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Demystifying the Hidden Curriculum of Undergraduate Research: Insight from Students-as-partners

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Introduction

Despite best intentions, undergraduate research can be a mystical unicorn for students. In a national survey of recent college graduates, 42.7% had participated in undergraduate research, either as a course-based undergraduate research project or as a mentored experience with a faculty member (Moore, 2024). Historically, other estimates of participation in undergraduate research are lower; for example, only 23% of seniors taking the 2020 National Survey of Student Engagement (NSSE) participated in undergraduate research (NSSE, n.d.). Even when students find their way into undergraduate research, they must navigate a hidden curriculum.

George Koutsouris, Anna Mountford-Zimdars, and Kristi Dingwall (2021) describe hidden curriculums in higher education as “unintended messages, underpinning norms, values and assumptions that are often so unquestioned that they have become invisible” (p. 132). University faculty and staff typically don’t deliberately “hide” these norms, values, and assumptions. As Haeger et al. note, “These norms eventually become so ingrained that the people implementing and perpetuating this status quo may forget that they are even there” (2018, p. 16). But, as we discuss more below, faculty and staff - intentionally or unintentionally - can reinforce power hierarchies and create barriers to access when they don’t make efforts to uncover or translate the hidden curriculum for all students.

In undergraduate research, the hidden curriculum prompts questions like:

- (How) Can I participate in undergraduate research? Do I have to wait for an invitation?
- Who is a PI, and what’s my relationship to them? When can I approach them directly, and when am I expected to work with other members of our research team first?
- Who is a post-doc, and how does their work intersect with the projects I’m assigned?
- What is the IRB, and why do we need IRB approval?
- What do I call the members of my team? If I also work with them in other contexts, should how I address them vary by context?
- Why might undergraduate research be meaningful for my future personal and professional goals?

Students-as-partners offers a framework for collaborating with students to make this hidden curriculum visible and to decode it for future undergraduate researchers. As we describe in more depth below, students-as-partners in teaching and learning in higher education recognizes students' expertise in understanding their learning experiences and centers that expertise in research and practice. The framework pairs well with other mentoring models like co-mentoring of undergraduate research (Ketcham et al., 2018) and constellations of mentors (Thurman & Vandermaas-Peeler, 2023; Vandermaas-Peeler, et al., 2023). It also amplifies many of the salient practices of mentors that support students' development in undergraduate research (Shanahan, et al., 2015). In this article, we share our own reflections on using a students-as-partners framework to navigate the hidden curriculum of undergraduate research and offer strategies we'll continue to apply in our future collaborations.

Literature Review

Components necessary to be successful in higher education but that are not explicitly taught are referred to as hidden curriculum, and some students are able to find these components more easily than others (Margolis, 2001). Hidden curriculum describes information that becomes buried because it is not explicitly taught through formal education. Historically, information embedded in the hidden curriculum is gained through experience (Calarco, 2020). Calarco states, "the hidden curriculum tends to stay hidden, and that hiddenness perpetuates inequalities in academia as a whole" (2020, p. 2). Orón Semper and Blasco (2018) argue that the elements of hidden curriculum become revealed when teachers focus not only on the *doing* of learning but also the *being* of learning. They emphasize that the teacher- student relationship is an integral component to the learning process and the overall success of the student.

In his early writing about the hidden curriculum, Philip Jackson (1970) noted that hidden but pervasive values, assumptions, and practices can even be at odds with official, published policies. Ulriksen (2009) argues that hidden curriculums also give insight into a campus's "implied student," the learners who can act successfully within the hidden curriculum's norms without additional support. As a result, hidden curriculum has equity implications related to gender (Warren, et al., 2019), first-generation (Chatelain, 2018), neurodivergent (Byrne, 2019), and racial or ethnic identities (Webb, et al., 2022), among others.

Given these implications, Haeger et al. (2018) explored how two activities embedded in UR programs might make the hidden curriculum more visible. They facilitated and assessed two interventions: a panel discussion of mentors answering questions about research activities in their disciplines and a facilitated activity that introduced students to systems and processes within the academic landscape. Both activities helped students learn more about academic research, but the researchers noted that discrete, one-hour interventions are not sufficient "to thoroughly illuminate the hidden curriculum" (Haeger et al., 2018, p. 21).

While not developed specifically to confront the hidden curriculum, students-as-partners frameworks offer an additional strategy for demystifying unstated norms, values, and practices over time. Students-as-partners in teaching and learning in higher education – often called simply students-as-partners, student-staff partnership, or student-faculty partnership – prioritizes collaborations with students to examine and improve learning contexts. Students-as-partners initiatives can include co-designing assignments or courses, exploring student experiences in in-progress courses, and researching teaching and learning, among other possibilities. These initiatives lead with the assumption that students are experts in their learning experiences and well-positioned to share insights that could transform teaching and learning contexts.

Regardless of the goal, students-as-partners projects embody specific principles or values to facilitate partners dismantling many of the traditional hierarchies in student-faculty relationships in higher education. Cook-Sather, Bovill, and Felten (2014) identified three guiding principles for students-as-partners work: respect, reciprocity, and responsibility. Writing at the same time, Healey, Flint, and Harrington (2014) offered a model with eight values: authenticity, challenge, community, empowerment, inclusivity, reciprocity, responsibility, and trust. Across these models - and more recent scholarship (e.g., Cook-Sather, Bahti, & Ntem, 2019; Mercer-Mapstone & Abbot, 2020) - students-as-partners frameworks assume that both students and faculty need to learn strategies to partner effectively and genuinely with each other and that those strategies may vary from partnership to partnership.

Our Positionality

In 2021, the Center for Engaged Learning (CEL) added a students-as-partners layer to our international, multi-institutional, and multi-disciplinary research seminars. The Center facilitates three-year, collaborative scholarship of teaching and learning (SoTL) inquiries about focused engaged learning topics. For example, the 2021-2023 research seminar focused on (Re)Examining Conditions for Meaningful Learning, with participant teams examining four of the key practices for fostering engaged learning (Moore, 2023): connections to broader contexts, feedback, reflection, and relationships. Jessie Moore leads planning, implementation, and assessment of the research seminars, and she wanted to center student perspectives in this multi-institutional inquiry.

CEL Student Scholars co-lead the research seminars with two to four faculty/staff for the duration of the seminar, creating opportunities for co-mentoring (Ketcham et al., 2018) and for extending students' mentoring constellations (Peeples, Vandermaas-Peeler, & Moore, 2024). Through the CEL Student Scholars program, students participate in all planning meetings with their co-leaders, co-host check-ins with research seminar participants, and co-author presentations and publications. In addition to this focused time co-leading their specific research seminar, they meet frequently with other CEL Student Scholars and Jessie to reflect on their partnership experiences, read relevant scholarship, and share strategies for strengthening collaborations.

Sophie was part of the inaugural cohort of CEL Student Scholars. She majored in Psychology, had minors in Education, and had goals of conducting an independent research project that pertained to her discipline specific interests, early-childhood education. However, assuming the role of a Student Scholar gave her a unique opportunity to be involved with a research seminar on a topic adjacent to her primary interests, (Re)Examining Conditions for Meaningful Learning Experiences. Working with peers and faculty on the leadership team created a different environment of mentorship from an independent research project, or research in a lab with one primary investigator. Additionally, Sophie worked alongside seminar participants who brought diverse perspectives from all over the world, a variety of institutions, and disciplines. In these special partnerships, Sophie practiced communication, shared positionality, wrote blog posts, and presented at conferences. Learning opportunities such as co-writing and presenting successfully contributed to positive relationships that had deep foundations in reflective practices, transparency, and compassion. Upon graduating from Elon University in 2024, Sophie is still reflecting on successful faculty-student partnerships in her research experiences during undergrad. The support Sophie got was essential to her success in undergrad and her pursuit of post-graduate opportunities. Uplifting students' voices through advocating for healthy partnerships has become a mission adjacent to Sophie's discipline-specific career goals.

Because we wanted to represent additional student voices in this piece, we invited other CEL Student Scholars to share their reflections on their experiences with the hidden curriculum of

undergraduate research. These additional student partners - and now co-authors - also have had an opportunity to review a draft of the manuscript and offer feedback.

Hidden Curriculum

Our partnerships in support of the Center's research seminars have both called our attention to elements of hidden curriculum in undergraduate research and offered strategies for navigating these unknowns. Moreover, recurring meetings among CEL Student Scholars and Jessie gave us opportunities to "name" the hidden and make it known for future generations of CEL Student Scholars. In the following sections, we identify elements of the hidden curriculum we've navigated and offer strategies for making these elements explicit in other undergraduate research partnerships.

Confronting Imposter Syndrome

Imposter syndrome is defined by the National Institute of Health as "a behavioral health phenomenon described as self-doubt of intellect, skills, or accomplishments among high-achieving individuals" (Huecker et al., 2024). However, other populations vulnerable to experiencing self-doubt are women, first-generation students, and racial, ethnic, and religious minorities (Chrousos & Mentis, 2020; Holden et al., 2024). While first-generation and continuing-generation students are found to experience similar levels of imposter syndrome, imposter syndrome for first-generation students is more strongly correlated with stress than for continuing-generation students (Holden et al., 2024). How can imposter syndrome be mitigated for students, considering the broad range of student identities that are impacted? As discussed on the *Within & Between* podcast, imposter syndrome becomes easier to tackle when it is named (Logan & Hart, 2020). However, when you are unfamiliar with imposter syndrome in the first place, a big barrier stands in the way of building confidence. Annelise, a 2022-2025 CEL Student Scholar, shared her experience with imposter syndrome:

During my time as a Center for Engaged Learning Student Scholar, I was exposed to a variety of different experiences that I had never participated in, the biggest one being collaborating with staff and faculty members as a student. Going into this experience, I was very concerned about my ability to keep up with everyone and contribute meaningful information to the conversations we were having. I experienced a lot of self-doubt at the beginning, as I was questioning my competence as a member of a leadership team. I felt as though I was supposed to know exactly what I was doing right off the bat, and that was a very overwhelming feeling. Through the incredible leadership I had, and important conversations I had with my collaborators, I was able to feel more comfortable in my space and with my thoughts. I worked to reframe my thinking about my role and began to think more positively about the progress I was making. I was also intentional about acknowledging my feelings, which absolutely helped, and allowed me to open up more.

When carrying out research with student partners, is it enough to merely stress the importance of student input and contributions? Simply put, no. Components of identity such as age/generation, race, ethnicity, religion, socio-economic status, geographical location, could potentially contribute to communication gaps between students and professors. Students are brand new to navigating the world of higher education, therefore it is integral to center the popular phrase coined by Donald Ronsfeld, "You don't know what you don't know" in all partnership practices. Openly talking about and naming feelings of imposter syndrome with one another.

What happens once the student and professor share a definition of imposter syndrome? Imposter syndrome is a deeply personal experience, one that ebbs and flows, and can be difficult to articulate. A successful display of support from a professor can take many forms, all centered around compassion. A students' advisor, mentor, or overseeing faculty member has experienced the same

research process that the student is navigating for the first time, for example, forming a research question, recruiting participants, analyzing results, submitting to a journal, and getting a rejection or acceptance. All of these steps can evoke a range of emotions, as they all have their obstacles and breakthroughs, however, this is not to say that the professor is the “know-all”. In fact, the professor in this relationship may also be experiencing imposter syndrome, whether it be because the student has a research interest that lies a bit out of the professor's wheel house, holds an identity that the professor does not, or is seeking advice on how to combat imposter syndrome and the professor's techniques are not a good fit for the student. Using these hurdles as a way of relating and asking questions helps to build a reciprocated trusting relationship, ultimately leading to a safe space where imposter syndrome can be navigated successfully- at least until the next wave of self-doubt inevitably creeps in. Tiffanie, a 2023-2026 CEL Student Scholar, shares her experience with imposter syndrome as a student partner:

As a student scholar at the Center of Engaged Learning, I have had the unique opportunity to contribute the student perspective on various research topics while working closely with professors and other experienced individuals within the academic world. This role has been both challenging and enlightening, teaching me a great deal about myself and my identity as a student.

One of the most significant challenges I've faced in this role is imposter syndrome. Being a student among professionals who have already earned their degrees and established themselves in their fields can be intimidating. However, my primary responsibility is to provide the student perspective, and in doing so, I often find myself in a leadership position, contributing ideas and insights to individuals who may have more formal qualifications than I do.

Initially, I struggled with feelings of inadequacy, questioning whether I was truly qualified to advise on research when others had years of experience and advanced degrees. However, I came to realize that my role as a student is vital precisely because of my fresh perspective. The academic world thrives on new ideas, and as students, we bring valuable insights that those who have been in the field for longer might overlook.

*Working with various professors and academic professionals, I've learned that breaking down hierarchical barriers is essential to overcoming imposter syndrome. By seeing them not just as accomplished scholars but as people first, I was able to build genuine connections and contribute more confidently. **It's about recognizing that while degrees and titles carry weight, they do not diminish the value of my perspective as a student.***

The support from the program coordinator, Jessie, was also instrumental in this process. Jessie ensured that both the students and the professionals we worked with understood the importance of our role, which helped me feel more confident in my contributions.

Over time, I found that imposter syndrome diminished as I became more comfortable in my role and with the people I was working alongside. This experience has shown me that time, coupled with a willingness to engage openly and authentically with others, is key to overcoming imposter syndrome. By focusing on the human element first and respecting the qualifications second, I was able to navigate the complexities of the academic hierarchy more effectively.

Overall, while imposter syndrome is a common challenge, especially in settings where the academic hierarchy is pronounced, I've learned that it can be managed and even overcome.

By understanding my role, breaking down barriers, and giving myself time to adjust, I've grown more confident in my contributions as a student scholar.

In our CEL Student Scholar program meetings, we've had several open discussions about imposter syndrome. Sophie was among the first to share resources with her peers, and others have shared articles, videos, and podcasts as we continue to learn about imposter syndrome and strategies to work through it.

Developing Community

As the imposter syndrome examples above also demonstrate, developing a community can take time. Given the multiple positionalities we bring to research teams, we need time to navigate relationships within the team. Kira, a 2024-2027 CEL Student Scholar, reflects on this relationship development:

Navigating the expectations of a student scholar took a lot of work. At the weekly student scholar meetings, I learned about my roles and responsibilities as a student scholar and how to navigate several situations. One of the most challenging situations was treating everyone on my research team as a peer and colleague. I work alongside two Elon students and three Elon professors in my CEL research leadership team, one of which was a previous teacher of mine. I had never been told to work alongside a professor in a partnership, and while this was initially uncomfortable, I began to understand why it was so crucial. I also began to feel confident in my abilities and opinions regarding the research topic, and overall, every team member's opinion and thoughts were helpful throughout the summer.

Students-as-partners approaches may help team members navigate relationship development because they emphasize respect and reciprocity, recognizing that all partners bring assets to the collaboration. We begin and end each meeting with two types of check-ins that align our students-as-partners framework with two of the Salient Practices of Undergraduate Research Mentors (Shanahan et al., 2015; Moore et al., 2020). First, we ask how each member is doing, recognizing that we need to balance expectations for rigor with emotional support. Second, we ask if team members have items they want to add to our agenda - or if any new topics have come up during our discussion - so that every member has ownership of our shared work.

Addressing Mentors/Partners

Professors in partnerships with students have a unique position of power in that they have more experience in academia, earning themselves specific titles and responsibilities. Students, on the other hand, are automatically addressed by their first names. While it is up to the professor to decide what they would like to be called, it is a decision that requires thoughtful consideration and an explanation, especially if they require different titles dependent upon the context. Sophie shares this example:

While in undergrad I worked with my research mentor, Dr. Maureen Vandermaas- Peeler, for 3 years. She told me early on that her research students call her 'MVP,' her initials, and I too should call her that. Shortly after getting my degree, I ended up on a panel with MVP, in front of a quite diverse audience of established scholars in the SoTL community. It was in the middle of a sentence, describing my undergraduate research experience, that I realized I did not ask MVP what she prefers to be called in this setting, nor had I paid close attention to the name she used when introducing herself. So, right then and there, I turned to MVP and said, "What would you like me to call you right now?" to which she promptly responded, "MVP is fine, thanks for asking!" After explaining her cute little nickname to the audience, I continued on with my original thought, and that was that.

Asking someone how they prefer to be addressed in an academic setting is similar to asking someone their pronouns. A simple asking of the question and respecting the request is all this interaction requires. It is no big deal; opening the line of communication avoids wrongly assuming and potentially offending someone. Not all interactions are as easily said as done, as names are a very personal topic in which positionality of both the mentor and mentee plays a crucial role. Some professors may prefer to be called by their first name by their research students, and some may prefer being called by their official title. Things like experience, gender identity, racial identity, etc. all impact this choice. Regardless of this decision, it is important that the professor is clear with their research students about why they make this choice. First of all, this conversation can help inform the students' name choice as they progress through their career. Secondly, trust and respect can be built through transparency, avoiding misunderstandings such as, "One of my research mentors wants me to call them by their first name, while another research mentor prefers I use Dr. _____. The latter must not like me."

The positionality of the student is important to consider in this exchange as well. Background and identity play an important role in how students perceive their professors (Swanson et al., 2005). Therefore, being cognizant of the different cultural norms a student brings with them into the classroom is important when discussing expectations. While a professor may be most comfortable having students use their first name, it may be extremely uncomfortable for the student.

In CEL Student Scholars partnerships with faculty, Jessie tries to take the lead on raising the "name conversation" with each new student-faculty leadership team. CEL Student Scholars also tend to talk about naming conventions each year to help new cohorts understand the multiple factors at play and to share strategies for adapting naming practices for different contexts.

Encouraging Questions – and "Translations"

A positive feedback loop, most often discussed in the context of biology, is when effects of a reaction accelerate that reaction. For example, the increase of Earth's temperature, which has been fluctuating for over 2 million years, is explained by a positive feedback loop featured in figure 1 (*Isn't Climate Change a Natural Process?*; n.d.; *Comparing the Advantages of Positive & Negative Feedback Mechanisms Practice* | *Biology Practice Problems*, n.d.).

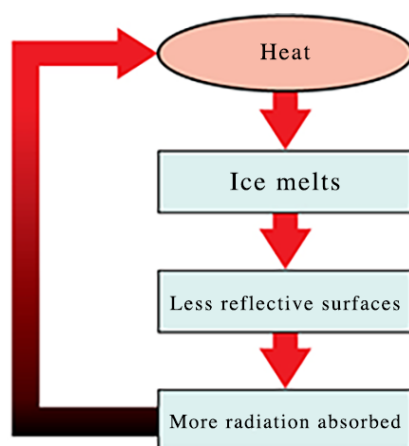


Figure 1. *Positive Feedback Loop: Isn't Climate Change a Natural Process?*

A relationship-based example of a positive feedback loop is being in a new situation and breaking the ice by asking a question. For instance, someone attends a clinic, “Learning the basic principles of Pickleball.” The beginner does not know who they are in company with, other beginners, novices, or experts. The instructor keeps referencing the kitchen. Meanwhile, the beginner is thinking “Why on earth would we be talking about a kitchen? I thought I was at a Pickleball clinic! Well, I guess I must not know something that everyone else knows, because everyone is smiling and nodding their heads. And, that is exactly what I will do until I can google ‘pickleball kitchen’ when I get home.” Ultimately, the beginner finds photos like the one featured in figure 2 and becomes even more confused than before.



Figure 2. Sample Search Result for “Pickleball Kitchen.”

This is exactly what it can feel like when students are navigating the unknown territories of research (and higher education as a whole, however, research is the focus of this paper). When students are entering a new research partnership, it can feel extremely intimidating to speak up about the things they do not know, out of fear that they should already have this information and they will look silly.

With this in mind, the research advisor or mentor should be doing two things. First, assume nothing. Any acronyms, such as IRB, names of journals, or other terms relevant to the field, should be defined. It may be argued that the faculty member does not want to condescend or offend the student by starting from ground zero so to speak; however, it is more harmful to the students’ success and the partnership if they are lost from day one. Second, model asking questions and not being an expert. There will be things that the student knows more about, for instance, social media platforms, the sport they played growing up, etc. Taking an interest and asking questions helps to create an environment of vulnerability, the first step necessary in asking for help.

As Sophie shares, even established partnerships can encounter challenges with academic jargon:

I sat confused, sitting around a table in a meeting with other Student Scholars and faculty from the leadership team on the CEL research seminar. Everyone was throwing around acronyms and by the minute, I was getting more lost than someone in a corn maze. It was my third summer in my position, and I thought I had learned the ropes. I was even mentoring the new cohorts of Student Scholars. However, I was now battling new waves of imposter syndrome and questions like, “How could you not know this? Everyone else does” circulated in my head like a tornado. Eventually, I asked what the acronym was, and my faculty partners not only explained, but apologized for not clarifying earlier. Relief cooled my body as I realized it was a mistake and I, in fact, was not stupid, despite my imposter syndrome's best effort in trying to make me feel like I was.

Not all students will have the experience, familiarity, or comfort in asking for clarification about a term. It is important that mentors are encouraging questions and that it is not the student's fault for not being aware of all of the acronyms used in academia, and let's admit, there are quite a lot of them. It is also important to acknowledge that there are discipline and institution specific acronyms, making it even more difficult to keep all of them straight. Unlike a journal article where you can introduce a term once and then use the shortened version, students may need a bit more repetition.

Because Jessie works with all the CEL Student Scholar cohorts, she tries to keep track of terms and concepts that are second-nature for faculty researchers but that might be new for student partners. She attempts to offer "translations" at strategic times or to encourage returning CEL Student Scholars to offer their explanation of the term. But like any faculty partner, she's not perfect and sometimes forgets to avoid or translate the jargon. In those instances, we've found it helpful to pause, acknowledge that we don't expect everyone to be familiar with the term, and to double-check that we haven't zipped past other terms that need to be explained.

Developing Reading and Writing Strategies

Reading research is often a brand new experience for college students. While some may have a preview of reading research articles in high school, it is important to be clear about expectations in a new environment. In her book, *A Field Guide to Grad School: Uncovering the Hidden Curriculum*, Calarco shares her experience with spending over twice as much time reading as her peers (2020). This phenomenon—reading research articles like novels—is not uncommon, especially for students new to this practice. Additionally, feeling overwhelmed with information and terminology can make finding the main points feel like a blur of confusion. There are three potential paths when approaching a new research article. Reading every word with careful attention, skimming for the main takeaways, and ditching it altogether. Helping students to decipher which path to take can make or break their success with literature consumption.

CEL Student Scholars, like other undergraduate researchers, also encounter new writing tasks. In our partnership, all students contribute posts to the Center's blog, and they also contribute to annotated bibliographies, white papers, presentations, and articles or chapters. Recently, a CEL Student Scholar sought one-to-one feedback from Jessie on an annotation, prompting Jessie to add a discussion about this type of writing to the team's next meeting. If one student has a question about a writing task, other team members might, as well, and in this particular instance, the student's question gave faculty partners an opening to ask questions, too.

Exploring Outcomes

Undergraduate research experiences can help students develop skills and strategies for a variety of future personal and professional goals. Student-faculty partnerships may be formed with a specific goal, such as working on a research project together; however, this does not mean that there cannot be other beneficial mentored opportunities within the relationship. Talking about next steps after graduation is a great example. This is not a topic that is explicitly talked about in courses and the responsibility of initiating this conversation is often transferred to the student. Meanwhile, over 50% of undergraduate students are 1st generation students, meaning their parents did not receive a degree from a 4-year college (Hamilton, 2023). Therefore, releasing control of conversation regarding post-graduate opportunities may not be the most efficient avenue for helping students explore their options for after graduation. There are many paths for students to take, many of which require forethought due to prerequisites such as courses, work integrated learning, and research experiences that may be required to prepare students to become competitive applicants. Considering that post-graduate degrees are not always made to be explicit options to students, faculty mentors become wealths of resources to students. Sophie shares details about the impact

that faculty partners had on her personal and professional development as it pertains to pursuing post-graduate options.

*When I entered college, I chose psychology as my major simply because I enjoyed taking AP Psychology in High School. During my first semester I was not thinking about career goals, rather I was trying to stay afloat while juggling classes, living in a new space, and making new friends. My advisor asked me in one of our first meetings why I chose psychology and what I wished to accomplish with my degree. This was the first time I had given real thought to my goals. After a series of conversations, I was equipped with tools to **continue to ask questions** to other mentors in my mentor constellation (Thurman & Vandermaas-Peeler, 2023). Not only did this strengthen my relationships with mentors, but I was able to receive a multitude of perspectives, ultimately guiding me to a decision of applying to Ph.D. programs upon graduation. At this point relationships with my mentors deepened as they guided me toward experiences that would prepare me for graduate school and help me to become a competitive applicant. Additionally, they provided insight on helpful resources for the application process, such as GRE preparation materials, writing workshops, and resume/CV assistance. My mentors played an integral role in where I am now. Their guidance through conversations about post-grad, relevant experiences, and resources made me feel as though I was making the most informed decision about what path was going to be the best fit for supporting my passions and future career.*

Professors are always carrying around a wealth of knowledge built from years of experience. Utilizing this knowledge by offering options, ideas, suggestions can be pivotal to a student's experience and career trajectory. How do you know if you want to be a hippotherapist—a clinician who facilitates therapy treatments through utilization of a horse—if you have never heard of it? How do you know what graduate school options might support your goals if you're a first-generation student and haven't interacted with many people in your target field?

Azul, a 2023-2026 CEL Student Scholar, shares a time when her faculty partnership served her in deciding what next steps she wanted to take post-graduation:

I am currently conducting undergraduate research with my research mentor, Dr. Crowley. It was a specific moment when I asked Dr. Crowley about their experience/ advice regarding grad school. They in return answered my questions and asked if I was interested in pursuing grad school in linguistics. To which I responded yes. They then informed me about the multiple connections they had with other linguists, specifically in the area that I wanted to continue pursuing. They had mentioned a couple of great programs I was potentially interested in. After having this conversation, I've seen Dr. Crowley advocate and help me as I prepare to start both looking and applying to grad school. It was at this moment that I realized the opportunities that had opened up and my ability to use my mentor as a resource was crucial. If it weren't for this conversation I would have had difficulty maneuvering the application process for grad school.

Supporting students' professional development is another salient practice of mentored undergraduate research (Shanahan et al., 2015), but students-as-partners frameworks amplify this practice. Respecting the expertise each member brings to the partnership and empowering members to contribute actively to shared projects and to pursue professional development helps all involved learn more about the strengths individuals bring, the goals they have, and the ways the partnership activities can help each member work towards their goals.

Overarching Key Takeaways/Conclusion

Students-as-partners frameworks in undergraduate research experiences can be potentially magical. The student can deepen their knowledge through hands-on learning, the research objectives can progress, and the faculty can broaden their understanding with the contribution of new perspectives from the student. However, when topics within the hidden curriculum, such as imposter syndrome, addressing mentors/partners, asking questions, developing reading and writing strategies, and exploring outcomes, get lost in translation, the potential magic of the partnership begins to dwindle.

When navigating student partnerships within research seminars for the first time, Jessie was unable to unhide every hidden piece of curriculum; this would be an impossible task. However, keeping track of the obstacles that students encountered along the way has made for a smoother transition with each new cohort. Tracking what's hidden in our research experiences also helps Jessie - and returning student partners - assess the timeliness of introducing the previously hidden. Preparing students with information, such as explaining what imposter syndrome is, regardless if it may be premature, equips them for when the time eventually comes where the information becomes useful.

This preparation also establishes an open line of communication. In effective student partnerships, roads of communication go both ways and things can be unknown for both the student and faculty member. However, truly listening requires faculty partners to trust students and recognize and value their expertise. When trust and reciprocity are established within a partnership, constructive feedback can be exchanged. Both parties can express their needs and expectations.

Students' feedback in partnerships ultimately cycles back to helping unhide curriculum for future student partners. Valuing student partners is not a one-time thing, rather an ongoing practice that benefits their overall success throughout research, higher education, and beyond.

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