. *Psychotherapy: Theory, Research, Practice, Training*, 39(1), 44–55. <https://doi.org/10.1037/0033-3204.39.1.44>
- Kilgo, C. A., Ezell Sheets, J. K., & Pascarella, E. T. (2015). The link between high-impact practices and student learning: Some longitudinal evidence. *Higher Education*, 69(4), 509–525. <https://doi.org/10.1007/s10734-014-9788-z>
- Kinkead, J. (2003). Learning through inquiry: An overview of undergraduate research. *New Directions for Teaching and Learning*, 2003(93), 5–17. <https://doi.org/10.1002/tl.85>
- Kinkead, J. (2011). *Advancing undergraduate research: Marketing, communications, and fundraising*. Council on Undergraduate Research.
- Kinkead, J., & Blockus, L. (2012). *Undergraduate research offices & programs: Models and practices*. Council on Undergraduate Research.
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education*, 4(2), 193–212. <https://doi.org/10.5465/amle.2005.17268566>
- Lamm, A., & Harder, A. (2018). *Using mentoring as a part of professional development* (Report No. AEC 401). Department of Agricultural Education and Communication, UF/IFAS Extension, University of Florida. <https://edis.ifas.ufl.edu/publication/WC082>
- Laursen, S., Seymour, E., & Hunter, A.-B. (2012). Learning, teaching and scholarship: Fundamental tensions of undergraduate research. *Change: The Magazine of Higher Learning*, 44(2), 30–37. <https://doi.org/10.1080/00091383.2012.655217>
- Lenz, A. S. (2014). Mediating effects of relationships with mentors on college adjustment. *Journal of College Counseling*, 17(3), 195–207. <https://doi.org/10.1002/j.2161-1882.2014.00057.x>
- Leslie, K., Lingard, L., & Whyte, S. (2005). Junior faculty experiences with informal mentoring. *Medical Teacher*, 27(8), 693–698. <https://doi.org/10.1080/01421590500271217>
- Limeri, L. B., Asif, M. Z., & Dolan, E. L. (2019). Volunteered or voluntold? The motivations and perceived outcomes of graduate and postdoctoral mentors of



- undergraduate researchers. *CBE—Life Sciences Education*, 18(2). <https://doi.org/10.1187/cbe.18-10-0219>
- Malen, B., & Brown, T. M. (2020). What matters to mentees: Centering their voices. *Mentoring & Tutoring: Partnership in Learning*, 28(4), 480–497. <https://doi.org/10.1080/13611267.2020.1793086>
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE.
- Meyers, S. A. (2012). Creating effective working relationships between faculty and graduate teaching assistants. In W. Buskist & V. A. Benassi (Eds.), *Effective college and university teaching: Strategies and tactics for the new professoriate* (pp. 9–16). SAGE. <http://dx.doi.org/10.4135/9781452244006.n2>
- Moreland, A. (2020). Universal design for learning for mentors. *All About Mentoring*, 2020(54), 82–85.
- Nora, A., & Crisp, G. (2007). Mentoring students: Conceptualizing and validating the multi-dimensions of a support system. *Journal of College Student Retention: Research, Theory & Practice*, 9(3), 337–356. <https://doi.org/10.2190/CS.9.3.e>
- Ramirez, J. J. (2012). The intentional mentor: Effective mentorship of undergraduate science students. *The Journal of Undergraduate Neuroscience Education*, 11(1), A55–A63.
- Reddick, R. J., Griffin, K. A., Cherwitz, R. A., Cérda-Pražák, A. A., & Bunch, N. (2012). What you get when you give: How graduate students benefit from serving as mentors. *Journal of Faculty Development*, 26(1), 37–49.
- Reed, M. (2021, September 16). Thoughts on ‘fixing the humanities Ph.D. job crisis’ (Blogpost). *Inside Higher Ed*. [www.insidehighered.com/blogs/confessions-community-college-dean/thoughts-‘fixing-humanities-phd-job-crisis’](http://www.insidehighered.com/blogs/confessions-community-college-dean/thoughts-‘fixing-humanities-phd-job-crisis’)
- Robnett, R. D., Nelson, P. A., Zurbriggen, E. L., Crosby, F. J., & Chemers, M. M. (2018). Research mentoring and scientist identity: Insights from undergraduates and their mentors. *International Journal of STEM Education*, 5(41). <https://doi.org/10.1186/s40594-018-0139-y>
- Rodríguez Amaya, L., Betancourt, T., Henry Collins, K., Hinojosa, O., Corona, C. (2018). Undergraduate research experiences: mentoring, awareness, and perceptions – a case study at a Hispanic-serving institution. *International Journal of STEM Education*, 5(9). <https://doi.org/10.1186/s40594-018-0105-8>
- Russell, S. H., Hancock, M. P., & McCullough, J. (2007). Benefits of undergraduate research experiences. *Science*, 316(5824), 548–549. <https://doi.org/10.1126/science.1140384>
- Santora, K. A., Mason, E. J., & Sheahan, T. C. (2013). A model for progressive mentoring in science and engineering education and research. *Innovative Higher Education*, 38(5), 427–440. <https://doi.org/10.1007/s10755-013-9255-2>

- Sawatzky, J.-A. V., & Enns, C. L. (2009). A mentoring needs assessment: Validating mentorship in nursing education. *Journal of Professional Nursing*, 25(3), 145–150. <https://doi.org/10.1016/j.profnurs.2009.01.003>
- Seymour, E., Hunter, A.-B., Laursen, S. L., & DeAntoni, T. (2004). Establishing the benefits of research experiences for undergraduates in the sciences: First findings from a three-year study. *Science Education*, 88(4), 493–534. <https://doi.org/10.1002/sc.10131>
- Shanahan, J. O., Ackley-Holbrook, E., Hall, E., Stewart, K., & Walkington, H. (2015). Ten salient practices of undergraduate research mentors: A review of the literature. *Mentoring & Tutoring: Partnership in Learning*, 23(5), 359–376. <https://doi.org/10.1080/13611267.2015.1126162>
- Storrs, D., Putsche, L., & Taylor, A. (2008). Mentoring expectations and realities: An analysis of metaphorical thinking among female undergraduate protégés and their mentors in a university mentoring programme. *Mentoring & Tutoring: Partnership in Learning*, 16(2), 175–188. <https://doi.org/10.1080/13611260801916499>
- Thiry, H., Laursen, S. L., & Hunter, A.-B. (2011). What experiences help students become scientists? A comparative study of research and other sources of personal and professional gains for STEM undergraduates. *The Journal of Higher Education*, 82(4), 357–388. <https://doi.org/10.1080/00221546.2011.11777209>
- UF Center for Undergraduate Research. (n.d.). *About us*. <https://cur.aa.ufl.edu/about-us/>
- Vandermaas-Peeler, M., Miller, P. C., & Peeples, T. (2015). “Mentoring is sharing the excitement of discovery”: Faculty perceptions of undergraduate research mentoring. *Mentoring & Tutoring: Partnership in Learning*, 23(5), 377–393. <https://doi.org/10.1080/13611267.2015.1126163>
- Watson, J. C., Clement, D., Blom, L. C., & Grindley, E. (2009). Mentoring: Processes and perceptions of sport and exercise psychology graduate students. *Journal of Applied Sport Psychology*, 21(2), 231–246. <https://doi.org/10.1080/10413200902777297>
- Webber, K. L., Nelson Laird, T. F., & BrckaLorenz, A. M. (2013). Student and faculty member engagement in undergraduate research. *Research in Higher Education*, 54(2), 227–249. <https://doi.org/10.1007/s11162-012-9280-5>
- Zellers, D. F., Howard, V. M., & Barcic, M. A. (2008). Faculty mentoring programs: Reenvisioning rather than reinventing the wheel. *Review of Educational Research*, 78(3), 552–588. <https://doi.org/10.3102%2F0034654308320966>

**AUTHOR INFORMATION:**

**Isabella M. Kirshteyn** is a third-year undergraduate student majoring in nutritional sciences at the University of Florida. She has a background in researching plant breeding and genomics, as well as investigational gene therapy. She has a strong interest in healthcare, and her future career goals are to further research within the field of medicine. Address: Isabella M. Kirshteyn, University of Florida, Food Science and Human Nutrition Department, 572 Newell Drive, Gainesville, FL 32611, USA.

Email: [ikirshteyn@ufl.edu](mailto:ikirshteyn@ufl.edu)

**Huseyin Uysal** is a visiting assistant professor at the Department of Educational Studies at Knox College. His scholarship is driven by the values of social justice and grounded in understanding power, identity, and inclusivity in linguistically and culturally diverse schools. Some of his research interests include fairness, justice and equity in language testing, social consequences of standardized tests, and language learner identity.

Address: Dr. Huseyin Uysal, Knox College, Department of Educational Studies, 2 East South Street, Galesburg, IL 61401, USA.

Email: [huysal9@gmail.com](mailto:huysal9@gmail.com)