PURM
Perspectives on Undergraduate Research & Mentoring

A Portrait of English Department Undergraduate Research Mentors Through Faculty Reflection and Student Input

Joyce Kinkead, Ph.D., Utah State University (joyce.kinkead@usu.edu)
Taylor Franson, Utah State University
Zackary Gregory, Utah State University
Lauren McKinnon, Utah State University
Emily Powell, Utah State University
Kylie Smith, Utah State University
R. Elle Smith, Utah State University
Taylor Wyatt, Utah State University

Introduction

Undergraduate research in the United States has been a fairly long-standing practice according to Kinkead (2013), who traced the rise of this form of authentic inquiry from German institutions of the 19th century. Undergraduate research as a national initiative took off organizationally with the formation of the Council on Undergraduate Research (CUR) in 1978 by a group of chemists, followed by the first National Conference on Undergraduate Research (NCUR) in 1987. CUR and NCUR joined forces in 2005, resulting in one overarching organization that provides faculty development as well as opportunities to showcase student research. Since then, the practice of undergraduate research, which notably started in laboratories and field sites in STEM areas, has extended to the arts and humanities. Although fairly late, a Division of Arts and Humanities was added to the governance structure of CUR in 2008.

This article focuses on mentoring practices by English Department faculty members, an under-studied group. It paints a portrait of their practices through interviews with three professors about their roles as mentors and a survey with undergraduate researchers.

Review of Literature

CUR defines undergraduate research as "a mentored investigation or creative inquiry conducted by undergraduates that seeks to make a scholarly or artistic contribution to knowledge" (2021). Numerous scholarly articles, books, blogs, and white papers have addressed the concept of effective mentorship. In a comprehensive review of the literature, Shanahan et al. (2015) identified Ten Salient Practices:

1. Do strategic pre-planning in order to be ready to respond to students' varying needs and abilities throughout the research process.
2. Set clear and well-scaffolded expectations for undergraduate researchers.
3. Teach the technical skills, methods, and techniques of conducting research in the discipline.
4. Balance rigorous expectations with emotional support and appropriate personal interest in students.

5. Build community among groups of undergraduate researchers and mentors, including graduate students, postdoctoral fellows, and any other members of the research team.
6. Dedicate time as well to one-on-one, hands-on mentoring.
7. Increase student ownership of the research over time.
8. Support students' professional development through networking and explaining norms of the discipline.
9. Create intentional, laddered opportunities for peers and "near peers" to learn mentoring skills and to bring larger numbers of undergraduates into scholarly opportunities.
10. Encourage students to share their findings and provide guidance on how to do so effectively in oral and poster presentations and in writing.

Truly, this is a valuable contribution to the work on undergraduate research and mentors. The comprehensive review undertaken by Shanahan et al. (2015) includes more than 100 citations, most from STEM areas. We found only a handful of the many resources cited from the humanities or the arts, but this important work is having an impact in these areas. As a matter of fact, in Perspectives on Undergraduate Research and Mentoring (PURM) 2019 special issue on Mentoring Undergraduate Creative Scholarship, Shawyer et al. (2019) apply the Salient Practices Framework in three case studies of mentoring in theatre and dance. To situate the current study within the scholarly literature, we looked at mentoring in both STEM and non-STEM areas. A sample of those sources follow.

Mentoring in STEM

The aptly named "Mentoring Manual" from Institute for Broadening Participation (2012) is an introductory guide to mentorship. This manual is a living document, and readers can submit feedback and responses, which the authors use to revise the manual. A similar guide is *Entering Mentoring: A Seminar to Train a New Generation of Scientists* (Handelsman, et al., 2005). In Chapter 1, the manual establishes a rationale by stressing the lack of scientists who are also taught to be effective teachers. The manual expresses the importance of changing the attitude toward teaching in the sciences: "Graduate programs pay little attention to teaching scientists to teach.... We need to adjust our priorities and correct this historic imbalance of learning how to practice science but not how to teach it" (p. 25).

Through a multidisciplinary research seminar held in 2014 on the campus of Elon University, 34 scholars focused on mentoring relationships in undergraduate research (UR). The cross-disciplinary and cross-institutional research supported previous scholarly work addressing student benefits of participating in UR. Vandermaas-Peeler et al. (2018) compiled much of the research collected from the seminar in *Excellence in Mentoring Undergraduate Research*, acknowledging the paucity of research conducted on the "process related to mentoring UR within faculty and institutional contexts" (p. 10). Along with looking at effective mentoring techniques for educators, this group describes current tensions and challenges that hold back universities and educators from engaging students and faculty in UR. According to Vandermaas-Peeler et al. (2018), these challenges can fit under one of three categories: student issues, faculty concerns, and institutional commitment (p. 3).

Mentoring in Humanities

Several works have identified mentoring challenges and opportunities in the humanities. *Creative Inquiry in the Arts and Humanities: Models of Undergraduate Research* (Klos et al, 2011) provides an overview for how to design undergraduate research projects in the humanities as well as a guidance on how to mentor undergraduate researchers. The fourth chapter, "De-centered Discovery: Advancing an Undergraduate Research Culture Within the English Major," highlights the importance of de-centered education: "De-centering has encouraged our students to understand their work as having significance beyond that of simple academic exercises" (Johnson et al., p. 33). For instance, a capstone project allows the relationship between the researcher and mentor to evolve over time.

Eventually, the student is not working toward a grade from a mentor but seeking "practical advice about professional expectations" (Johnson et al., p. 41).

Yet another volume, *How to Get Started in Arts and Humanities Research with Undergraduates*, edited by Crawford et al. (2014), offers start-to-finish advice. In Chapter Eleven, Fitzgerald discusses research opportunities available for students in the field of writing studies, mentor-student relationships, and how to best select methodologies for research. Fitzgerald believes writing studies "offers a unique confluence of writing both as a skill being developed and as disciplinary content being studied that can present students with authentic research opportunities" (p. 96). Fitzgerald describes possible topics within writing studies, including her personal experience mentoring an undergraduate student who researched feedback given by writing center tutors. This example demonstrates how undergraduate mentorship provides students with research opportunities they may not otherwise be aware of, knowledge of conferences where students can present their research, and mentor recommendations for publishing avenues. Fitzgerald envisions a collaborative relationship in which mentors can ask students' academic advice on their own research and writing.

In a more narrowly-focused volume, *Reading, Writing and Research: Undergraduate Students as Scholars in Literary Studies*, Behling et al. (2009) consider issues in this field—namely the reliance on sole author publication—and how those issues impact undergraduate student access to research opportunities. The final section, "Focus on Faculty Members Engaged in Undergraduate Research," calls to the "essential features" needed in literature studies scholarship, that is, the significance of mentors as well as time and space for students to work with scholars. We take note at this point that *English Studies* contains several subfields: literature, writing (sometimes termed composition and rhetoric), technical or professional writing, creative writing, folklore, linguistics, and English education.

In *Undergraduate Research in English Studies*, Grobman and Kinkead (2010) devote a section to contributions about mentoring. Collaborators Elder (student) and Trapp (faculty) share their story in "Mentor as Method," centering on how the relationship is key to success. Eventually, they came to see each other as friends—not hierarchical at all--and suggest an almost spiritual aspect to the collaboration. Henningsen (student) and Whitt (faculty) write about how they compiled an anthology of short stories. To begin, Whitt posed some questions, such as what part of the research might an undergraduate take in which they could be successful and contribute? Whitt felt she served as a role model and carefully articulated the process and expectations. She also became an advocate, writing letters of recommendation for Henningsen. In Chapter Three, Greer focuses on mentoring nontraditional students. The volume also explores various models of UR: students conducting independent research projects with the guidance of a faculty mentor, students serving as research assistants on faculty projects, and students conducting research as part of course-based undergraduate research experience (CURE). They also note that mentoring "carries with it significant ethical implications" (p. xvii), including what credit the student will receive in any dissemination. Most relevant to this research project are the "Lessons Learned" as delineated by Cooper-Rompato and Funda in a chapter on "Undergraduate Research Fellows." From the faculty perspective, they learned the following:

1. Make sure the student takes an active role and is a decision-maker.
2. How can the faculty mentor contribute to the student's overall education?
3. Be aware of ethical considerations of student-centered research projects.
4. Be reflective and ask students to be reflective, too.
5. Be watchful for transitions as the student researcher evolves and develops.
6. Be clued into interrelated possibilities.
7. Know that there are rewards for mentorship in tenure, promotion, and awards.

Mentoring is innately hierarchical, but mentors often work toward more shared and equitable relationships. Brown, Kausen, and Surani (2020), in writing about mentorship in creative writing, emphasize that authority needs to be "deconstructed" for truly collaborative mentoring: "elitism [is] the limitation of mentoring since mentors can only work with the few and not the many." Though she acknowledges that one-on-one interactions are part of what makes mentoring such an enriching experience, Brown also suggests that schools and universities should be mindful about which students are selected for mentorship. Brown reminds readers that minority students are often excluded from mentorship opportunities and suggests that, to the extent possible, mentors should work to develop a relationship prior to the undertaking of creative work or research projects to prevent bias. Brown also discusses her decisions to share her own work with her mentees to create a collaborative relationship.

Moore et al. (2021) zero in on mentoring in writing studies[1] in *The Naylor Report* (DelliCarpini, Fishman, & Greer, 2020). They begin by noting Kuh's research that finds UR a high-impact practice (2008) and then state their foundational believe that "*Writing Studies faculty should engage in mutual-mentoring with undergraduate researchers in our writing programs and majors*" (italics original, p. 30). Mutual-mentoring emphasizes collaborative, non-hierarchical relationships. Their four recommendations focus not so much on characteristics or practices of mentors, but on structures for mentoring, including professional development opportunities. In a follow-on reflection on this chapter, Abbott, Bellwoar, and Hall focus more on challenges of mentoring: colleagues undervaluing UR, time commitment, inhibiting research productivity, institutional policies, lack of funding, scaling up UR experiences. They call for "opportunities for faculty to share excellent practice in UR mentorship" (p. 47).

While common themes exist in the scholarly literature on mentoring, overall, the literature on mentoring in the humanities, with special attention to English, emphasizes a goal of collaborative rather than hierarchical relationships, which is not as evident in STEM-related work. Additionally, a laboratory setting encourages a community of researchers of various levels and ranks that is atypical in English Studies.[2]

The Current Study

The research project reported here is a response to the call articulated by Abbott, Bellwoar, and Hall (2021) to share practices in mentoring students. The study was conducted by master's level graduate students enrolled in a seminar focusing on Composition/Writing Studies. Over the course of the 15-week semester, the researchers became certified in human subject research, reviewed pertinent literature, designed the study and received IRB[3] approval, conducted interviews with a representative sample of faculty mentors, created a Qualtrics survey for students with a history of participating in undergraduate research, prepared a report, and disseminated at our campus research symposium. The results were shared with the department's leadership team as part of an assessment of the undergraduate research in the unit as well as an effort to share best practices.

Although some of the researchers themselves had participated in undergraduate research events while pursuing a baccalaureate, they were not fully aware of the larger picture of undergraduate

[1] Two terms used in English departments need some clarification: composition studies and writing studies. Broadly speaking, *composition studies* refers to general education writing courses while *writing studies* is more aligned with degrees (e.g., certificates, majors) in writing.

[2] While not impossible to establish a research team in an English department, it occurs fairly rarely. Some subfields—such as technical communication—may lend themselves more readily to this approach. The same may be true of digital humanities projects. To muddy the waters further, English is considered a humanities field, but some subfields may cut across the arts (e.g., creative writing) or social sciences (English education, writing studies).

[3] IRB Protocol 12579, Utah State University

research until this seminar. Those who had been mentored by a faculty member in the past brought that knowledge with them to this project. They also became aware of composition/writing studies as a "field" within English Studies and how undergraduate research might be enacted in this subject.

The motivation for the study arose, in part, from this particular department being a contributor to a vibrant institutional culture of undergraduate research, recognized by CUR's Award for Undergraduate Research Accomplishments (AURA) in 2020. The department had established its own UR symposium in 2012, and its students have a track record of presenting at campus UR symposium, the annual State Capitol UR venue, the state UR conference, National Conferences on Undergraduate Research (NCUR), and the annual convention of Sigma Tau Delta (English honor society), in addition to a robust catalog of student-authored or co-authored faculty-student publications. Given this context, our research question asks *what are the practices of effective mentors within the department*? Knowing these characteristics could help the department move to the next level in establishing an even broader culture of undergraduate research, particularly important for entry-level faculty members.

Methods

Our goal was to create a portrait of the effective English faculty mentor. To collect information on practices in undergraduate research mentorship in a department of English, we involved two sets of participants: faculty members and student researchers. To qualify as participants for the former, faculty members must have been recognized with the Outstanding Undergraduate Research Mentor Award, a competition initiated by the institution's research office in 2004. Since 2009, ten faculty members in the department have received this award, some of them multiple times. A second criterion was holding the rank of professor, indicating experience. Another selection measure focused on the subfields of the department. The three faculty participants represent literature, writing studies, and English education. We developed a set of interview questions to query these faculty members about their practices as mentors and conducted Zoom-based interviews. The questions sought information about their mentoring experiences, effective practices, challenges, and outcomes. See Appendix for a list of interview questions. Participants signed IRB-approved consent forms. Faculty member #1 was interviewed by all researchers in order to establish protocol norms. For the other two faculty members, a segment of the researchers conducted the interviews. Generally, the interviews took about an hour each. Transcripts from the interviews were coded for themes and highlighted for particular insights during analysis by all researchers on the project. The results demonstrated remarkable convergence among the three informants, which will be detailed in the Results section.

The second group involved the undergraduate researchers themselves. To qualify for this set, students must have participated in student research symposia on campus or beyond, received grants, or co-published with faculty. A list of 50 students was identified using these parameters. While a significant number had graduated, some were still working on their baccalaureate degree. The researchers developed a Qualtrics survey with a letter of information embedded. No identifying information was requested in order to guarantee the students' confidentiality and privacy. Students received an email from the principal investigator (PI) inviting them to complete the survey, which asked about their UR experiences but honed in particularly on their relationship with and effective practices of mentors (See Appendix).

Results

Mentor Interviews

Transcripts from each of the three interviews were analyzed for themes and patterns. All three interviewees provided consistent answers in several areas. When asked about their motivation for being involved in undergraduate research, faculty emphasized the importance of student growth and

learning. This was more important than any professional or academic rewards or accolades that they might receive as faculty members. In particular, they cited an increase in confidence as an essential outcome of an undergraduate research project that came to a successful conclusion. As one faculty member put it, "I move from authority to audience" as students gain more experience and expertise in the subject.

These are impressive results given that the mentors also identified several challenges. They found that students did not necessarily believe in themselves as researchers at the beginning of their projects. They noted that students sometimes struggle to envision, much less enter, a broader community of research or scholarship. They may have put published scholars/researchers on such a high pedestal that they cannot imagine that they have anything to add to the scholarly knowledge base. They sometimes believe that they cannot think of a question or thesis that is original or of consequence. Thus, *consequence* becomes an important term as a take-away. Students need to feel that they are contributing to research and scholarship of the field. One mentor pointed out that each researcher's lived experience can be insightful and almost always an undergraduate researcher's work ultimately ends with something original. In short, mentors cited the need for confidence-building among the student researchers.

How do these mentors achieve successful results? First, they set high expectations, but they also recognize the need to be flexible. Setting clear expectations and deadlines is "hugely important," according to one mentor. One advised, "Get out a calendar, determine steps to be completed, working backward from a final date." This may be a to-do list or a calendar. Keeping on top of that timeline is also crucial. Regular check-ins between mentor and student, either in the classroom or through regularly scheduled meetings, help. The mentors noted that sometimes the process can go awry when the student doesn't meet deadlines, and then there is a danger of the student feeling badly and becoming uncommunicative, making the situation even worse. Re-grouping is one tactic to salvage a condition like this. It is the rare case of a failure, though. One interviewee noted that increasingly, effective "project management" is being integrated as part of the research project assessment.

Each step of the process is crucial to success. Throughout, the faculty mentors noted that modeling, particularly during the start of the project, sets up skills for students to understand which sources—especially texts for the literature faculty—are most useful. Reliability and credibility of materials are important to the final product. One faculty member called it a soup-to-nuts approach in which the entire research process is demonstrated and enacted. Rehearsals for public dissemination give students practice but also confidence. Public presentations may address only a portion of the final research report, and whittling the amount of material is skill building in itself. In general, dissemination begins with the campus UR symposium, but the venues may vary. One of the mentors requires students to develop not just the report but also a research poster, in addition to a lightning talk in order to understand the conventions of each format. As this mentor put it, "The iterative nature of developing these products from the research can inform one another and help the researcher re-see the evidence." The other two mentors focused on just one presentation type, but all noted that conversations with student presenters following the symposia often included a comment such as "I wish I had done a poster rather than the oral presentation," or the reverse. Being in the midst of diverse posters and presentations impressed the students with the variety of ways to describe their research. The campus symposium may be a first step to other venues at the state or national level or even a publication.

The projects described by these three mentors varied: curricular, extracurricular, or even community-based public humanities. Having a public presentation of the project itself is the icing on the cake, so to speak, the opportunity to celebrate and revel in the work. Budwig et al. (2021) have discussed the

power of the public presentation, whether in first-year or capstone experiences. These can be particularly helpful in literature-based projects, which, on the surface, may seem to be more difficult to generate original ideas. Dissemination occurs in venues beyond research symposia, some in the community. For instance, examples of public humanities included signage about a local writer located at the writer's childhood home as well as at a state park. Yet another instance of public humanities was a literary-based walking path of a well-known writer, the product being a tourist brochure. These also required collaboration with agencies such as community visitor centers and the National Forest Service. Additional collaborations for public exhibitions have included the campus art museum and the university library.

Overall, the mentors have worked with quite a large number of students, which is helped by curriculum-based projects, termed Course-based Undergraduate Research Experiences (CURE). A typical course in English enrolls 20-30 students. Managing the individual or group projects requires energy, commitment, and precise planning. The reward is watching students at the close of the course present and/or publish.

Absent the laboratory setting, do student researchers in English come to see themselves as part of a research team or a broader, scholarly community? According to the mentors, they certainly develop community within their groups (usually classes). A kind of organic development takes place as they share progress reports on their projects. Peer interaction and suggestions can lead to the researcher modifying a research question. Such "round robin" interchanges build a sense of "we're all in this together." One mentor noted how "Delight and pleasure are inevitable outcomes" of these sharing sessions. In terms of the larger scholarly community, that's a tougher sell. Many of these students come from a research paper tradition in which they are summarizing others' work. In contrast, undergraduate research asks them to be a scholar and to make a contribution to the discipline.

As one mentor noted, public dissemination of humanistic research and scholarly work is important as sometimes this type of inquiry is viewed as inconsequential by the public at large. "These students have something to say and say it with enthusiasm and excitement that they experience when they have come to terms with the topic that contributes to the larger conversations." They are, in essence, ambassadors in delivering the message that the humanities matter.

The relationship factor is important to mentors. As one participant put it, "Once they are my mentee, they are my mentee for life." The other two participants confirmed the long-term relationships with students, continuing to support them through letters of recommendation or even as social media friends. We came away from these interviews with the sense of the connections mentors make with their mentees and their absolute pleasure in their successes. While not every mentor-mentee relationship lasts beyond class or graduation, during the generation of the research, all of these mentors felt like "cheerleaders" encouraging their students to be successful. Moreover, they wanted students to feel the same excitement that they do as researchers.

Regarding the larger departmental culture, these mentors remarked that there has been an emergence of undergraduate research as being more visible, made real by financial support of grants, mutually supportive colleagues and dialogue, as well as published news and stories. The department hosted its own department symposia, spearheaded by two faculty members, until it was decided to participate in the university-sponsored symposia. The semesterly symposia feature a significant number of entries from the English department. All three participants believe that they are doing something of consequence when working with student researchers, but they also expressed concern that undergraduate research could ebb and flow depending on faculty investment. They cited their own status as full rank professors that gave them the freedom to experiment with teaching and learning; they also noted how student researchers enriched their own scholarly

agendas. Being in a supportive environment allowed these faculty members to thrive as mentors and concentrate on the students themselves.

Student Surveys

A Qualtrics survey was sent to 50 participants who met the inclusion criteria of having disseminated research at a public presentation, received an UR grant, or published research. The return rate was 46%, which is highly credible for this type of survey. Only 20% were still working on undergraduate degrees; 60% had completed their B.A./B.S., and 20% were in a master's degree program. The gender identification of participants was consistent with the demographics of the student population of majors in English--77% identify as female with the remainder identifying as male. No one reported as non-binary or opted not to respond.

The questions covered two areas. First, we wanted to know about their UR experiences, and second, we asked about their faculty mentors. In describing their projects and when they conducted research, for 50%, it was the senior year while 24% were active as juniors, 12% as sophomores, and 6% during year one. The latter may come from our Research Fellows cohort, who are immersed in research from the start of their undergraduate career, but we did not ask for that demographic. Increasingly, UR is seen as a high-impact practice that encourages retention, and central UR offices are working to involve students as early as possible. A recommendation later in this report addresses this issue.

Once introduced to research, some students had multiple opportunities to conduct research, not just as a one-time shot. The majority of projects occurred within the context of a class. Forty percent of projects were part of a group class project, while 35% were done individually but also as part of course requirements. We note here that the department's research methods course requires both a whole-class group project as well as individual research projects. As a result, students from this course would identify both UR experiences. Slightly over 22% conducted research independently. These took the form of serving as an undergraduate research assistant for a professor, enrolling in directed study, or conducting research as part of an Honors thesis or contract.

All of the participants disseminated their projects publicly. Results were presented most often at an on-campus venue (60%) but also at state venues (22%), and national conferences (3%). Two respondents had work published in print venues. These findings suggest that on-campus research symposia can be a launching pad for further off-campus UR venues.

After learning about the students' experiences, we were most interested in how they described their mentors who helped them conduct and share research. A multiple-choice question asked students to identify research tasks for which mentors provided help (Figure 1) The process of research received the highest marks, and notably, it is the beginning of the process that ranks highest: forming the research question. It is at this point that students may feel most vulnerable and in need of help. Likewise, the management of the project was extremely important, setting deadlines. They appreciated advice on the research method and feedback on their proposals. Finally, they welcomed advice on dissemination, the medium, and the delivery.

These ranked tasks anticipate the mentor characteristics most valued by student researchers. Participants identified the three most important attributes of their faculty mentors. "Taught me important skills, methods, and techniques of conducting research" and "cared about me" earned the highest rating. Faculty mentor interviews noted that the relationship is all important, clearly a message conveyed to these students. In third place, being held to high standards and deadlines was noted. Planning the research process and understanding ethics were also important. They felt that mentors helped them increase their sense of the research over time. Mentors showed them how to

share the research publicly. Faculty members' ability to provide letters of reference for employment or graduate school or even their own expertise in the subject field were less important. Regarding community, which is listed as one of the salient factors, students didn't see themselves necessarily as entering a community of researchers (Figure 2).

Figure 1. *Ranked Tasks Mentors Helped Students with on Research Projects*

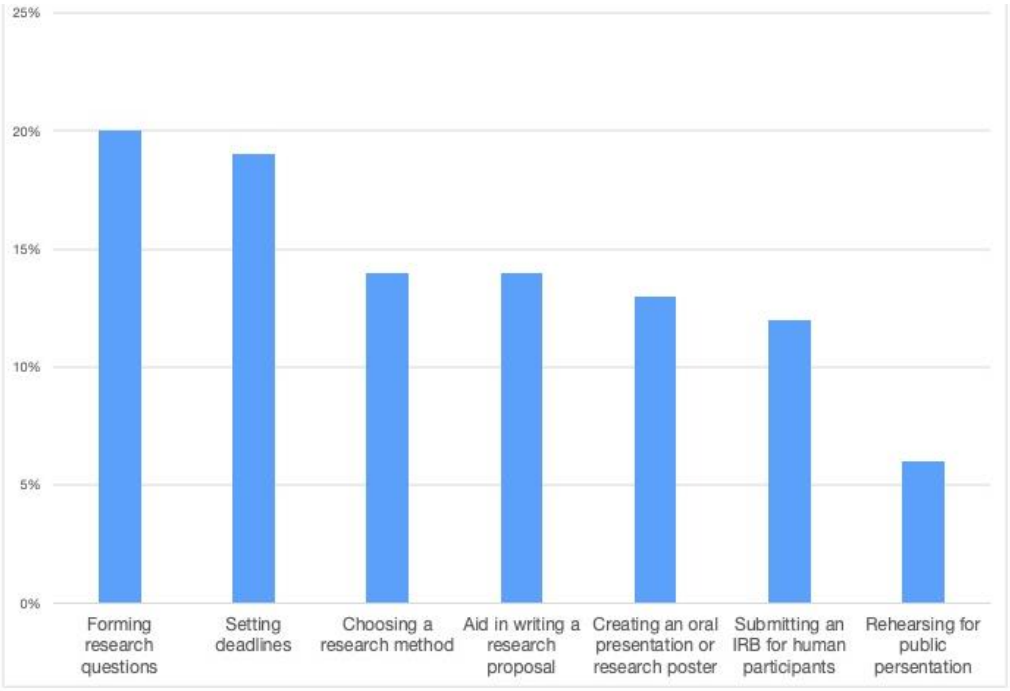
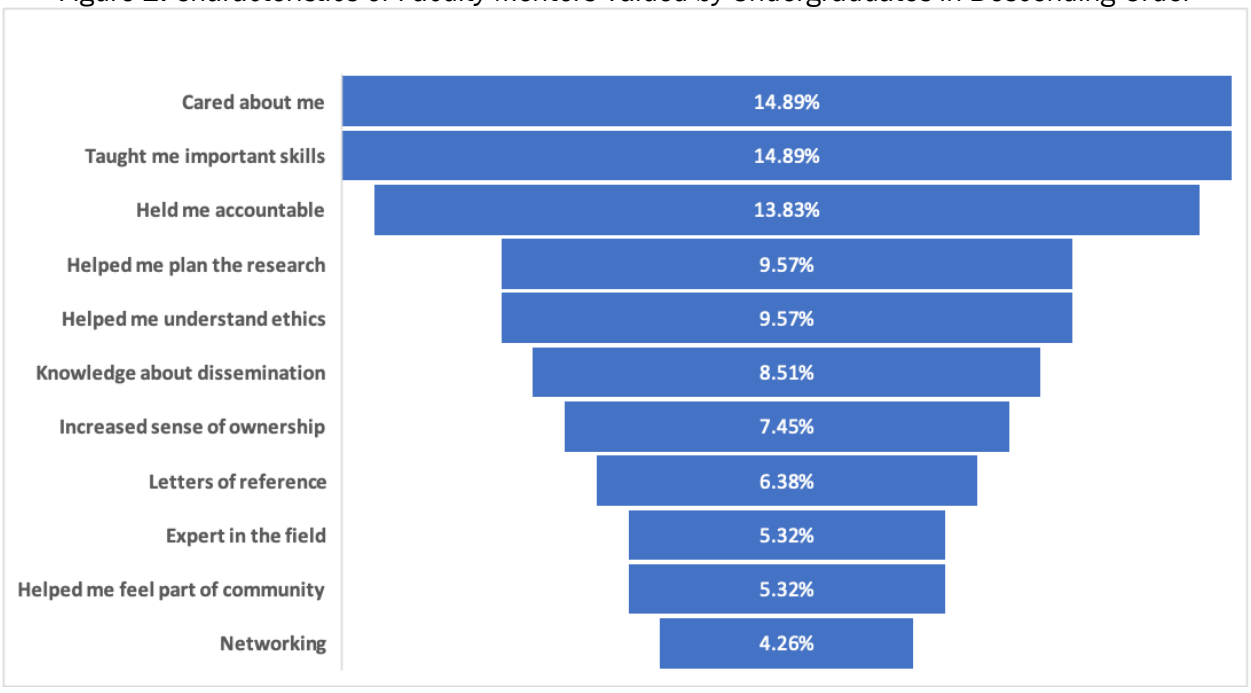


Figure 2. *Characteristics of Faculty Mentors Valued by Undergraduates in Descending Order*



The transformative nature of UR is suggested by the students' appraisal of their mentors' investment in them and their projects. The students were extremely satisfied (86%) and overwhelmingly recommended a research experience to other undergraduates (95%). They felt that the mentor helped them be prepared for success in their academic field or career. As researchers, we were curious if same gender mentors might be more appreciated. As a result, one survey question asked about that demographic. However, the mentor's gender didn't seem that important with 75% noting "it doesn't matter" while the others felt that the same gender would be useful.

In addition to the quantitative data from the surveys, students had the opportunity to provide comments, which many of them did. We did a thematic analysis of these comments, which focused primarily on their own professional and personal growth. They particularly highlighted skills they gained from being a researcher. They got to explore a topic in depth, and they appreciated autonomy in selecting their own points of interest. In enumerating skills, they listed analyzing, writing, and presenting—the latter to an audience. These same skills, they pointed out, will serve them well in the workplace. They felt that research is the "practical application" of what they had learned in prior classes.

They noted that conducting authentic research can be difficult and has the capacity to "push the limits," but also has the potential to be "empowering" and increase confidence. They cited the importance of encountering difficulties and figuring out how to overcome them. Several of them wrote that the undergraduate research experience helped them decide to pursue graduate studies. They felt enlightened and much more confident as a result. Their professionalization comments focused on how these skills will help them in the workplace and look great on a resume.

The mentor played an important role in this transformative experience. Feedback was received more openly and readily as both faculty and peers provided input. As one summed it up, "The mentor made the difference between success and failure."

These impacts on students confirm what Lopatto (2009) found in his extensive assessment of the benefits of UR: experiencing the rewards of designing a project, making discoveries, and sharing findings. Without knowing Lopatto's work, students cited the following benefits,

- Increasing ability to think, learn, and work independently
- Strengthening oral and written communication skills
- Sharpening critical thinking skills
- Developing close relationships with faculty mentors
- Preparing for graduate school
- Enhancing a resume

Students praised faculty in the English department for their openness and willingness to teach students what research in the humanities looks like, how to do it, and how to be successful. Initially, mentors might appear to be intimidating, but students responded to the genuine interest that faculty demonstrated. They acknowledged that research is hard and even "frustrating at points but so worth it in the end". They also credited immersion in research for discovering their own passions and research topics, which shaped career and research interests. The research experience "taught me far more than any class curriculum". This student called it the "greatest learning of my undergrad".

Student respondents offered advice to undergraduates who might be seeking a research experience: "Look for someone who knows how to support you, but also knows how to give you the space to stretch and grow." Expect challenge and welcome it as well as being held accountable. It's easy to feel imposter syndrome or be out of a comfort zone as a new researcher, but mentor investment can turn that around, help explain mistakes, and turn those perceived failures into learning experiences.

Students recognize that faculty may sacrifice their time and energy to invest in UR, and they appreciate that commitment. They advise to seek mentors with similar interests and work styles—to find the good fit.

Conclusions

Our study revealed that UR mentors in the English Department demonstrate many of the salient practices that Shanahan et al. (2015) found, in particular, the importance of setting clear expectations, teaching skills, pairing rigorous expectations with emotional support and caring, and providing and supporting presentations and publications. In fact, care ranked very highly. This may be attributable to the humanistic nature of the discipline, given that much of the teaching in English revolves around discussion-based classes rather than lecture.

With the input from award-winning faculty mentors and students with undergraduate research experience, we not only formed a portrait of effective mentors but also gleaned some recommendations to enhance the practice of UR in our own department. We enumerate them below.

Early Immersion in Research

One-half of student survey participants reported that they became involved with undergraduate research during their senior year while 18% reported engaging in research during their first two years. Finding ways to expose students to meaningful research earlier in the undergraduate career will allow for more time for mentor-mentee relationships and potentially increase the frequency of dissemination opportunities. The Ten Salient Practices note the positive impact student involvement in undergraduate research has as a high-impact activity. The outcomes of undergraduate research can be understood in student retention and ultimately professional and further academic success.

When considering the growth that both mentors and mentees experience through their UR projects, introducing more English students earlier would allow for this growth to happen initially and more often. Allowing students to become familiar with the process would lessen their intimidation as they mature and lead to more authentic research experience within the field. By “authentic,” we mean research on questions for which answers are not yet known, that generate real data and information, and make a contribution to the scholarly knowledge base. Additionally, students who participated in UR could be involved in recruiting students as they have firsthand experience of the intimidation that less-experienced students might feel.

Because UR is a high-impact activity that increases retention, getting students involved as early as possible can contribute to this highly salient practice: "Create intentional, laddered opportunities for peers and 'near peers' to learn mentoring skills and to bring larger numbers of undergraduates into scholarly opportunities." If students with research experience could help first-year students understand research opportunities on campus, more students would take part in undergraduate research. According to our survey, undergraduate research was considered difficult but ultimately worth it. If the humanities were able to spread the word about student experiences with research, perhaps students would request earlier involvement. One way to increase undergraduate research in the humanities is to highlight opportunities when students are first introduced to research strategies in their composition courses. Just as the writing center is viewed as a college resource and writing center tutors often visit the first-year composition courses to talk about its benefits, a group of students who can vouch for undergraduate research could visit composition classrooms to convey the importance of this high-impact practice as well as how to get started.

Thus, one of our recommendations is to structure opportunities for immersion in research as early as possible and to highlight what “research” means in the context of English Studies. “Scaling up” such experiences means that faculty speak research language in their classes and also open a window

onto their own lives as researchers, scholars, and writers. Course-based Undergraduate Research Experiences (CUREs) provide one avenue to scale up so that more students have these transformative experiences.

Demystifying Undergraduate Research

Publicizing undergraduates and their research is also an important element in getting the word out about what research means in the context of English Studies. The Department of English features students on its website in its "stories of success." An Undergraduate Research segment of the website provides information. This could be augmented with public posters, TV screens, social media, or other marketing approaches. It would be particularly important to depict students with their mentors to provide illustrative examples of this type of relationship. Perhaps this could be photographs and social media of mentors with students at a UR venue. Admittedly, these photo ops may not be as colorful as those that occur in laboratory or field settings; however, a nifty photo of a faculty member and research assistant at the Folger Shakespeare Library in Washington, DC provided a window onto the type of research done in English and was picked up by department, college, and university PR sources.

Structuring Undergraduate Research Experiences: Mentor Agreements and CUREs

As Shanahan et al. (2015) found, one of the Ten Salient Practices is to "Do strategic pre-planning in order to be ready to respond to students' varying needs and abilities throughout the research process" (p. 4). The mentors interviewed emphasized the importance of plotting a research path through a project. The students concurred in valuing setting deadlines and holding high standards. At the moment, this is developed by the individual faculty members. To encourage faculty to enter into more UR relationships, the department might develop templates for these road maps, checklists, or timelines for project. The Research Office at the University of Colorado-Boulder has developed this website with sample mentor-student agreements that might be a starting point.

English Differs, Somewhat

For the most part, our project revealed that practices outlined in the Ten Salient Practices aligned with English Department UR mentors. One salient practice did not receive as much attention: "Build community among groups of undergraduate researchers and mentors, including graduate students, postdoctoral fellows, and any other members of the research team" (Shanahan et al., 2015, p. 4). The kind of community that most frequently appeared was classroom based in which students supported one another on their individual projects, providing feedback and critique. This is not quite the same community as the salient practice, which suggests a laddered system of support and supporters. Admittedly, the humanities are a bit different than science-based fields in building research teams or communities due to the nature of the discipline. Labs often have structured teams that include undergraduates, graduate students, post-docs, and faculty. That is atypical in the humanities. It's certainly not out of the question, particularly if grant funding for complex projects were available. While there are research conferences to attend and connect with others studying English, research communities are rarely in place for undergraduate researchers. This practice could be fulfilled by students conducting research as part of a class or even as a club (e.g., English Club, Sigma Tau Delta). In essence, community, while an attribute, may look and function differently in STEM and non-STEM fields.

Caring Counts

Students rated "cared about me" as one of the most important characteristics of faculty mentors. It is on a par with "taught me important skills." It might seem that teaching skills is the most obvious role of a mentor, so it's interesting that students see the mentor caring about them as equally important. It's also telling that all of the mentors mentioned seeing student success as one of the most rewarding elements of the mentoring process. Although it may be obvious, an important

conclusion suggests that practices that create a comfortable relationship between the mentor and the mentee are some of the most important mentors can invoke to generate student interest in research within the English department. This is an attribute of effective mentorship to communicate to the departmental faculty at large, one that should be emulated.

Overall, mentor and mentee relationships are mutually beneficial beyond the context of undergraduate research. The majority of participants in the survey agreed that relationships facilitate confidence in the research process. Both mentors and mentees value their relationships with one another, which can be lifelong. The trust and close relationships—even trending at times to friendships--developed within mentorships stretches beyond undergraduate research. Mentorships offer students a role model to look up to and the support they need to feel motivated to work within a broader research community.

Personal connection is an aspect of UR that all the mentors touched on and was obviously important to the undergraduates who took the survey. Mentors showed genuine interest in the project. Mentors applauded when their students became an "authority" on a topic and found success through sharing the research. The care mentors show toward their mentees results in healthy working relationships and successful projects. This same care also showed up in the frustration and disappointment when a student did not succeed. The faculty members were rooting for them and were saddened by the rare failure to launch.

Although this study focused on a specific department of English at a research university and used a small sample, we believe it has application to other humanities departments beyond our home campus. Conducting a similar study could be a way in to discussing UR and assessing the current climate of an academic unit. These results paint a portrait of effective mentorship. While these were three individual faculty members, shared practices were evident. The student survey involved even more mentors within the department, but, again, commonalities surfaced. Sharing practices of effective mentoring creates an overarching picture rather than just looking at mentors on an individual basis. This portrait provides a window onto the important role that mentors in the humanities play in giving access to this transformative educational experience.

References

Abbott, S., Bellwoar, H., & Hall, E. E. (2020). The importance in mentoring: Benefits and challenges. In D. DelliCarpini, J. Fishman & J. Greer (Eds.), *The Naylor report on undergraduate research in writing studies* (pp. 45-48). Parlor Press.

Baker, V. L., Pifer, M. J., Lunsford, L. G., Greer, J., & Ihas, D. (2015). Faculty as mentors in undergraduate research, scholarship, and creative work: Motivating and inhibiting factors. *Mentoring & Tutoring: Partnership in Learning*, 23(5), 394-410. https://doi.org/10.1080/13611267.2015.1126164

Behling, L. L. (Ed.). (2009). *Reading, writing, and research: Undergraduate students as scholars in literary studies.* Council on Undergraduate Research.

Brown, K. M., Kausen, K.R., & Sarani, K. (2020). Deconstructing authority for truly collaborative mentorship in undergraduate creative writing. *Perspectives on Undergraduate Research and Mentoring*, *8*(1). https://eloncdn.blob.core.windows.net/eu3/sites/923/2020/02/Brown-et-al.pdf

Budwig, N., Alienello, S.E., Harlow, T.M., Hill, M. & Kan, J. (2021). Engaged learning and transitioning to college: Student reflections on a first-year seminar mentored course-based research experience.

Perspectives on Undergraduate Research and Mentoring, *10*(1). https://eloncdn.blob.core.windows.net/eu3/sites/923/2022/02/Budwig-et-al_T2103.pdf.

Council on Undergraduate Research. (2021). What is CUR's definition of undergraduate research? https://www.cur.org/who/organization/mission_and_vision/.

Crawford, I., Orel, S. E., & Shanahan, J. O. (Eds.) (2014). *How to get started in arts and humanities research with undergraduates*. Council on Undergraduate Research.

DelliCarpini, D., Fishman, J., & Greer, J. (Eds.). (2020). *The Naylor report on undergraduate research in writing studies*. Parlor Press.

Fitzgerald, L. (2014). Undergraduate research in writing studies. In I. Crawford, S. E. Orel, & J. O. Shanahan (Eds.), *How to get started in arts and humanities research with undergraduates*. Council on Undergraduate Research.

Grobman, L., & Kinkead, J. (Eds.). (2010). *Undergraduate research in English studies*. National Council of Teachers of English.

Hammack, J., Lewis, R., McMullen, R., Powell, C., Richards, R., Sams, D. E., & Sims, J. (2017). *Mentoring undergraduate research handbook* (2nd ed.). Georgia College & State University. https://kb.gcsu.edu/cgi/viewcontent.cgi?article=1002&context=urace

Handelsman, J., Pfund, Christine., Lauffer, S. M., & Pribbenow, C. M. (2005). *Entering mentoring: A seminar to train a new generation of scientists.* University of Wisconsin. https://www.hhmi.org/sites/default/files/Educational%20Materials/Lab%20Management/entering_mentoring.pdf

Institute for Broadening Participation. (2012). *Mentoring manual: IBP guide to mentoring for all program participants*. Pathways to Science. https://www.pathwaystoscience.org/manual.aspx?sort=6

Johnson, C. D., Hanson, L., & Kunka, J. L. (2011). De-centered discovery: Advancing an undergraduate research culture within the English major. In N. Y. Klos, J. O. Shanahan, & G. Young (Eds.), *Creative inquiry in the arts & humanities: Models of undergraduate research*, (pp. 33-42). Council on Undergraduate Research.

Kinkead, J. (2012). What's in a name? A brief history of undergraduate research. *CUR Quarterly*, *33*(1), pp. 20-29. https://www.cur.org/assets/1/7/331Fall12KinkeadWeb.pdf.

Klos, N. Y., Shanahan, J.O., & Young, G. (Eds.). (2011). *Creative inquiry in the arts & humanities: Models of undergraduate research*. Council on Undergraduate Research.

Lopatto, D. (2009). *Science in solution: The impact of undergraduate research on student learning*. Research Corporation for Science Advancement.

Moore, J. L., Abbott, S., Bellwoar, H., & Watts, F. (2021). Mentoring: Partnering with all undergraduate researchers in writing. In D. DelliCarpini, J. Fishman, & J. Greer (Eds.), *The Naylor report on undergraduate research in writing studies* (pp. 29-43), Parlor Press.

National Academics of Sciences, Engineering, Medicine. (n.d.). *The science of effective mentoring STEMM.* https://www.nationalacademies.org/our-work/the-science-of-effective-mentoring-in-stemm.

Pierszalowski, S., & Buser, T. (2021). *Mentoring the next generation: Using undergraduate research to broaden engagement and impact in STEM*. Center for Advancing Research Impacts in Society: Fellows Series. https://broaderimpacts.netlify.app/undergraduate-research/index.html#/

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*, *23*(5), 359-376. https://doi.org/10.1080/13611267.2015.1126162

Shawyer S., Aumiller, R., Hall, E., & Shively, K. (2019). Mentoring undergraduate uesearch in theater and dance: Case studies of the salient practices framework in action. *Perspectives on Undergraduate Research and Mentoring*, *8*(1). https://eloncdn.blob.core.windows.net/eu3/sites/923/2020/02/Shawyer-et-al.pdf

Sinor, J., & Graham, M. S. (2020). Finding the words: An epistolatory essay on mentoring in the creative arts. *Perspectives on Undergraduate Research and Mentoring*, *8*(1). https://eloncdn.blob.core.windows.net/eu3/sites/923/2020/02/Sinor-Graham.pdf

Temple, L., Sibley, T. Q., & Orr, A. J. (2010). *How to mentor undergraduate researchers* (2nd ed). Council on Undergraduate Research.

Vandermaas-Peeler, M., Miller, P. C., & Moore, J. L. (Eds.). (2018). *Excellence in mentoring undergraduate research.* Council on Undergraduate Research.

Appendix. Lists of Interview and Survey Questions

Interview Questions for Faculty

1. How would you define undergraduate research?
2. Describe the undergraduate research projects you have mentored—have they been one on one, full class, or another model? Do you involve undergraduates in your own research?
3. [Depending on previous answer; skip if not applicable] If you work one-to-one on a project, how do you choose a student to mentor? Who initiates the relationship?
4. [Depending on previous answer; skip if not applicable.] Do you ever turn away a potential mentee?
5. What preparation takes place before your initial meeting with a potential undergraduate researcher?
6. How do you set clear expectations and deadlines for your undergraduate researchers?
7. What technical skills do you teach to undergraduate researchers? (e.g., literature review, writing a proposal)
8. What skills and benefits do you think undergraduates gain as a result of conducting research?
9. How do you build confidence in undergraduate researchers?
10. How do you help your student researcher recognize that they're part of a broader, scholarly community?
11. How many of your undergraduate research mentees have presented at a conference?
12. How do you prepare students to share their work? Do you expect them to? How do you help them find opportunities to share?
13. How is your role as a mentor viewed in terms of faculty roles and rewards?

14. What are the challenges faced by mentors of undergraduate research in a humanities area such as English?
15. What is your motivation for being involved in undergraduate research? How do you benefit as a mentor?
16. What advice would you give to someone who is starting to mentor undergraduate researchers?
17. Would you say that the Department of English has developed a "culture of undergraduate research?" If so, why or why not?
18. Is there anything we haven't asked you that you would like to share with us?

Survey Questions for Students

1. When were you involved in undergraduate research?
2. My undergraduate research project was (check all that apply): part of a class project as a group; part of a class but done individually; an independent research project; other.
3. I did an independent research study: Honors thesis/contract; directed study; grant; other.
4. If you shared your research publicly, where did that occur? (Check all that apply.) University symposium; Department research symposium; UCUR; Research on Capitol Hill: Sigma Tau Delta; Honors conference.
5. What tasks did your mentor help you with on your research project? (Check all that apply.) Setting deadlines; forming research questions; writing a research proposal; choosing a research method; creating an oral presentation or research poster; rehearsing for public presentation; submitting an IRB proposal; other.
6. What attribute or characteristics of your faculty mentor did you value the most? (Choose up to three.) Held me accountable to high standards and deadlines; taught me important skills, methods, and techniques of conducting research; helped me plan the research process so I could be successful; cared about me; expert in field; knowledge about how to share research publicly; increased my sense of ownership of the research over time; networking; letters of reference; helped me understand ethics in conducting research; helped me feel a member of a community involved in research.
7. How satisfied were you with your mentor's investment in you and your project?
8. My mentor helped me to be prepared for success in my academic field or career.
9. Would you recommend a research experience to other undergraduates?
10. If another student asked for your advice in choosing a faculty mentor, what would you say? What characteristics should they look for?