Assessment Report
2017 Summer Research Employment Program

Overview

In the current version of the most recent College of Charleston Strategic Plan, the first goal is to provide students a highly personalized education based on a liberal arts and sciences core and enhanced by opportunities for experiential learning. The highest ranked tactic to meet this goal is the *integration of classroom learning with at least two of the following: research and creative activities, civic engagement, study away, internships, and peer education.* To this end, the College has established and enhanced numerous programs and offices to promote these types of high impact learning experiences. A review of reports from the college-wide Undergraduate Research and Creative Activities office that funds mentored research activities revealed disproportionate participation of EHHP majors compared to other majors. To better understand the reasons leading to these data, the Center for Partnerships to Improve Education (CPIE) administered a survey on Faculty Mentored Undergraduate Research to all full-time faculty in EHHP in Fall 2016. Among the findings was the need for student stipends to support participation in mentored research.

In response to these findings, CPIE piloted the Summer Research Employment program in summer 2017 to offer a limited number of EHHP students the paid opportunity to develop research skills under the mentorship of an EHHP faculty member during a summer session— Maymester (approximately 2.5weeks), Summer I (approximately 4.5 weeks), or Extended Summer (approximately 6.5 weeks). EHHP faculty members were invited to share information about Summer Research Employment with students with whom they would want to work. Interested students then applied for employment through CPIE, the hiring office. All students who applied were hired at a rate of $11 per hour for up to 20 hours per week. They worked under the direct supervision of the inviting faculty member during the specified summer session.

Six faculty-student research teams participated, including six students and seven faculty members. One team was comprised of two faculty members and one student, but all other teams were made up of one faculty member and one student. To measure the effectiveness of Summer Research Employment, all thirteen participants were asked to complete reflection surveys. The students completed their surveys near the end of June 2017, prior to receiving their final paycheck. Faculty members received surveys in mid-September 2017 and were given a 2.5 week response window. In general, the items on the faculty and student surveys were the same. They both addressed specific themes—the researchers, research, impact, overall perception, and final thoughts—and in the same order. The items were written for the specific target audience, therefore slight wording differences were needed. In some cases, there was no student equivalent to a question posed to the faculty, therefore the faculty survey had more questions addressing two themes (impact and overall perception) than did the student version. In total, the faculty survey was comprised of 16 items, whereas the student survey was made up of 15 items.

With the exception of one faculty member, all Summer Research Employment participants completed the survey, for a 92% response rate. The one professor who did not respond was part of the research team consisting of two faculty members. The other faculty member in that team completed the survey, therefore faculty/student input from all six research teams was equally balanced.

The researchers
Six research teams participated in Summer Research Employment (SRE). These teams were evenly split across the two departments, TEDU and HEHP. Five of the six faculty respondents (83%) were tenure-track but not tenured. The one (17%) tenured professor was housed in HEHP. Fifty percent of the students (n=3) were classified as seniors, 33% (n=2) as juniors, and 17% (n=1) as a graduate student. All three seniors were housed in HEHP and the remaining students were in TEDU.

The research
Both surveys included several items about the particular research project on which the research team worked. The purpose of these items was to ascertain whether or not faculty members and students on the same team possessed a shared understanding of various aspects of the research they conducted.

Participants were asked to provide a brief description of the research project. The range of responses from both faculty and students included no response (n=3), a phrase/title (n=2), a sentence (n=5), or a paragraph (n=2). In the four teams in which both faculty and student responded, members of each pair demonstrated a common understanding, albeit with differing levels of explanation. Interestingly, two individuals who did not respond represented the same research team. Only one pair were unbalanced in their responses; that is the faculty member responded but the student did not.

Both faculty and students were asked to describe the student's contributions to the research project. Four (67%) of the six research teams confirmed a shared understanding as evidenced by descriptions that mostly align. In each set of descriptions, one specific contribution may have been omitted or understated by either the student or faculty member; however no glaring differences in the explanations of students' roles were observed. The table below shows the responses of these four teams. It should be noted that each row represents a different research team.

Faculty	Student
The student analyzed qualitative data (videos and text) and did coding in NVivo 11. The student also contributed to the writing of the article that we submitted to a peer reviewed journal.	*My job was to code/analyze video data of the class and to write in the publication about my findings and themes I saw.*
[Student] helped with the IRB and data collection over the summer.	*I contributed to this project by completing research paperwork (IRB), collecting data, and by providing descriptive and statistical analyses of the data*
[Student] assisted me in collecting relevant research articles and organizing them into a table format. This information was used in writing the IRB and will be used in future manuscript preparation.	*Worked in the lab to figure out the equipment for project. Started researching articles and start an outline to write the introduction of the research paper.*
The student researchers helped us analyze data, write the research project, and submit it for publication. The student researchers also helped submit two proposals to the [upcoming professional] conference.	*I worked analyzing the previously collected data (coding video using NVivo), contributing to weekly meetings (in person and via Skype), communicating my findings throughout the process and in a final written research report.*

For two research teams (33%), comparing the descriptions of the students' contributions was not possible. In one team, neither member responded to the item. For the other team, only the faculty member responded.

SRE participants were asked if they worked as part of a larger research team comprised of at least one other faculty-student pair. The response choices were *Yes – We worked closely with the other pairs(s) on the team*; *Yes –We worked on related projects, but not directly with the other pair(s) on the team*; *No other faculty/student pair was on the team*; and *Other*. 83% (n=5) of research teams indicated working as part of a larger research team. All of the faculty and student responses were the same, except in one case in which the faculty member selected *Yes – we worked closely* and the student selected *Yes – we worked on related projects, but not directly*. From personal communication with some of the faculty members, it is known that the three research pairs involving TEDU collaborated on a single project.

Another question asked, "*Within the context of your research, did you collaborate with an external organization or entity (i.e. not the College of Charleston)*?" 100% of the faculty members selected *No*, whereas only 17% (n=1) of students chose the same response. Two students (33%) and three students (n=50%) selected *Not sure* and *No*, respectively. It should be noted that only students had the option to choose *Not sure*.

Both faculty and students were asked to identify the statement that best describes their relationship to the research. The exact wording of the response choices differed for faculty and students, but the meanings were consistent across surveys. The choices represented the following four relationships: student assisting with the faculty member's research; faculty assisting with the student's research; the student and faculty collaborating on a shared project; or other (with explanation). Five (83%) of the research pairs showed mutual agreement between faculty and student that 50% (n=3) of the research projects were faculty-student collaborations and 33% (n=2) were students assisting faculty. One (17%) research pair was a split decision in that the student indicated the research project was shared while the faculty members selected *Other*. The accompanying explanation described how the full team (including other faculty/student pairs) worked together under the leadership of a named faculty member.

What was the impact of the research experience?
Participants were asked to respond to several items intended to understand the impact of the program on their work and learning, respectively. The table below includes responses to items with faculty and student versions. Each row represents a different research team.

Faculty- In what ways has mentoring a student researcher enhanced your work at the College of Charleston?	Student – In what ways has the research experience enhanced your learning at the College of Charleston?
Working with the whole team makes me wish I had more time for collaboration. This was a great experience and I would like to do it more often. I think for preservice teachers it opens up the door to many possibilities. It removes the idea that only a PhD can publish. I have a feeling this empowerment can really influence our future teachers. My hope is that if I get tenure I can focus more on things that are rewarding to all.	*It has enhanced my graduate experience by giving some opportunities to build a research resume.*

Students help me to stay accountable to timelines that I set. They have creative ideas and fresh ways of thinking about a standard challenge, for example, subject recruitment.	*I learned that the research process is more in depth and complicated. I learned there are so many more steps in the research process than I originally thought.*
It really helped me get better at collaborating and managing the coding process in NVivo.	*This experience has been really helpful and fun for me. Throughout working with my professors I have learned so much about how to conduct, analyze, and write publications on research. Working closely with professors in the field you are studying is a great experience to learn more about how the field operates and to create a friendship with professor who will be teaching my classes for the next few years.*
It helped me think through my research as I was working collaboratively with colleagues and my students. I also gained from the experience by guiding/mentoring the students in the research process.	*I was able to see my professors in the "other role" that they serve in at the College. I strengthened my relationships with these professors in a mentor capacity. They helped me overcome fears and biases that will make me a better student.*
This experience has put this opportunity on my radar. As I take students to study abroad, I am considering how this could be incorporated into their course. I also will be doing [a local project] and I wonder if we could use this program during the school year to employ students as researchers for that (which would be great!) Or even for [a different local project]. The possibilities are endless!	*I think this experience has positively impacted my relations.*
In most cases, it takes longer to get work done with students, but in this case [student] was able to assist with moving the project ahead.	*Pushed me to learn more about my field of study that aren't [sic] offered through classes*

In addition to the above items for which there were faculty and student equivalents, other items pertaining to faculty only were included on the survey.

Faculty were asked to describe how they will include their participation in Summer Research Experience in the faculty review process. Their responses were as follows:

- o *Tenure portfolio* (2 faculty members)
- o *Evidence to support my role as a teacher/mentor to students*
- o *Example of my scholarly work*
- o *Under "mentoring undergraduate students" and evidence of research activity and production*
- o *Mainly as service*

When asked to identify the scholarly activities that have resulted from this research experience, faculty responded with:

- o *Submission to peer-reviewed journal* (two faculty members)
- o *Two accepted conference presentations* (two faculty members)
- o *Currently preparing a manuscript for review* (two faculty members)
- o *None so far, but future plans include submitting manuscripts and conference presentations*

One faculty member expressed the following concern about how the scholarly work would be weighted due to the number of co-authors:

> *The value, or "weight" of the publication will be called into question as we collaborated on this and ultimately had [multiple] authors. I think it should count very highly given it's a lot of work pulling this team together and guiding students in the process.*

Students were asked to *describe the extent to which you believe the research experience has better prepared you for upcoming coursework, graduate school, or your career*. The responses were as follows:

- *I think this will help me when applying to future programs.*
- *I think the research experience has helped me realize that I am interested in research and I'm prepared for graduate school to work with others and understand the research process I may be doing later on in my education experience.*
- *I learned about creative thinking in ways that I can continue to incorporate in my own classroom. Through analyzing the instruction of these professors, I have strengthened my knowledge of effective teaching.*
- *I feel that this research serves as a perfect bridge between what I learned in my [specific class] last semester and [my professional/graduate school plans]. By first learning about concepts, such as the scheduling of practice, in the classroom, and then having the chance to apply it through research and practice implementing in a practical setting, I feel that I have gained a far more wholesome learning experience. I have no doubt that this research opportunity will help me to thrive as a [professional/graduate school] student in the future.*
- *Like I said before, creating friends and getting to know the professors better will help in their future classes. The research we conducted has really broadened my mind on the field of education and just how expansive it can be. I am sure all of the researching skills I have learned through this experience will help me throughout grad school.*
- *Summer research has thoroughly prepared me for grad school.*

Overall Perception
Both faculty and student participants were asked to rate their overall perception of Summer Research Experience. Response choices were *Highly Satisfied*, *Somewhat Satisfied*, *Unsure*, and *Dissatisfied*. Eleven of the 12 respondents (92%) selected *Highly Satisfied*. One student (8%) chose *Somewhat Satisfied* and included the following comment: *short amount of time to do the research needed*.

Other comments from students were:
- *I gained a lot of experience doing research; it has taught me so much and will be helpful when I go to graduate school*
- *I very much enjoyed this experience. I feel that it is a unique opportunity to have as an undergraduate student and I am thankful to have been part of it.*

Faculty comments were:
- *I think this is great; we need to continue these opportunities for our students*
- *Student was very eager to assist me with this project*

When asked, "*How likely are you to participate in the Summer Research Employment program again?*"100% of faculty members responded *Very Likely*. One mentioned a specific research project that could benefit from the involvement of a student researcher. Another faculty

member stated that *I think with the right project/assignment and student, it can be very beneficial to faculty to have assistance and accountability over the summer months.* Students were not asked this question.

Final Thoughts
Faculty and students were asked about the program's organization and hiring process, respectively. They were also given the opportunity to include comments. Students were asked to consider the quality of information, application, notifications, and professionalism of CPIE staff when rating the hiring process. The ratings ranged from one star for *poor process* to five stars for *very good process.* Five of six students (83%) selected *very good process*. One student did not select a rating. No students commented on the ratings.

Faculty were asked to consider the quality of information, communication, timeliness, validation of students' hours worked, and professionalism when rating the organization of the program. The star ratings ranged from one star for *poorly organized program* to five stars for *very well organized program*. Four of the six faculty members (67%) selected *very well organized program*. Two faculty members did not choose a rating. Three of the faculty members commented, including the two who did not rate the program. Their comments are,
- o *It was great! I know the students got a lot out of this, and they also got paid. This validates their hard work and efforts. Bravo!*
- o *It would be beneficial to get confirmation that students were getting paid for their work.*
- o *Excellent work, and a great resource. For the first time through...this was an invaluable tool for me. I will definitely sign up again.*

The final item on both surveys encouraged respondents to include additional comments. Only one student commented, saying
> *Thank you so much for enabling me to take part in this opportunity to apply what I have learned in the classroom.*

Two faculty members commented with
- o *As stated earlier, it would be great to employ students to research during the school year; it is hard to find volunteers, but by getting paid, the students take more pride in their work, show up on time, and take it very seriously.*
- o *Thanks again for the opportunity. Will look for more funds to work these students and colleagues.*

Summary of Results
It is clear that Summer Research Employment was a beneficial experience for both students and faculty. The opportunity to participate in mentored research allowed students increased students' understanding of the research process while enhancing their interactions with faculty members. Students also viewed the experience as good preparation for future career and schooling. In all, students described Summer Research Employment as a satisfying experience.

Similarly, faculty experienced benefits as a result of Summer Research Employment. Mentoring student researchers helped faculty improve their collaboration and technical (i.e. coding) skills while providing new perspectives from which to approach the research. Additionally, Summer Research Employment provided a layer of accountability that some faculty may need during the summer months. Through the program, faculty were able to interact with students in a new context, and are now motivated to mentor future summer

researchers. In all, faculty described Summer Research Employment as a satisfying and productive experience.

Assessment and Future Plans
It is clear that Summer Research Employment is viewed as a useful resource for encouraging mentored research and faculty-student collaborations, as well as enhancing learning and scholarly productivity for students and faculty, respectively. To regularly examine the program, an assessment plan has been developed. Each summer, at the conclusion of that year's program, student research experience data will be collected via the Student Research Reflection Survey. Financial data will also be compiled. Each fall following the conclusion of the program, faculty research mentors will be surveyed. The student, faculty, and financial data will be analyzed and documented in an annual report that includes trends and use of data for continuous improvement. Every even summer, beginning in 2018, a comprehensive impact report will be authored using faculty and student research data from the preceding years. The previous year's report will provide baseline data.

The summer 2017 pilot program was successful, therefore Summer Research Employment will be implemented during the 2017-2018 academic year.