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Experiences of Arts and Humanities Students Engaging in Undergraduate Research

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Experiences of Arts and Humanities Students Engaging in Undergraduate Research

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Thesis Submitted to the College of Education and Human Services

At West Virginia University

in partial fulfillment of the requirements for the degree of

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Abstract

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Deemed an important pedagogical tool by the Boyer Commission Report more than 20 years ago, undergraduate research (UR) has been found to increase students' academic performance, retention, and pursuance of higher degrees. However, much of the existing literature on UR has focused primarily on student participation outcomes in Science, Technology, Engineering, and Mathematics (STEM) fields while disregarding those in other concentrations. The purpose of this study was to understand the experiences of arts and humanities students participating in UR by describing (1) their research activities, and (2) the meaning and value they assign to research. Two sets of interviews were conducted with various arts and humanities students participating in UR from a public, land-grant, research university. Emergent themes outlined participants' beliefs about the importance of passion and the development of novel ideas in research. Additionally, unintended outcomes were found that describe the impact of research-related (1) biases in the participants' fields, and (2) activities affected by the COVID-19 pandemic.

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Carinna F. Ferguson

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Introduction

The Boyer Commission Report (1998) defined research-based learning as one of ten approaches that can improve undergraduate education at research-based universities. Since its publication, UR has been recognized as an important pedagogical tool and has been implemented in much of undergraduate curricula. For example, in 2008, UR was deemed a high-impact practice, in that the activity provides significant benefits to students (Kuh, 2008). While undergraduate research initiatives are found at many research-based institutions, it is incumbent on the faculty and staff to decide on a program structure that can deliver the experience. As a result, student engagement with UR range from structured, course-based programs to informal, faculty-led approaches.

Much of the literature found discussed an outcome-based approach when assessing UR, specifically in studies about undergraduate research experiences (UREs; Adedokum et al., 2013, Russel et al., 2007), professional gains (Seymour et al., 2004), academic performance (Bowman & Holmes, 2018), and intention to pursue future research careers (Chemers et al., 2011; Kilgo, Sheets, & Pascarella, 2016). In a longitudinal study, Bowman & Holmes (2018) found that students that had engaged in a URE in their first year reported greater university satisfaction and higher fourth-year GPAs than their counterparts that did not participate in such research activities. Additionally, STEM students have been found to have a greater understanding of research, improved confidence as a researcher, and greater knowledge of the research process as a result of participation in UREs (Russel, Hancock, & McCullough, 2017; Chemers et al., 2011). For example, Zydney, et al. (2002) gathered information regarding alumni from an engineering program and found that respondents who participated in a URE reported enhanced cognitive and personal skills. In particular, Alumni were more likely to pursue graduate degrees when compared to their counterparts (Zydney et al., 2002).

Empirical Studies of Arts and Humanities Undergraduate Research

Despite the well-documented benefits of undergraduate research, much of the existing literature excludes outcomes for students in arts and humanities disciplines. Literature addressing the experiences of arts and humanities students engaged in UR is nearly absent. A literature search of journal publications through the corresponding University's library system using undergraduate research and humanities as keywords resulted in 198 studies. Of those, only two articles described solely students conducting research in arts and humanities disciplines. From this pool of studies, the literature suggests that arts and humanities students participating in UR experience positive outcomes including an increased ability to think like a scientist, approach issues analytically, and learn independently (Ishiyama, 2003; Dvorak & Hernandez-Ruiz, 2019).

In a study of a course based URE (CURE), $n = 30$ students in music therapy and music education were asked to rate their experiences in a pre-test post-test design to assess change in research skills, attitudes and behaviors, personal gains, and thinking like a scientist. Descriptive statistics and item-level analyses were conducted on the response sets to assess the impact of the CURE on students. Results indicated moderate gains in a students' ability to think and work like a scientist, confidence and patience in a research setting, and gains in research skills including writing scientifically, time management, and research dissemination (Dvorak & Hernandez-Ruiz, 2019). However, minimal change was found in students' reported attitudes and behaviors towards research.

Similarly, a study of the engagement of $n = 27$ social science and humanities students with a faculty mentor discovered significant gains in students' ability to think analytically, formulate novel ideas, and learn independently. The participants completed the College Student Experiences Questionnaire that was used to measure students' collaboration with faculty, ability to think analytically, capabilities of understanding complex issues, and ability to work

independently. Results indicated that humanities and social science students benefit from undergraduate research and pointed to the use of scientific methodology as a reason for the existence of a gap in the literature (Ishiyama, 2002).

While not entirely humanities and arts focused, a study by Craney, et al. (2011) of a 10-week summer URE assessed experiences of the undergraduate researchers from a range of disciplines. A pre- and post-survey design was used to examine change in students' research skills and assess overall gains as a result of participation. Researchers found that while there were many benefits to students from all disciplines including gains in skills, job experience, friendships, and resume building, students from humanities disciplines reported differences in perceived outcomes as a result of participation in the research experience. Results indicated that the URE had a more substantial effect on STEM students than humanities students in areas like the formulation of research questions, understanding realistic career opportunities, improving employability, opportunities to publish, and admissions to advanced degree programs. Reports of descriptive statistics outlined differences between humanities and STEM students' valuation of specific skills. The authors reported that 78% of science students reported valuing development of technical skills, while only 58% of humanities students valued this skill. In comparison, 54% of humanities students valued production of publications, while only 36% of their science counterparts valued this outcome. Additionally, humanities students more frequently reported initiating their own research projects and working independently than their STEM counterparts. The authors use these findings to suggest that UREs benefited students of all disciplines but illustrated the notion that STEM, and humanities students may experience them differently.

In addition to the designation of UR as a high impact practice, the experience has also been found to provide significant benefits to students' academic performance (Bowman &

Holmes, 2018) and future research engagement (Chemers et al, 2011). Despite these findings, very little empirical work has been done to understand the role of UR in fields outside of STEM. Given this lack of research, the current study was conducted to describe how arts and humanities students engage in and understand undergraduate research.

Method

Research Design

The study was designed to address two aspects of arts and humanities students engaged in UR: (1) descriptions of the activities undertaken during research and (2) personal definitions and conceptions of research. To gather relevant data, interview protocols were constructed to assess participants' relevant prior and current experiences with research (See Appendix A). The study was conducted from January to May 2020 with the latter implemented during the COVID-19 pandemic.

To first realize how students define and value their research, participants were asked to reflect on two aspects: the (1) specific qualities and skills of individuals they admired in their fields, and (2) personal qualities and skills as they relate to their research endeavors. Follow-up interviews were then conducted with students approximately three months afterward where participants were asked to describe both the research activities they engaged in over the last three months and changes implemented in their research. Furthermore, to assess how well the students define and value their research, students were to define the term research, provide an explanation of their definition, and to describe how they believed their research could be impactful on their field and the research community in general. Additionally, given that the follow-up interviews coincided with the COVID-19 pandemic which moved most academic programs, initiatives, and

on-campus research to an online format, participants were asked to describe the impact of transitioning from on- to off-campus environment on their research.

The purpose of this study was *not* to define undergraduate research for arts and humanities students but to explore participants' activities and engagement with research. The goal of this study was to understand the experiences of arts and humanities students participating in UR by describing their (1) research activities, and (2) definition and value of research activities.

Participants

A purposive sample of arts and humanities students was drawn from a population of URE students at a public, land-grant research University. Participants were considered if they were (a) conducting research in an arts or humanities-related field and (b) actively enrolled in the URE at the time of the study. Six of the seven students invited participated an initial round of interviews while four students participated in follow-up interviews. Demographic information for each respondent can be found in Table 1.

Table 1

Demographic information on student participants.

Student (pseudonyms)	Gender	Academic Year	Major	Research Topic Description
Alex	Female	Sophomore	Philosophy and Art History	Philosophy of Autobiography
Emma	Female	Sophomore	Music Performance	Comparison of Cross- Cultural Traditional Fife and Drum Techniques

Clara	Female	Sophomore	English and Multidisciplinary Studies	Italian American Representation in 19th Century Dime Novels
Taylor	Female	Junior	Anthropology	Perceptions of Cancer in Central Appalachian Regions
Jenna	Female	Senior	Anthropology	Marginalization and Representation in Anthropology Departments
Addison	Female	Junior	History	Historical African American Schools in WV

Data Collection

To understand the range of participant research engagement across an academic semester, interviews were conducted at the beginning and end of the Spring 2020 semester. Initial interviews occurred in late January in private, reserved rooms within the university library and occurred with an approximate 30-minute timeframe. Follow-up interviews were initially scheduled to occur in early April of the Spring 2020 semester after students participated in a university-wide research symposium. Due to the COVID-19 pandemic, the date of the symposium was delayed and moved to a virtual setting. This resulted in a delay of the initial interview schedule. Follow-up interviews occurred virtually via GoogleMeet during the last week of April. To ensure participant anonymity, identifying material including participant names and names of individuals discussed in interviews were replaced with pseudonyms in transcripts.

Analysis

Data analysis occurred in several phases. The initial phase consisted of reviewing transcripts of each interview alongside audio-recordings and analytic memos. Each interview was reviewed to consider each participant's experience. Notes were recorded for each interview outlining any major points of interest and highlighting any particularly descriptive portions of the transcript. From initial review, four initial lines of inquiry were identified that were both represented in the data and consistent with the focus of the study: research activities, self-descriptions, values and beliefs about research, and engagement with activities outside of research.

Following this, process codes and values codes were applied to the full corpus of data for each line of inquiry depending on the context of the data. To examine students' engagement with research activities, process codes were applied to each portion of the data in which participants outlined typical routines and activities. Primarily, process codes were applied to the *research activities* line of inquiry, however, in other portions of the data process codes were used if a routine or list of activities was described. The use of process codes allowed the researcher to examine specific details of participants' activities and routines (Saldaña, 2015). Process codes were then used to develop descriptions of the participants' day-to-day research activities. To address how students define and value their research, values codes were applied to all four lines of inquiry where participants described specific attitudes, beliefs, or values as they related to their research (Saldaña, 2015). Values coding was selected as the researcher was interested in determining participants' values in relation to their research and research field. Examples of each coding strategy, the purpose of using coding strategy, and themes are provided with examples from the data in Table 2.

Throughout the initial determination of lines of inquiry and the coding process two major themes emerged. Based on analysis, the researcher found that participants highly valued (1) the importance of passion when engaging in research and (2) the importance of forming novel ideas when engaging research. Emerging as an unintended third theme, all participants described the influence of discipline-specific biases on their research engagement, definitions, and values. These three major themes were exemplified in participant data.

Results

Engagement in Research Activities

All participants described their research as independent such that they primarily worked alone rather than in a group of researchers. This finding is consistent with prior findings that suggest arts and humanities students often work independently (Craney et al., 2011; Ishiyama, 2002). While participants conducted independent research in a range of fields at the time of the study, all participants described engaging in activities that included reading, writing summaries, and conducting searches using online resources. Alex described her work in Philosophy to include reading and writing summaries while being guided by her mentor:

I would say primarily it's reading and summarizing. Whether that's, "Look at these different publishing houses and summarize everything they want." Or, "Here's The Philosopher's Eye. Please read this, summarize this." And then when [my mentor and I] meet up, we have a discussion about it.

She explained that her mentor often assigned tasks that required searching for and reviewing new information. She then engaged in dialog with her mentor about the information she had found. Although engaging in research in English, not Philosophy, Clara described a

similar approach to her research. She described searching for information, preparing summaries, and preparing for discussion with her mentor:

I have to access the database. And I have to narrow down the time period that I'm working on. . . we'll look up keywords like Italian and other words that are used to describe Italians. . . then, if I were to find [a novel], I have to read the entire thing, take notes for each chapter, obviously intense citations, things like that that my mentor can reference when she goes back to read. And then I just provide a brief summary of my findings of the implications of it, the cultural implications of it.

Similarly, Emma described following a similar process when describing how she engages in music performance research. She described this process as follows:

So, a lot of it's just like me sitting down, listening to recordings of professional groups playing, trying to make sure that I'm emulating. Watching videos of experts like with-- so that I'm playing with the right technique.

While she did not report reading books or articles as Alex and Clara did, Emma outlined the same process of searching for, listening and taking in, and engaging with published work in her field. Despite variation in discipline, participants reflected on this process of searching for and engaging with existing research in their fields.

Research independence. Past studies have found that students in arts and humanities-related disciplines often report forming research questions distinct from their mentors (Craney et al., 2011). The current findings suggest that while students engage in their research independently, not all students developed their own unique research questions. Unlike prior research findings, only one of the six students interviewed reported engaging in research unrelated to their mentor's research. Jenna described her research as independent. When asked to define how her work was independent, Jenna described independence from her mentor:

Table 2

Examples of Process and Values Codes.

Description	Coding Strategy Used	Purpose	Codes Applied to Data	Participant Data	Emergent Themes Represented
Research-Related Activities	Process Codes	Examine specific, detailed activities and routines	<p>7. describing steps if Italian American character is found</p> <p>8. Reading the entire novel</p> <p>9. Taking notes for each chapter</p> <p>10. Writing intense citations</p> <p>11. Providing a summary to mentor</p> <p>12. Writing cultural implications of novel</p>	<p>7 And then, if I were to find one, 8 I have to read the entire thing, 9 take notes for each chapter, obviously 10 intense citations, things like that that my mentor can reference when she goes back to read. 11 And then I just provide a brief summary of my findings of the implications of it, 12 the cultural implications of it.</p>	Research Activities
Participant Definition and Value of Research	Values Codes	Understand specific values (v), beliefs (b), and attitudes (a) held by participants	<p>19V: You must have passion for research</p> <p>20B: Without passion, research is bland</p> <p>21A: If you're motivated you will pursue research further</p> <p>22B: Passion is an important quality for researchers</p>	<p>I think 19 you have to have passion for it. And if you're not passionate about it, I feel like your 20 research is going to look bland. But I feel like if you're interested in it, 21 then you're going to want to pursue every avenue and every nook and cranny. 22 I feel like that makes people good researchers.</p>	Importance of Passion

Yeah, my advisor doesn't look at the data. They'll have access to the data that I'm collecting because where they're a professor within the department, it could come back on them or something. So, it's just all my stuff and what I'm finding. And I'm presenting [my mentor] with what I want to bring to the research.

She explained that she developed her own research topic, wrote her own interview questions, and conducted her own interviews.

Of all the participants, only Jenna described developing their own unique research questions entirely independent of her mentor. The other participants reported conducting research guided by their mentors. While none of the students described a scenario in which they worked with their mentor daily, five of the participants explained that they frequently check in with their mentor, as expressed by Clara and Alex above. This finding may suggest that arts and humanities students work more closely with their mentors than initially thought and less frequently develop research questions entirely independent of their mentor.

Impact of COVID-19 Pandemic on Research Activities

Given that follow-up interviews occurred during the COVID-19 Pandemic, the four participants that participated were asked to describe how their research and presentation of research at the virtual symposium was impacted. Three participants reported minimal change to their research as a result of the COVID-19 Pandemic. When asked to describe how her research was impacted, Clara explained that she made minimal adjustment to her research activities, however, she did describe difficulties with internet connection and access to a laptop. Despite difficulties, Clara described that the independent nature of her work allowed her to continue researching. She explained:

My research is very compatible to do anywhere, anytime as long as I have access to the database and my spreadsheets. So as long as I have an internet connection and a computer, I can do it anywhere, so.

Alex and Emma expressed the same sentiment. Emma specifically explained that her research was one of the only aspects of her academic endeavors that remained the same. She explained:

That was probably the one thing that stayed consistent because most of my research I did it independently anyway. And it was when I had time at home to get on my computer and read stuff. . . And I definitely don't take that for granted because I know that there were so many people who's research was just amended because they didn't have access to the spaces they needed to. So fortunately, in that aspect, my research was the one thing that was able to stay the same, so I was very grateful for that.

Taylor was the only participant that described a negative experience with the transition from offline to online research. She described having difficulty with her mentor early in the transition. She explained her experience:

When we moved to—my mentor, when we moved to online, she was like, “I really can't focus on research by now,” because she had so much going on and I had so much going on. So we just kind of did—I did one or two interviews over Zoom. But our research really started to minimize, and then just transcribing and stuff.

Impact of COVID-19 on research dissemination. Beyond engaging in research activities online, participants also reflected on presenting their work at the virtual research symposium. All four participants that participated in follow-up interviews reported a negative experience with the process of transitioning their research presentations to an online format. Alex described having the most difficulty with uploading her research talk. She described difficulty with attaching audio

files, the main component to her presentation. Instead she described what she was able to present:

It was four slides of a Powerpoint, [they] couldn't have access to the audio component. So it's not like people were interacting with my research. I didn't even bother showing it to my mentor.

While Alex had the most difficulty, Taylor also described how the virtual setting and technical difficulties negatively impacted her presentation. She described a situation in which her audio files were cut short:

And so that just felt really unprofessional. And I was kind of really discouraged about it. And I just felt like that all the work that I had put into it was kind of for nothing, which was kind of discouraging.

Overall, participants reflected on the technical challenges of presenting research online in a virtual format.

Passion as a Driving Force in Research

A discussion of the importance of passion in research was found in all but one interview conducted. Participants described this sentiment in several contexts including descriptions of themselves, of others, and within their disciplines broadly. When asked to describe themselves, several participants identified themselves as passionate, driven, or having a deep interest in their research. While not directly describing herself as passionate, Taylor described herself as “very enthusiastic” about her research. She later reflected on the importance of passion in her change in major, explaining that she chose anthropology because she loved it. She explained this change in major:

One thing that I've always felt gets you far in a field is just enjoying what you're doing or wanting to do it. I didn't start in anthropology. I switched into it. And I literally switched into it just because I loved it.

She then reflected on her peers choosing disciplines without prioritizing their personal interests and passions. She explained the importance of passion again in this instance:

I get that, loving something doesn't pay bills when you're older. But . . . you can't just do something to make the money, you need to actually be good at it and you're going to be better at it if you enjoy what you're doing because then you're going to put more effort into it."

Other students reflected the same belief regarding the importance of passion influencing individuals to "put more effort" into their research. When asked to reflect on specific qualities that make individuals 'good' researchers, Alex described the need for passion when conducting research in her field. She explained:

I think you have to have passion for [your research]. And if you're not passionate about it, I feel like your research is going to look bland. But I feel like if you're interested in it, then you're going to want to pursue every avenue and every nook and cranny. I feel like that makes people good researchers.

Emma reflected on this same idea when describing two researchers she looked up to in her department. When describing these two researchers, she explained that they had traveled to many places and had acquired large amounts of subject knowledge. When asked if there were any specific skills or qualities that made these researchers so successful, she reflected on the researchers' personal drives for engaging in their work, stating that:

I don't know if it's a skill but just having a passion for it or having the motivation and the dedication to go and seek out those answers for yourself. . . So I just think they're just

really motivated. I just feel like they have so much drive and so much energy and devotion to what they want to learn. I think that's the most important thing for anything, it's just like to care about it.

When considering what qualities are required to be a successful researcher in history, Addison expressed her admiration for a graduate student she had worked with in the past. She felt that the graduate student's determination made her admirable. She described the graduate student as:

Just very determined. Like I said, she's willing to do anything. And she's happy to do it. She's excited to do it, curious. She seems like she really wants to go forth in this specific topic that we're doing.

Addison suggests, like Emma, that the graduate student's determination and desire to engage in their topic is what makes them successful. Jenna expressed this same idea when reflecting on her own mentor. She expressed that her mentor's personal motivation to pursue research allowed her to view research in a new way, explaining that:

I think it's just made me look at research completely differently, as in . . . anybody can do research, but you have to be motivated, I feel like. And they're motivated to do research, and they care about those that they're researching. I think that's a big thing, too. It's like they care about what they're researching, which makes them want to conduct it better.

Participants reflected on the importance of passion for engaging in research, be it through describing themselves, others, or within their discipline broadly. They described passion in themselves as they engaged in their own work as Taylor did. They outline how they saw passion in individuals their fields, as Alex and Emma did. They also expressed how passion in others allows them to see how they can engage in their own work as Jenna expressed. While not explicitly expressed in each interview, it is clear that the importance of passion was strongly held value for students as they engaged in and made meaning of their research.

Importance of Forming Original Ideas

Of the six students interviewed, five of the students described the importance of forming new and original ideas in their research. Participants reflected on this in several ways, noting the importance of balancing existing research with formation of new ideas and the importance of making contributions to their field. Most notable was Clara in her description of the importance of forming new and original ideas in humanities disciplines. Clara described one of her first engagements with her mentor in which she expressed interest in several research topics. Clara reflected on the experience, explaining her mentor's response. She explained that while her initial research ideas were interesting, that many of the ideas had been studied before. Clara continued to explain that her mentor's desire to engage in novel work is what makes her a successful researcher, stating:

I think she's a successful researcher because she is thinking outside the box. She wants to do stuff that's never been done before and I think that in humanities research that's especially important.

Alex reflected this same notion when describing her own work. She expressed the importance of developing new ideas and questioning existing opinions. She noted:

I guess when it comes to philosophy-- philosophy, it really emphasizes you paving your own path and coming up with objections, really doing a lot of research. "Oh, do I agree with this? Why don't I agree with this?" and really a lot of creative thinking. And I think that bleeds into every aspect of life.

Emma described a process similar to Alex's such that her field required her to develop new ideas, but only after considering past research. She described the process of engaging in the formation of new ideas as a musician, explaining:

As an artist and as a musician, you're supposed to take whatever you're playing and make it your own, still. So there's this balance between, "I'm reading and doing what I can to make it sound just like the people before me but adding my own twist." And I guess the whole part of my research project is how can I take these things if that somebody's already laid out for me but may them my own.

Both Alex and Emma reflect on the importance of considering existing research and reflect on their ability to balance existing work with the formation of their own ideas. Like Clara, however, both note the importance of making their research their own. Participants described how they value the creation of new research, but also noted the importance of referencing existing research. This finding is supported by past studies that found arts and humanities students value the creation of novel ideas (Ishiyama, 2002).

Impact of Biases on Arts and Humanities Undergraduate Research

The first two themes that emerged within the data outline what participants value within their research. While not initially a focus of the study, all participants reflected on their experiences engaging in research in comparison to individuals engaging in STEM research. Participants discussed this issue both as a personal bias and as an institutional issue, each of which impacted how they engaged in and understood their own research. For this reason, including this subtheme was necessary to accurately describe the experiences of arts and humanities undergraduate researchers.

Impacting how she approached her research; Emma described the ways in which her experiences as a musician in high school shaped her initial opinions of research in her field. She explained that in high school she participated in an advanced placement music theory class. A parent at her high school felt that Emma and other students in the class should not receive honors

credit because it was unfair to other students that did not practice music. She described the experience:

There was this incident where there was an AP music theory class and people were trying to get the honors credit and AP credit taken off of it because they said it wasn't a real class because it's music theory, even though it's acknowledged and given and passed by the college board.

She explained that her school's Board of Education had to be involved to resolve the issue. She reflected on how this experience changed her views on her field:

So I have that stigma. A lot of people think that music isn't relevant and can't be academic. And so it's just kind of living with that.

Emma then reflected on her experience engaging in research in college. She explained that through engaging in research, watching others engage in research, and participating in her research herself, she has started to feel less of the stigma associated with her field:

I don't feel so insignificant anymore. I guess especially going through last semester and this semester.

While Emma was the only student that reflected on specific experiences in her past impacting the way she engaged in her work, several other participants described navigating the same stigma that Emma described. Taylor explained her view on the stigma against arts and humanities research, noting that:

There's definitely this stigma of like a lot of people consider it not research if it's not coming from biology or chemistry or physics or things like that.

The idea that Taylor described, that research is not considered research unless it is research in a STEM field, was pervasive across participants' interviews. Many participants reflected they did not know that research even occurred in humanities disciplines. When considering why fewer

people engage in arts of humanities-related research, Addison explained that before she found her research position, she did not know research opportunities existed:

I didn't even know there were research opportunities for me, for humanities majors at all.

So, I think it's just maybe it's prior biases that we can't do research.

When asked to explain why she felt she held the bias that someone in humanities could not engage in research, Addison referenced her experience at her university:

I just feel here at [my university] -- I mean, that's my only experience, it's the only college I've been to. Math and engineering and STEM, I think, rule. I don't mean to be mean or anything, but I feel like they have priority, and they are the overarching fields at [the university], so, yeah. Yeah. So it's they're there, and they're way higher than us.

Alex also reflected on the same sentiment that while undergraduate research in humanities and arts disciplines may be happening, there may also be the perception of institutional bias. Like Addison, Alex explained that she felt that research is more of an obvious requirement for students in STEM disciplines:

I feel like research is kind of a given for STEM. People are like, "Oh, of course, I can research and stuff." But I don't think a lot of people don't realize research opportunities that are there within the humanities.

Alex continued to describe the building in which many humanities disciplines are housed and made the note that many students from these disciplines aren't aware of the opportunities to engage in research:

I like to call Arnold hall the hall of reject majors. I say that lovingly. But especially with us, it's like people who study Native American studies, Women and Gender studies, Philosophy, Religious studies, a lot of us, I don't think, realize that research opportunities are there.

These findings suggest that while students are navigating engaging in research, they are also navigating personal and perceived institutional-level biases against their work. While a student is engaging in research that they are passionate about and generating original research ideas, these participants are considering how others perceive their research. Understanding how these students conceptualize their research in relation to their beliefs about the value of arts and humanities research is essential in understanding their experiences.

Discussion

Previous studies have found that arts and humanities students benefit from participation in undergraduate research in specific ways, including an increased ability to think like a scientist (Dvorak & Hernandez-Ruiz, 2019) and increased ability to formulate novel ideas (Ishiyama, 2002). While none of the participants in the current study described themselves as a ‘scientist’ as Dvorak & Hernandez-Ruiz (2019) found, this study corroborates the finding that arts and humanities students do develop an ability to engage with subject matter as appropriate in their disciplines. Students engaged in their work as self-described archival scholars, writers, musicians, and researchers. Participants also reflected on the formulation of novel ideas as one of the most important aspects of humanities research, as Ishiyama (2002) found in his study of arts and humanities students. Furthermore, participants described their research as requiring “independent,” “using my interpretations,” and “formation of my own ideas” which is supported by the findings of Craney et al (2011) that arts and humanities students more frequently engage in independent research. Interestingly, four of the six participants noted that their research was guided by their faculty mentor’s work, suggesting that while students may be forming their own ideas, they were not yet initiating their own research projects as Craney et al (2011) found.

Results from the current study corroborate findings of past studies on arts and humanities students engaging in undergraduate research. The findings of the current study suggest that students engaging in this research have complex understandings of their fields. Not only did students express the importance of engaging with their field and contributing new ideas, but they also wrestled with personal and institutional-level biases. By seeking to understand how students engage, find meaning, and value research, rather than only the benefits of participation, the current study described the experiences of six arts and humanities undergraduate researchers. Understanding the experiences of these students may help inform further research on UR in which students from arts and humanities are included.

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Appendix A

Initial Interview Protocol

I want to start by learning a little bit about you and your research. To begin, can you tell me your major and a little bit about the research you're working on?

Prompt: Field they're conducting research in

Prompt: If needed to learn research project focus

In general, what words would you use to describe yourself? For example, you might say you're an artist, a literary scholar, or something along those lines.

Prompt: Are there any other words you might use to describe yourself?

And just I make sure I'm understanding what you're working on day-to-day - What types of work do you engage in through your research? X Y Z (archival, reading, photo analysis, etc)

Prompt for each type of work described:

Can you tell me more about that?

What does that type of work look like?

What activities usually go along with doing X, Y, or Z?

Outside of the university, your course work, or a school setting how would you describe yourself?

(musician, artist, etc)

Great, thanks! I'm wondering now what experiences you have had with research in the past? Can you remember the first time you were working on research?

Prompt: When did this research happen? (college, high school, extra-curricular)

Prompt: What was this research like? Was it similar to the research you do now or

different? Make note of yes or no - adjust below questions to make sure conversation follows appropriately

Can you describe to me what that research looked like? What sorts of things did you do day-to-day? What activities usually went along with that research? Can you describe the work for me?

That's interesting - so you worked on X during [high school, college] - Now you're doing research in RAP. I know you said you usually work on XYZ - Can you think of any other times in your life outside of RAP that you have worked on (learned about, engaged in) things like X Y or Z? What were those experiences like?

I am wondering now if you can think of any researchers in your field that are top researchers? What sorts of research do they do?

-Assuming here they might talk about their RAP Mentor or secondary mentor-
What do they do?

What sorts of things do they do that make them a great researcher?

Prompt: Is there a skill or specific quality that you think helps make this person a great researcher? For you, what makes them a great researcher?

Sort of along the same lines, can you think of a peer in your major or doing research that you look up to?

What do they do?

What sorts of things do they do that make them great?

In your opinion, what makes them great at what they do?

Switching back a bit to RAP, would you mind sharing with me a little bit about how you got involved with RAP? How did you hear about RAP? What made you decide you wanted to do RAP?

Excellent - thanks for sharing that. Would you be willing to reflect back on your experiences in RAP 1 for a moment?

Overall, how was your experience in RAP 1 class?

Can you think back to the assignments in RAP 1? Were there any assignments you can remember that were particularly helpful?

Were there any that seemed not helpful?

As you know, we allow students from all majors to do RAP. Can you tell me a little bit about experience in RAP classes as an XZY major?

responsive to the student

Do you have any ideas of ways we could modify the program to help students like you in the future?

Follow-Up Interview Protocol

Can you tell me about the research you've worked on during the second semester of RAP? Was this similar or different from the research you did in the first semester?

Walk me through what your day-to-day activities consist of in this second semester.

Prompt: Did you learn any new methods, theories, or ideas? Did you develop any new skills during this semester?

During this semester or last, did you engage in any activities or experiences that influenced the way you worked on your research in general?

How would you define research?

Prompt: In general?

Prompt: In your field?

At what point can someone be considered a researcher in your field?

What words might you use to describe yourself when thinking about your research and academic work?

Prompt: Are there any nouns you would use?

In what ways can you see your research findings impacting your research field? The research community? The community as a whole?

Have you developed any interest in individuals within your field that you admire? If so, who?

Why do you consider this person admirable or a good researcher?

Prompt: How would you define passion?

Tell me about your experiences preparing for the Spring Symposium.

Prompt: Did you take any new approaches in your work to prepare for the symposium?

Prompt: Did you learn anything new when preparing for the symposium?

Tell me about your experiences "presenting" at the symposium. How do you feel it went?

Did presenting your research alter how you saw your work?

Tell me about your experiences “attending” the symposium.

[Reviewing RAP 1 and RAP 2 Syllabi] Reading over the syllabi for RAP 1 and RAP 2, what can you tell me about the class that you would modify or keep?

COVID-19 Specific: What did you struggle with due to the transpiring circumstances?

COVID-19 Specific: What did you succeed with?

Did COVID-19 affect the way you were conducting your research?

Did you have to alter your research due to COVID-19?

Would you recommend RAP to someone in your discipline? Warn?

Is there anything else you feel is important to discuss as it relates to your experience with research or your experience in your major?