From Classroom to Community:
Enhancing Undergraduate Research through an
Interdisciplinary Cohort Model

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ABSTRACT

While scholars have found that undergraduate involvement in research is beneficial, the lack of such experiences in the social sciences and humanities is glaring. This paper analyzes how an emphasis on community through cohort models impacts undergraduate student experience in research, taking from the Emerging Scholars Program, an interdisciplinary research program where cohorts of undergraduates are matched with faculty and attend meetings, workshops, and presentations together. We find that the cohort model created a robust community that fosters positive relationships that develop professional skills and emotional support, allowing students to collaborate and aim more toward their professional goals. The results from this study offer valuable insights into how universities can ensure that students have meaningful research experience beyond the classroom.

Keywords: cohort model, community-building, emerging scholars, undergraduate research**.**

INTRODUCTION

The growing literature on undergraduate student experiences in research seems to agree that providing opportunities for undergraduate students to be involved in research offers benefits to students, their faculty mentors, and higher education

institutions. Such benefits for students include the development of skills in conducting research, writing, and public speaking (Bauer & Bennett, 2003). Undergraduate research opportunities are also cited for producing other benefits, such as sparking interest in pursuing graduate degrees and increasing graduation rates (Lopatto, 2004; Craney et al., 2011; Russell et al., 2007; Zydney et al., 2002).

However, the current scholarship lacks analysis of undergraduate experiences in research in the humanities and social sciences, as much of the current literature focuses on undergraduate research in STEM fields (Linn et al., 2015; Hunter et al., 2007; Russell et al., 2007; Tan et al., 2022; Zydney et al., 2002; Thies & Hogan, 2005; Rand, 2016). In addition, to date, little work has analyzed the effectiveness of community-based models such as the cohort model on undergraduate student research experience in the humanities and social sciences. In this paper, we address these gaps by analyzing undergraduate research experiences from students in the social sciences and humanities through their participation in the Emerging Scholars Program, a community-based cohort model research program that matches undergraduate students to research projects developed by faculty at the University of Massachusetts Lowell.

The Emerging Scholars Program was founded by an interdisciplinary team of professors in 2011, aiming to fulfill two needs in the College of Fine Arts, Humanities and Social Sciences at UMass Lowell. First, as most of the school's graduate programs were only established after 2012, faculty members needed trained research assistants. Second, undergraduate students in the college face a shortage of opportunities to participate in more research-focused experiences that could open doors in their pursuits toward graduate education.

For our project, we first surveyed alums from the program and asked about their experiences with specific features of the program (meeting other students and faculty, connections made, relationships with student coordinators, research topics, and relationships with mentors). Then, we interviewed alums to delve deeper into their experiences and inquire about their memories from their time in the program, their challenges, and the interdisciplinary aspect of the program. The interviewed alums had graduated from the program between 2011 and 2020 and were randomly selected from those who had completed the initial survey.

We found that the cohort model effectively built a robust community that fostered positive relationships between students, mentors, and fellow colleagues. These relationships, in turn, are crucial in the development of professional skills such as public speaking and foster a layer of emotional support that allows students to collaborate on shared solutions and aim higher in their professional goals. Overall, the results of our study offer valuable insights into how universities can ensure that students, especially those in the social sciences and humanities, have successful, meaningful, and impactful research experience beyond the classroom. Since ensuring academic success, professional skills, and overall positive student experience are some of the main goals of an undergraduate education, the results

from our study are invaluable in the endeavor to improve undergraduate student research experiences. starts here.

STRUCTURE OF THE PROGRAM

The Emerging Scholars Program is structured to have a leadership team composed of three faculty members who oversee the operations of the program, facilitate the yearly pairing of students and faculty projects, and promote training for mentors. Two graduate students additionally supervise student operations and act as a point of contact between undergraduates and their mentors. Just like the initial team who founded it, the program is interdisciplinary, and students are often matched with professors from outside their majors. Students also receive a stipend to help support them while participating in the program.

Faculty are selected by filling out an application explaining their research project in detail, the expectations for the student mentee, and a plan of action for the academic year, aiming for students to be exposed to multiple steps of the research process. Faculty mentors are then interviewed by members of the leadership team, who highlight the expectations of the program.

Students are selected through a two-step application process. First, they need to meet certain requirements, such as having a minimum grade average point (GPA) of 3.25, standing as a full-time junior or senior undergraduate student, and majoring in the College of Fine Arts, Humanities and Social Sciences. Students are also asked to submit a writing sample, their résumés, and a recommendation from a faculty member. Finally, student applicants choose their first three choices from a list of faculty projects. The leadership team then matches students with projects that fit their interests and interviews students and their prospective mentors. This interview is structured to not only give faculty a chance to learn more about the student but also to give students the opportunity to review the expectations of the program and to ensure that they are comfortable with the match that was made.

Approximately 10 students are selected each year. Once chosen, students are expected to work on their research projects for approximately 9 hours a week, although they are able to shift hours to accommodate their academic schedules and responsibilities. The specific tasks that students are required to complete vary by project but include brainstorming research questions, engaging with relevant literature, collecting and analyzing data, and participating in the writing of a paper, poster, or flyer. They also meet with their mentors for at least one hour every week and keep logs of the research activities they are conducting. It is also important to note that although faculty mentors can participate in the program for many years, each student can only participate for one academic year.

The program has three scheduled yearly events. First, an orientation aims to bring all selected students and faculty together for the first time and to answer general questions. At the end of the first semester of the Mid-Year Event, students

present their work to a broader audience of mentors, department chairs, and college deans. Finally, at the end of the academic year, students present their finalized work at a university-wide Student Symposium.

Students also attend monthly meetings with the other members of their cohort and the student coordinators. During these monthly meetings, students share the status of their projects, collaborate on shared solutions to problems, and are introduced to professional development workshops. These meetings are pedagogically structured and include activities for community building, such as check-in sessions, games, and group activities. Likewise, faculty mentors attend monthly meetings with all other mentors in which they work together to generate shared solutions for possible challenges and share mentoring strategies and research tools.

LITERATURE REVIEW

Scholarship on undergraduate student experiences in research in the United States is a relatively new field of study, with most scholars conducting research in the past two decades. Given the novel nature of this research topic, most scholars in the first decade of the 21st century focused on evaluating undergraduate research programs and measuring the potential benefits of undergraduate students in research. Bauer and Bennett (2003) offer widely cited evaluations of the benefits of integrating research and education (IRE). The results of an extensive alumni survey suggest that participating in undergraduate research programs provides several benefits (Bauer & Bennett, 2003, p.225-227). Such benefits include the ability to conduct research, the strengthening of communication skills such as writing and speaking, and increases in "independent achievement", such as individual problem solving (Bauer & Bennett, 2003, p.225-227). The survey results also suggest that undergraduates who participate in research are more likely to pursue graduate study and complete master's and doctoral degrees (Bauer & Bennett, 2003, p.226). Other scholars argue that research undergraduates enjoy similar benefits, such as enhancing and improving educational experiences; increasing interest in pursuing graduate degrees, especially in science, technology engineering, and math (STEM) disciplines; achieving academically; increasing graduation rates; and providing opportunities for professional, personal, and intellectual development (Lopatto, 2004; Linn et al., 2015; Craney et al., 2011; Hunter et al., 2007; Russell et al., 2007; Tan et al., 2022; Zydney et al., 2002). The scholarship also provides nuances to the previously described benefits by considering the idea that the benefits of research experience during undergraduate study may differ or depend on other factors, such as race, ethnicity, gender, socioeconomic status, mentor-mentee relationships, and faculty motivations (Lopatto, 2004; Craney et al., 2011; Morales et al., 2017).

An additional area of scholarship featured in the literature concerns the viability and benefits of undergraduate research in the social sciences and the humanities. Much of the formative literature focuses predominantly on

undergraduates conducting research in STEM concentrations and disciplines, with a dearth of research on the humanities and social sciences (Linn et al., 2015; Hunter et al., 2007; Russell et al., 2007; Tan et al., 2022; Zydney et al., 2002; Thies & Hogan, 2005; Rand, 2016). However, scholars have more recently focused on undergraduates conducting research in social sciences and humanities disciplines such as political science. While it is apparent that undergraduate students often take research methods classes in political science (Thies & Hogan, 2005; Parker, 2010), the literature also analyzes and evaluates potential models for how undergraduates can participate in social science research (Griffith, 2023). These models include traditional mentorship with a faculty member (Ishiyama, 2002; van Gotch & Lutz, 2023; Simon et al., 2023), community-based projects as part of a course, and senior seminars (Crowe & Boe, 2019). Scholars also consider methods to improve undergraduate research in the social sciences, such as talking and communicating with peers and mentors throughout the experience, emphasizing particular apprenticeship models, and paying attention to emotions (Rand, 2016). Overall, the topic of undergraduate research experiences in the social sciences and humanities leaves room for future research and consideration.

A final and recent development in the scholarship relates to alternative models of undergraduate research in addition to the standard apprenticeship or mentor-mentee model. The apprenticeship model involves an undergraduate student conducting research independently with the guidance of a faculty member, often in a laboratory (Wei & Woodin, 2011, p. 123). However, this model may not be feasible for all institutions since it requires a great deal of funding, resources, and faculty time (Wei & Woodin, 2011, p. 123). By comparing real-life models and projects, Wei and Woodin (2011) analyze alternative ways for undergraduates to conduct research in biology. The alternative models include collaborative group projects, incorporating research in biology courses, and service-learning opportunities (Wei & Woodin, 2011). Other scholars also consider the importance of building a research community or implementing a cohort model to enhance experiences, build communication skills, and alleviate challenges (Balster et al., 2010; Kendricks & Arment, 2011; Maaz et al., 2022). Other scholars present their own model as a case study and explore the potential application of such models to other institutions of higher education (Tan et al., 2022; Kendricks & Arment, 2011; Maaz et al., 2022). Finally, alternative models of undergraduate research present the opportunity to render research experiences more inclusive and accessible to underrepresented minorities by breaking down barriers and expanding access. While Bangera and Rownell (2014) suggest that bringing research experience into the classroom can assist in developing a more inclusive and accessible program, Kendricks and Arment (2011) suggest that a K-12 family model can increase research achievement among minority students. However, research on alternate models of undergraduate research in addition to the standard apprenticeship model

has focused primarily on STEM disciplines and excluded the humanities and social sciences, leaving this area open for future consideration.

Numerous theoretical frameworks also offer valuable perspectives for comprehending undergraduate student experiences in research programs such as Emerging Scholars. Among these frameworks, Social Learning Theory (Bandura & Walters, 1977) stands out as particularly pertinent. This theory underscores the significance of observation, modeling, and social interaction in the learning process. Within the context of the Emerging Scholars Program, students have the opportunity to observe and model the behaviors of experienced faculty mentors and peers, which can profoundly influence their acquisition of research skills and knowledge. Social Learning Theory also highlights the importance of feedback and reinforcement, which are integral components of a program's structure. Moreover, this framework addresses the development of self-efficacy, emphasizing that as students witness successful research practices, they are more likely to believe in their capacity to excel in research. While other theoretical frameworks, such as Experiential Learning Theory (Kolb & Kolb, 2017) or the Community of Practice perspective (Wenger, 2011), offer valuable insights into learning through experience and shared engagement, they do not encompass the full spectrum of social learning elements present in the Emerging Scholars Program. In light of its emphasis on observation, modeling, feedback, and self-efficacy, Social Learning Theory has emerged as the most appropriate theoretical framework for comprehensively understanding how students acquire research skills and knowledge within the Emerging Scholars Program.

Our project on the Emerging Scholars Program works to fill the significant gaps in the literature, particularly the lack of research on the significance of the cohort model, the effect of community-based learning in conjunction with the apprenticeship model, and undergraduate students conducting research in the humanities and social sciences outside the classroom. In this way, our project contributes novel and valuable knowledge to the scholarship on undergraduates in research.

METHODS

In this paper, we use a combination of survey and semistructured interviews to gather data on student experiences in the Emerging Scholars Program. We first sent an email containing the survey to the 73 alums who graduated from the program between 2011 and 2020, representing the total number of alums of the program itself from the program's inception until 2020. We chose to only reach out to all the alums who graduated from the program before 2020 since the COVID-19 pandemic forced the program to change to fully virtual during the 2020–2021 academic year and transition back to in-person during 2021–2022. The Emerging Scholars Program has maintained an up-to-date list of alumni emails and contact information, and we used this list to recruit participants for our survey.

Seventeen of the original 73 alums contacted answered an anonymous survey. We used software called Qualtrics to develop a survey that evaluates the influence and impact of various features of the Emerging Scholars Program. Before launching the survey, we received feedback and edits from peers, colleagues, and faculty advisors. The survey asked the alums to identify and rank which features (meeting other students and faculty, connections made, relationships with student coordinators, research topics, and relationships with mentors) of the program were most influential on their research experiences. Students were also asked to rate specific aspects of the cohort model, such as events (orientation, monthly meetings with other students, weekly meetings with their mentors), presentations (mid-year and Student Symposium) and professional development opportunities, such as workshops.

In the second step, we randomly selected 6 alums from the 17 who completed the survey to participate in semistructured interviews that allowed us to delve more deeply into their experiences as part of the Emerging Scholars Program. Our questions focused on the interviewees' involvement in specific Emerging Scholar events, the challenges they experienced in the program, and the interdisciplinary aspects of the program. We conducted these semistructured interviews virtually via Zoom, as the participants were located in different regions of the U.S. and the world. Each of the Zoom interviews lasted between 25 and 55 minutes, depending on how much the interviewee shared with us. With permission from the participants, we recorded and transcribed the interviews using Zoom software. We reviewed the Zoom software's automatic transcriptions of the interviews and corrected any errors in the transcription.

After conducting the survey and the semistructured interviews, we analyzed the data from both sources collectively. We used Qualtrics software to develop charts, graphs, and visual representations of the survey results. Participants also contributed narratives in paragraph form as part of the survey. We exported the results and visual representations to a Word document and identified the main themes and trends through modified data-driven open coding (Saldaña, 2021; Gibbs, 2007). We also used data-driven open coding to analyze and identify the themes in the interview transcriptions using a Word document and comments (Saldaña, 2021; Gibbs, 2007). Finally, we compiled the themes from both the survey results and the interviews and identified which themes cut across both data collection methods.

ANALYSIS AND DISCUSSION

We can draw three main conclusions from an analysis of the results from the survey and the semistructured interviews. First, the results from our study coincide with the benefits of undergraduate students in research discussed previously in the literature. Second, our study suggested that the most impactful aspect of the

Emerging Scholars Program was relationships with fellow students in the program and faculty mentors, although relationships with faculty mentors proved to be more meaningful than relationships with cohort members. Third, the results from our study indicate that the community aspects built into the structure of the program were meaningful in a variety of ways, including providing space for interdisciplinary study, opportunities for building professional development and skills, and providing emotional support. In this section, we conceptualize descriptors such as "impactful" and "meaningful" to indicate that the program has a long-lasting influence on the students' lives and successfully accomplishes the overall goals of the program, including fostering community and building a safe space to network and improve skills. While all three of these results are significant and contribute to the literature, we will focus most of the discussion on the third conclusion.

First, the results from our study reinforce and support the benefits of undergraduate students in research discussed previously in the literature. Such benefits include the development of qualitative and quantitative research skills, the enhancement of communication skills both written and oral, improvement of the overall educational undergraduate experience, and interest in graduate school or work that focuses on research. The benefits that we found in our study are a reiteration of such benefits expressed in previous literature, such as Bauer and Bennett (2003), Lopatto (2004), Linn et al. (2015), Craney et al. (2011), Hunter et al. (2007), Russell et al. (2007), Tan et al. (2022), and Zydney et al. (2002). Overall, the results from our study reiterate and reinforce the previously cited benefit of undergraduate experiences in research, as these two survey quotes demonstrate:

> I found my passion for immigration research and museum curation through the Emerging Scholars program. My experience in the program shaped my career after graduating from UML.
>
> The program gave me invaluable collaboration skills, completely improved my public speaking, and strengthened my research skills. I felt a new level of confidence in myself, my writing, and my skill set overall after completing the program. It was such a professional opportunity to have as an undergrad.

Second, while the most impactful aspect of the Emerging Scholars Program according to our results is the relationship with fellow students and faculty mentors, our results ultimately suggest that the students' relationship with the faculty mentor was the most important. In fact, 76.47 percent of the Emerging Scholars alumni respondents indicated that the opportunity to meet other students and faculty in the program had a very positive impact on their experience, while 23.53 percent cited this as somewhat positive (see Figure 1 and Table 1 below).

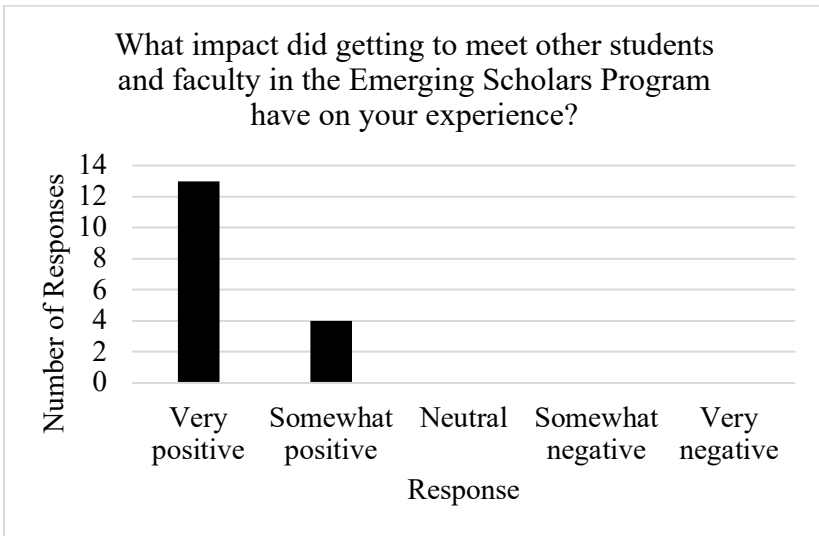**Figure 1: Relationships with Fellow Students and Faculty Mentors**

Table 1: Relationships with Fellow Students and Faculty Mentors

What impact did getting to meet other students and faculty in the Emerging Scholars Program have on your experience?

Impact	Percentage	Count
Very positive	76.47%	13
Somewhat positive	23.55%	4
Neutral	0.00%	0
Somewhat negative	0.00%	0
Very negative	0.00%	0
Total	100%	17

Several alums in the interviews also cited the relationships built in the program, both between fellow Emerging Scholars, faculty mentors, and other faculty associated with the program, as being meaningful to their overall experience in the program:

I still keep in touch with other students in the program, and it's great to see how we have grown together. I also had a wonderful faculty mentor who motivated me to do things I never thought I could.

My relationship with the faculty member was the most positive element of my experience. They are the reason I, a first-gen student, went on to pursue my masters.

The results indicate that the relationship with the faculty mentor, beyond the relationship with fellow students, proved to be the most influential and

impactful aspect of the program. A total of 76.47 percent of the alumni cited their relationship with the faculty mentor as having a very positive impact on their experience, and 17.65 percent cited a somewhat positive impact.

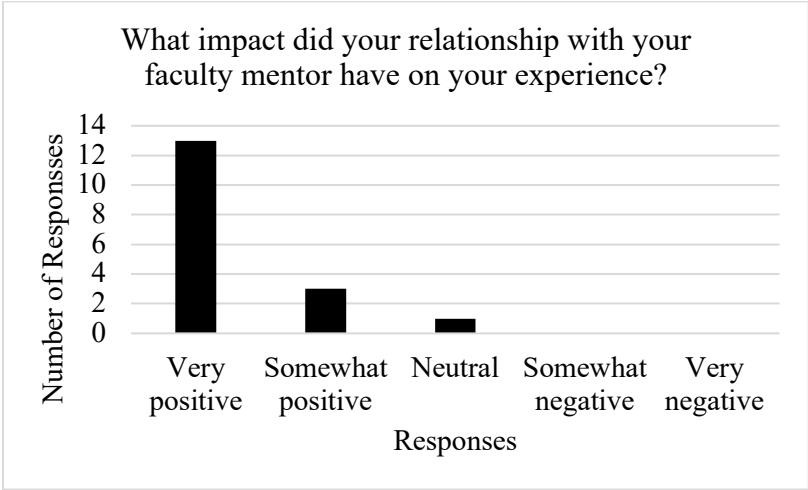**Figure 2: Relationship with Faculty Mentor**

Table 2: Relationship with Faculty Mentor

What impact did your relationship with your faculty mentor have on your experience?

Impact	Percentage	Count
Very positive	76.47%	13
Somewhat positive	17.65%	3
Neutral	5.88%	1
Somewhat negative	0.00%	0
Very negative	0.00%	0
Total	100%	17

The influence of the faculty mentor on the students' overall experience, skills developed, and overall enjoyment of the program is apparent in the multiple alums in the survey and the interviews that cited working one-on-one with a professor as the best or most impactful aspect of the program. The relationship with the faculty mentor is also tied to the impact of the research topic, as the student and faculty work closely together on the research topic. While 52.94 percent of

participants ranked the research topic as having a very positive effect on their experience, 29.41 percent stated a somewhat positive impact, while 17.65 percent reported a neutral impact. Alums therefore reported that the faculty relationship had a greater impact than the research topic. The significance of faculty–student mentorship relates to the previous literature that cites the benefits of the traditional apprenticeship model (Wei and Woodin, 2011). When asked about whether the alumni remained in contact with students or faculty after the program ended, many alumni reported that while they continued to stay in contact with their professors, they did not maintain connections with their fellow cohort members. Some alums cited the lack of contact with their cohort members to move away, COVID-19, or a lack of friendship outside of the program, while their faculty mentor continued to act as a mentor beyond the program and provided graduate school, professional, and life advice:

> My faculty mentor is one of my favorite people I met during undergrad and continued to be a mentor and friend to me after graduating. I have now been out of Emerging Scholars for 4 years, and he is still someone I meet with regularly to discuss life and work.

> Overall, our results suggest that while relationships with fellow students and faculty mentors impact undergraduates' overall experience, students' relationships with faculty mentors are ultimately the most important aspect of their experience.

Third, our study indicates that the community focus on the cohort model was impactful because it provided space for interdisciplinary study, opportunities for building professional development and skills, and emotional support. In this paper, we define the term community as a cohesive group of people with the common goals of academic enrichment, commitment to the overall purpose of the Emerging Scholars Program, and an overall feeling of trust and comfort within the group that fosters an environment of learning.

First, students cited the interdisciplinary nature of the program as being beneficial to their overall experience, as the program brought together students from different disciplines, invited faculty members from different disciplines to speak at student meetings, and occasionally paired mentors and mentees from different disciplines. Alumni indicated that the interdisciplinary aspect of the program was unique in that they had not experienced before their undergraduate years and contributed positively to their research as it introduced new research methods, perspectives, and ideas:

> The Emerging Scholars program allowed me to experience interdisciplinary work, which has helped tremendously in my future academic research and in my graduate work.

Next, the community focus created a structure in which students were able to develop skills and professional development beyond the faculty–student relationship (see results in Figure 5 below). Through monthly student meetings and

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events such as Orientation, the Mid-Year Event, and the Student Symposium, alums reported that they developed public speaking skills, enhanced communication with professors, and self-confidence. Starting with the first student meeting, scholars work on their public speaking skills through elevator pitches, impromptu speeches, and reports on their research.

Figure 3: Importance of Community Aspects
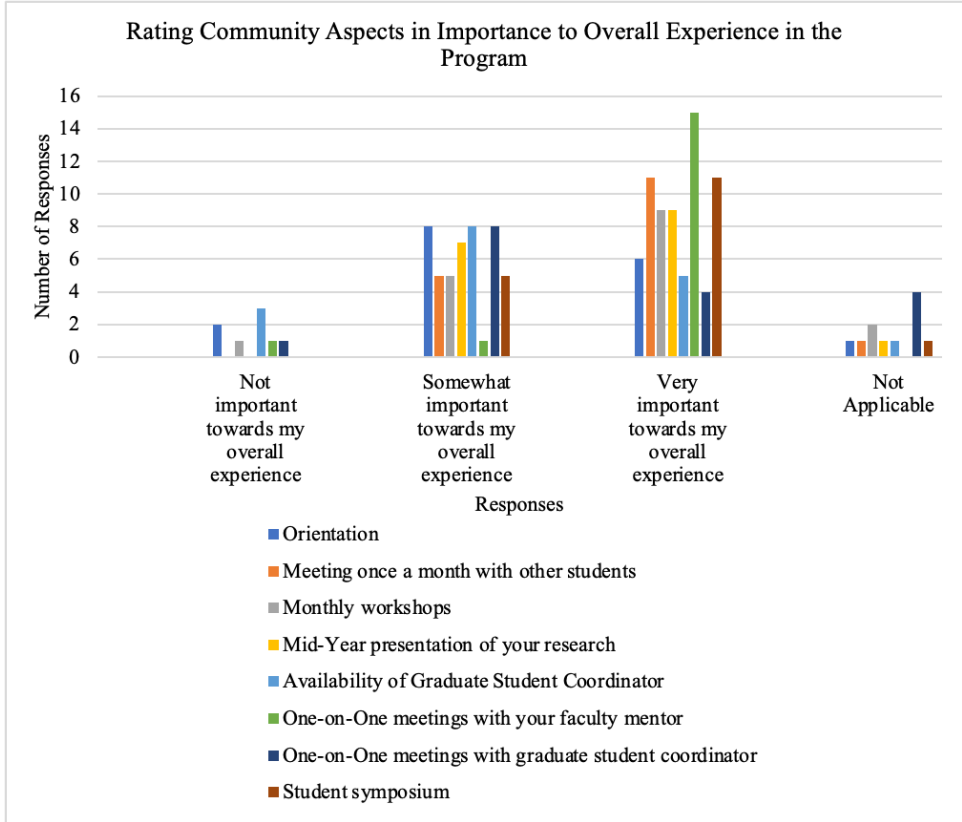
Many cited the great impact that this practice had on their ability to communicate their research effectively and efficiently, a skill that transferred to their professional lives beyond undergrad:

> The student symposium at the end of the year was exciting and enriching. I appreciated seeing how far my fellow peers had come with their own different, interesting research. I was proud of my own accomplishments and even surprised myself by winning a public speaking award. I believe that I did well at public speaking because of the practice that had come from the mid-year presentations.

Students also explained that the student meetings assisted them in being able to communicate effectively with their professors, as students discussed with each other the potential challenges associated with communicating with faculty and offered each other advice on how to break down the barriers of communication between students and faculty. The community of students proved to be especially effective here since the students were able to bond with their shared challenges of connecting with the professor, as they all had similar experience. Finally, the community focus impacts students by helping them build confidence in themselves, their abilities, their research skills, and their public speaking skills. The alums stated that they became more self-confident and self-assured due to the work completed in the student meetings, the opportunities to present their research in front of a community of scholars at the Mid-Year event and the Student Symposium, and the challenges that encouraged them to overcome and grow. Overall, the community focus of the cohort model generated structures in which students developed and enhanced skills and professional development beyond their research projects.

Finally, our study indicates that the community focus on the cohort model enhanced the student experience, as it provided a structure of emotional support. Alumni highlighted that being surrounded by a group of student scholars who were experiencing the same experiences, challenges, and triumphs fostered a sense of camaraderie, support, and validation:

> I felt like we had impactful conversations and a lot of camaraderie with the other students.
> I am still connected to the scholars in my cohort. I learned so much about presentation, research methods, and what I want to do in the real world.
> My faculty mentors were terrific and truly wonderful for both personal and professional guidance.

The opportunity in student meetings to share their experiences and to receive validation proved to be valuable, as students recognized that they were not alone in the process and instead could rely upon their cohort members for advice and support. Multiple students cited that their cohort members cheered them on through the Mid-Year Event Presentations and the Student Symposium and additionally were there to celebrate their successes, such as publishing a paper, presenting at a conference, or winning an award at the Student Symposium. Ultimately, the emotional support provided through the community emphasis and the cohort model generated significant benefits to the undergraduate students' experiences.

We were surprised by a few results from the interviews and the survey. For instance, while 41.18 percent of the survey participants indicated that the relationship with the Graduate Student Coordinator had a very positive impact on their experience and 47.06 percent indicated a somewhat positive relationship, only 6 percent of the participating alumni indicated that this relationship was one

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of the three most impactful aspects of the program. The Graduate Student Coordinator position is an integral part of the community emphasis and cohort model, as the coordinator facilitates student meetings, mentor-mentee pairings, and larger events such as Orientation and the Mid-Year Presentations. However, alumni did cite the Graduate Student Coordinator as integral to the overall workings of the program but seemed to work primarily behind the scenes.

> [The graduate student coordinator] was there making sure that we were all heard, paid attention to, in a way that it's an outside perspective of the faculty member, but then it's also a more experienced person who you could   defer to if you didn't feel comfortable.

Our interpretation of the findings is aligned with the overall literature on Social Learning Theory (Bandura & Walters, 1977). This framework can be applied to the Emerging Scholars Program to further analyze how undergraduate students in the program acquire research skills, knowledge, and certain behaviors through their interactions with faculty mentors and cohort peers. By emphasizing the role of observational learning, where individuals learn by observing the behaviors and actions of others, students in the program can observe their faculty mentors and cohort peers conducting research, engaging in scholarly activities, and interacting with other scholars. Furthermore, Social Learning Theory suggests that individuals can be motivated to engage in certain behaviors when they see others being rewarded or reinforced for those behaviors. In the context of the Emerging Scholars Program, students may witness their peers receiving positive feedback, recognition, or academic opportunities as a result of their research involvement. This vicarious reinforcement could then motivate other students to actively participate in research. Most importantly, this theoretical framework acknowledges the influence of the social environment on learning. Participation in the Emerging Scholars Program can foster a supportive and collaborative social context where students engage in research activities, share experiences, and seek guidance from mentors and peers. This social context fosters a learning environment where knowledge and skills are shared and developed collectively.

Overall, the results of our study suggest that while undergraduate experience in research is beneficial to students and that the faculty–student mentor relationship has a significant influence on students' overall experiences, an emphasis on the community through a cohort model greatly enhances students' overall experience. We find support that the emphasis on community through cohort models impacts students' experience in research by providing interdisciplinary opportunities, the ability to develop and enhance unique skills such as public speaking and confidence, and the emotional support necessary to flourish. A combination of aspects of the apprenticeship model—that is, a mentor-mentee relationship and research project—and a cohort model—such as a community of student and faculty scholars, community-building events, and

interdisciplinary focus—resulted in a significant enhancement of the overall experience, benefits, and skills gained from the experience.

CONCLUSION

Our study indicates that the most impactful aspect of the Emerging Scholars Program during alum's research journeys was the development of meaningful relationships between themselves, faculty mentors and other students. Even so, students reported that the relationship with their mentors was the paramount element of their journeys, with most students reporting that they keep in touch with their mentors even after having graduated several years ago. The structure of the program could also be responsible for this, as students are required to meet with their mentors every week, in contrast to seeing their cohort peers once a month. The topic of students' research was also impactful, with most students ranking this feature in the top 3 aspects of their overall experiences.

The community aspects built into the structure of the program were also influential in a variety of ways. Alums reported seeking the program because of the opportunity to be part of a larger community of scholars, as well as because of the interdisciplinary nature of the program. These features made it possible for students to improve skills such as public speaking, as, while they were nervous, the cheering of their peers contributed to creating an environment of learning. Second, students reported that communicating with professors as equals—given that the program is a partnership and not an assistantship—helped them break barriers in the relationship between themselves and the faculty.

Finally, the cohort model of the program gave students the opportunity to share experiences in and out of the classroom and develop shared solutions. Because all students, while in different majors, had the same experience, both the surveys and interviews demonstrated that alums had that as a safety net, which allowed them to aim more for their professional achievements while benefiting from the emotional support of their cohorts.

In terms of future research, we are considering expanding our study to survey and interview faculty mentors in the Emerging Scholars Program. Including the faculty voice in our project will deepen our analysis of the impact that cohort models, an interdisciplinary focus, and a community emphasis have on undergraduate student experience in research and on faculty involvement in such projects. Our project also lends itself well to a future comparative analysis between the Emerging Scholars Program and other programs on campuses that involve undergraduate students in research but that may not strongly emphasize community and cohort models. These other research programs are mostly STEM-based and therefore offer insights into the potential disciplinary differences between undergraduate research experiences.

Overall, our study contributes significant knowledge to the literature on undergraduate experience in research, experiential learning, and interdisciplinary study. By suggesting that the community built through the cohort model is crucial for the development of professional development skills and relationships between students and faculty, we offer insights into how universities can ensure that students have successful, meaningful, and impactful research experience beyond the classroom. Since ensuring academic success, professional skills, and overall positive student experience are some of the main goals of an undergraduate education, the results from our study are invaluable to universities and programs wishing to increase undergraduate student research experience. Although many universities and programs may not possess the resources to implement community research programs or cohort models, our study nevertheless suggests that cohort models and a community focus can be meaningful, as many of the benefits the students cite from the Emerging Scholars Program could not be possible without a focus on the community.

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