University Network System:

A Usability Study

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Submitted to the Graduate Faculty of the
School of Education in partial fulfillment
of the requirements for the degree of
Doctor of Education

University of Pittsburgh

UNIVERSITY OF PITTSBURGH

SCHOOL OF EDUCATION

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August 14, 2020

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University of Pittsburgh, 2020

Higher Education Career Services Offices are often called upon to serve more students than they are able to provide with meaningful, individualized job search support. Engaging alumni mentors to provide job search support to students is one way that career services offices have sought to increase the amount and quality of assistance students receive. Increasingly, institutions are utilizing online mentoring platforms to connect students and alumni mentors. A large, mid-Atlantic university recently began to develop its own online mentoring platform, which is scheduled to be launched to School of Education students in the fall 2020 term. This study evaluated that system to determine which features need to be improved prior to the launch. It was found that the system needs distinguishing characteristics, such as access to alumni, direct job search support, and increased job postings. Students will need to be oriented to the site and told how to navigate it. The system also needs to be promoted as a tool for job search support so that students use it as such and immediately understand why the site exists and how the site is to be used. Additionally, feedback must be given to platform administrators so that they can address system glitches and ensure that the site is appropriately populated with alumni who are available

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to assist students.

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1.0 Problem of Practice

Among all the services that a university provides to students, one that stands out as critical is offering career advisement as students approach graduation. As important as career advisement is, many universities are under-staffed and cannot offer intensive career advisement to students.

As the Director of Career Services in the School of Education at Mid-Atlantic University (pseudonym), my overarching *problem of practice* is determining ways to provide critical career services to students when their direct contact with staff is limited and constrained due to staffing.

Most institutions, including my current institution, provide students with career services and support but the services offered can be cursory or limited in scope. In fact, according to the National Association of Colleges and Employers' (2019) most recent Career Services Benchmarking Survey, the ratio of collegiate career services professionals to students in the United States is 1:1,800 (NACE, 2019). The NACE Survey (2019) results also indicate that the amount of time that career professionals are able to dedicate to student-facing tasks, such as job search support and resume review, is only 55% of their working hours. In the School of Education at Mid-Atlantic University, our ratio is 1 career services professional to 700 students. Although our student loads are less than the national average, it is not possible for our limited staff to provide the support needed to assist our students as they contemplate and navigate the job market, reflect on their educational investments, and make decisions critical to their careers.

Professional standards for career professionals are clear and college students report needing assistance with their job searches but the Office of Career and Student Services in the School of Education at Mid-Atlantic University is not well-staffed enough to help them individually. Therefore, I need to find ways to leverage the participation of alumni in order to provide job search

support and early career mentoring for School of Education students. This job search support will allow my office to address better the needs of students during the school-to-work transition and will allow the office to align better with the National Association of Colleges and Employers (NACE) standards for College and University Career Services offices. These standards require meeting the needs of students in the areas of:

- developing and implementing employment decisions and plans,
- developing self-knowledge related to competencies and work values,
- developing knowledge of the world of work and employment options,
- developing job search competency, and
- understanding the connection between competency and opportunities (NACE, 2014).

In the context of my work as Director of Career Services, I am attempting to address this problem of practice by investigating the use of a new platform called University Network System (pseudonym, UNS). Before fully implementing this platform, I need to find out if the purpose, clarity, and usability of its features are effective in supporting the engagement of School of Education graduate students when seeking career advisement. The only way of knowing is to investigate students' reactions and opinions to the use of the platform.

An important feature of the platform is engaging alumni. Alumni who have secured positions and understand the expectations of the world of work in which graduates will eventually find themselves are well positioned to offer advice and guidance as soon-to-graduate students begin their job searches. In recent years, alumni networking and mentoring platforms have emerged and offer possible solutions to the career services staffing issues faced by colleges and universities. One such provider of services, People Grove, recently contracted with Mid-Atlantic

University to create the UNS, the University's alumni and current student networking and mentoring site. Although literature on the use of mentoring and networking platforms as supplements to career services offices is limited, mentoring has long been used as a tool by which one gains support for career-related decision making and development.

Additionally, career services offices often engage alumni to support current students and, with varying success, launch more traditional mentoring programs in efforts to enhance services to students. The use of a platform designed specifically for connecting higher education students with alumni is promising and may allow my office to provide additional services, such as job search and interview support, for current students to scale. For this reason, careful examination of the UNS before full implementation in fall 2020 is required to determine its usefulness as a tool for meeting the needs of our students.

1.1 Context

I currently serve as the Director of Student and Career Services in Mid-Atlantic University School of Education's Student Engagement Center. It is my responsibility to consider how the adoption of a University-wide career service initiative will affect my area in the School. Once I understand the initiative presented to us, I must determine how to respond accordingly by adopting all, some, or none of the features of this initiative. Over the course of the past year, the University has introduced a number of new technology systems designed to advance support for the institution's students. For my problem of practice and study (explained below), I have chosen to focus on the UNS because I have seen how effective mentoring platforms can be as tools to engage and assist current students. the UNS also has the potential to solve a pressing issue in my office.

The University purchases and develops platforms but it is often left to the individual schools within the university to investigate these tools and make suggestions for improvement. As such, the School of Education has some ability to control the degree to which it utilizes the new platforms and the ways in which those platforms are promoted to its students. We also have the ability to provide feedback to the central offices supporting platforms in order to make suggestions for improvement. With so many new platforms launching, my office must work to evaluate the platforms for functionality and value-added to students and make decisions regarding the implementation of the systems. Given the potential of the UNS, we need to understand thoroughly the features of the platform prior to its full launch in the fall.

We must tailor our communication and support to students in order to facilitate successful use of the platform. Taking care as systems are made available to us will allow us to make the best possible impact with the least amount of unnecessary complexity as possible. It is important that we consider how to use the features of these systems (e.g. career support, student/alumni matching, how-to guides, job postings) to our advantage and that we minimize confusion and redundancy as we plan the School's technological path forward.

The UNS is an online mentoring and networking site for alumni and current students. The platform has the potential to allow the School of Education's Career Services team to leverage alumni in order to provide much-needed job search support to current School of Education students and to meet the needs of a greater number of students than what a small team of career service professionals can offer. Although the system has promise, Mid-Atlantic University launches many new systems each year with varying degrees of success and prior vetting. Because of this, it is important for school-based personnel to carefully evaluate new platforms for functionality and end-user experience prior to launching them at the school-level.

Before the fall 2020 full launch of the UNS platform, I want to understand how the system works, which of its optional features we should use or opt out of, and whether students navigating the school-to-work transition find it to be useful. To ensure success of this platform requires investigating students' reactions to the platform, their understanding of its purpose, and functionality of its features. To address my problem of practice – increasing career service opportunities to students through technology and alumni involvement -- I plan to conduct a user-based evaluation of the UNS system before it is fully implemented in fall 2020.

In order to evaluate the potential of this site, I reviewed professional literature related to alumni engagement and mentoring relationships and the value of those relationships as sources of supplemental career services. I also reviewed the emergence and characteristics of online mentoring. Finally, I reviewed the standards by which one can gauge the usability of an online site, focusing on platform design and user experience design.

2.0 Literature Review

This literature review answers the following questions:

- 1. What is the role of alumni engagement in career services, particularly regarding mentoring through the school-to-work transition?
- 2. What characterizes a strong mentoring relationship?
- 3. What is electronic mentoring?
- 4. What are the platform design characteristics of mentoring platforms that make the platforms more or less usable?

2.1 Alumni Engagement

According to the National Association of Colleges and Employers' (2019) most recent Career Services Benchmarking Survey, the ratio of collegiate career services professionals to students in the United States is 1:1,800 (NACE, 2019). The NACE Survey (2019) results also indicate that the amount of time that career professionals are able to dedicate to student-facing tasks, such as job search support and resume review, is only 55% of their working hours. In addition, annual survey data shows that students increasingly consider alumni to be effective sources of job search support (NACE, 2016a) and that 85% of students who used alumni as a job search resource found the alumni to be very or extremely effective (NACE, 2016b).

To help meet students' needs, strong career services offices frequently engage alumni in their efforts. Sanghvi and Kubu (2017) describe the process of building systemic contact between

students and alumni as part of career services offerings, including using an online platform as a key component. A NACE (2018) report on the expansion of career services at the University of Richmond, focuses entirely on heavily integrating alumni into career services process. The University combined the career services and alumni engagement offices to ensure that alumni are central to the career related support received by students (NACE, 2018). Engagement with alumni is mentioned in 15 of the NACE Professional Standards for College and University Career Services (NACE, 2014), which suggests that career centers develop and maintain relationships with alumni, help students connect to alumni, draw upon alumni experience and expertise, and utilize alumni to build funding streams (NACE, 2014).

2.1.1 Cultivating Relationships and Pathways to Giving

The NACE Standards recognize the role that Career Services Offices play in building and maintaining the reputation of the institution to alumni. The standards direct career services professionals to include alumni as a constituency group, to treat them with professionalism, positivity and a welcoming air, and to share student outcome data with them (NACE, 2014).

This behavior toward alumni helps career services professionals to handle their work loads and fulfill their obligations to students but it also serves other important functions. In his book chapter on engaging alumni through social media, Kowalik (2011) makes clear that the financial health and growth of an institution depend on its ability to effectively involve alumni as necessary participants in the institution's community. Kowalik (2011) argues that providing alumni with pathways for engagement will lead to alumni giving. This is supported by the findings of Wang and Graddy (2008), who found that volunteering activity was positively associated with financial giving, and Brown and Ferris (2007), who found that the networks with which individuals

associate themselves and their trust in the communities in which they participate impact charitable giving.

Most charitable giving to education institutions comes from non-alumni institutional supporters and wealthy, older alumni (Greeley, 2013), which is the population on which advancement professionals typically focus their efforts. Those efforts tend to neglect early career alumni and current students, who are still establishing their relationships and affiliation to the institution, and whose current level of affiliation might impact future giving, at a point when it is more financially feasible for them to do contribute monetarily (Greeley, 2013). This means that offices that successfully facilitate positive alumni engagement with students are contributing to the organizational life cycle on multiple fronts. They offer even young alumni opportunities to strengthen their affiliation with the institution through volunteering, engender trust from alumni and students who can see that the institution is serious about stewardship and leveraging resources in ways that keep costs down while fulfilling an obligation to students to see them through the school to work transition.

2.2 Mentoring Relationships

The field of mentoring is vast and includes formal and informal relationships. In formal mentoring programs, there is structure, someone providing mentee/mentor matching and oversight, and the program aligns to specific institutional goals (Safer, 2017). Informal mentoring relationships take place outside of formal programs, when someone takes advice and asks for suggestions or guidance from another person in their workplace, filed, or other setting (Safer, 2017). Eby, Allen, Evans, Ng, & DuBois (2008) identified three major areas of mentoring: youth,

academic, and workplace mentoring. In these broad categories, mentoring might be centered on, among other things, children and adolescents, school-based programs, peer mentoring, workplace mentoring, and professional mentoring. These relationships could be focused around specific skill sets, professional standards, career ladder steps, and developmental and time-of-life issues.

For the purposes of this literature review, mentoring relationships are those in which more experienced professionals (mentors) provide guidance and support related to the career and psychosocial needs to less experienced individuals (mentees) who participate in the relationship (Kanmeyer-Mueller & Judge, 2007). These relationships can serve as the catalyst for personal development and upward mobility for mentees (Poulsen, 2006).

In college settings, mentors can provide students with important support leading up to the school-to-work transition and can increase the engagement of online students who are traditionally underserved (Higher Education Coordinating Commission, 2017). Renn, Steinbauer, Taylor, and Detwiler (2014) found that students who received mentoring in the months leading up to graduation were more engaged in career planning, had a greater sense of career self-efficacy, and were more committed to their job search intentions. Mentees in this study also had fewer self-defeating job search behaviors than students who did not participate in the mentoring program (Renn, et al., 2014). In another study, conducted by Lacy and Copeland (2013), graduate professional students were found to have a better understanding of workplace expectations, the day-to-day working life of professionals in their field, and the skills necessary for the job search after participating in a mentorship program with working professionals.

2.2.1 Types of Mentoring

The mentoring relationship can take many forms, including formal, informal, face to face, online, long-term, or short-term (Pfund, Byars-Winston, Branchaw, Hurtado, & Eagan, 2016). Mentoring may be structured or unstructured (Hairon, Loh, Lim, Govandoni, Tan and Tay, 2019) and can provide both extrinsic and intrinsic rewards (Kanmeyer-Mueller & Judge, 2007; Eby, Allen, Evans, Ng, & DuBois, 2008). Mentees might experience extrinsic tangible rewards, such as being hired, promoted, or provided with raises, as result of their mentoring relationships (Kanmeyer-Mueller & Judge, 2007; Eby, Allen, Evans, Ng, & DuBois (2008). Kanmeyer-Mueller and Judge (2007) and Eby, Allen, Evans, Ng, & DuBois (2008) also found that mentees experience satisfaction separate from those extrinsic rewards as a result of their mentorship relationships. Additional evidence suggests that mentors intentionally select mentees who they perceive to be promising and productive, who will provide similar intrinsic or extrinsic returns on the mentors' investments of time, energy, and resources (Kanmeyer-Mueller & Judge, 2007).

2.2.2 Mentoring Networks

Emelo (2015) suggests that mentees would benefit from having mentorship networks as opposed to individual mentors so that they can benefit from a diverse group of people who can influence the development of a mentee and contribute a variety of perspectives from across generations, functional areas, and skill sets. McCann, Rodesiler & Tripp (2012) also recommend that mentees gather a network of mentors as opposed to just one person. Similarly, the guide, *How to Mentor* (2019), explains that a critical function of a mentor is to assist a student in identify other mentors, as individual students have more needs than can be met by one person.

2.2.3 Mentoring Ambiguity

Mentoring relationships are subject to the explicit and assumed parameters of the relationship, as defined by those participating. Mentoring relationships can occur organically, when two people connect, or as part of a planned effort facilitated by a third party. When the structure of the mentoring relationship is ambiguous, participants can be left feeling confused and with unmet expectations (Poulsen, 2006). Some causes for variability in mentoring relationships include mentoring style (Leidenfrost, Strassnig, Schabmann, Spiel, & Carbon, 2011), including the degree to which the mentor will be directive, authoritative, or supportive (Poulsen, 2006). Poulsen (2006) also found that the degree to which mentees will be expected or are able to set the tone of the relationship and find their own solutions and resources with or without scaffolding and guidance from the mentor impacts the mentoring relationship. Leidenfrost, Strassnig, Schabmann, Spiel & Carbon (2011) found that mentees with mentors whose style was motivational performed better academically that those whose mentors had informational, minimalist, or negative mentorship styles.

Because of this variability, it is important that those who are building mentoring programs set appropriate expectations for and provide guidance and structure to program participants (Poulsen, 2006). Safer (2017) suggests that, in order for mentorship relationships to be successful, mentees must understand that mentors are there to provide support and advice but not to directly solve the mentee's issues. In addition to keeping one's expectations reasonable, Safer (2017) suggests that mentees have a clear agenda and goals for their mentorship relationships and that they manage their and their mentor's time well.

2.2.4 Unmet Expectations

Mentoring relationships can fail to thrive for a number of reasons. Mentors aren't usually well trained and can fall into the traps of attempting to direct and manage the mentee or providing excessive personal anecdotes instead of listening and understanding the mentee's values, goals, and needs (Starr, 2015). In addition, mentees often do not understand the role of the mentor (Starr, 2015). It is common for mentees and mentors to focus on the mentee's career outcomes and to fall into patterns of providing mentor directives for reducing mentee shortcomings which can be uncomfortable and frustrating if a mentee begins to feel as if he or she cannot report successes to the mentor (Starr, 2015) or if the mentee feels that the mentor is too self-absorbed to provide actual assistance.

Mentees can also have faulty expectations for the mentoring relationship. Emelo (2015 and McCann, Rodesiler & Tripp (2012) found that it is not reasonable to expect that one person can provide all of the support and connections one needs in order to be successful or to put the onus for one's advancement solely on another person. Additionally, when a mentee's only measure for success is an expectation that mentors will substantially advance their careers by opening doors or providing connections and positions, they are likely to be disappointed (Emelo, 2015; McCann, Rodesiler & Tripp (2012). Setting appropriate expectations and being transparent about the relationship's limitations can build trust and reduce miscommunication (Starr, 2015).

2.2.4.1 Structure

In addition to inappropriate expectations for the other person's deliverables and the nature of the mentoring relationship, poor executive functioning related to the relationship can cause relationships to fail. Both the mentor and the mentee must be timely, responsive to the other, self-

motivated to complete tasks related to the relationship (Hairon, Loh, Lim, Govandoni, Tan and Tay, 2019).

2.2.4.2 Personal Bias

Although Bierema and Merriam suggested in their 2002 article that electronic mentoring has the potential to remove the barriers to quality mentoring faced by women and minority groups, Milkman and Akinola (2014) found that women and students with Black-sounding names faced bias in the form of non-responsiveness to emailed requests for information from potential mentors, when compared to men and students with White-sounding names. This later finding adds weight to the arguments of Gahndi and Johnson (2016), that education and personal reflection on bias are critical components in mentor training, and the decades old but frequently updated Rackham guide to mentoring students, which includes taking differences in culture, ethnicity and gender into account as one of its four facets of mentoring (How to Mentor, 2019).

2.3 Effective Mentoring

Hairon, Loh, Lim, Govandoni, Tan and Tay (2019) found that mentoring program facilitators have an opportunity to reduce the chances for miscommunication and unmet expectations in mentoring relationships by providing structure and clear parameters to their mentoring programs. Mentor participants may also be trained so that they better meet the needs of their mentees and increase their mentoring competency (Gandhi & Johnson, 2016). Gahndi and Johnson (2016) found that mentor training increased both mentor and mentee perceptions of mentor competence. The training components they identified as impactful include:

- communication strategies,
- use of individual development plans,
- setting goals and expectations for the mentor–mentee relationship,
- how to teach time management,
- work-life balance,
- mentor and mentee evaluation tools,
- how to give and receive feedback, and
- information on diversity, bias, and microaggressions

This sort of training can be important in an area like mentorship, in which mentors can unconsciously put off mentees with social miscues or advice that is perceived to be critical (Hairon, et al., 2019).

Kraiger, Finkelstein, and Varghese (2019) identified 33 mentor actions (Appendix A) and 24 objectives (Appendix B) that contribute to effective mentoring relationships. Mentor actions that they include are self-awareness, listening, assessing the mentee's current skill level and interests, checking in, giving praise, sharing insider knowledge, providing resources, and encouraging introspection (Kraiger, Finkelstein, & Varghese, 2019). Relationship objectives include career progression, clarification of career objectives, creating opportunities, garnering knowledge and insight, removing barriers, improving the quality of work products, and getting the mentee started (Kraiger, Finkelstein, & Varghese, 2019). The American Psychological Association (APA) identifies tips for mentees and mentors embarking on mentoring relationships. Suggestions for mentees include having realistic expectations of the mentorship relationship and the amount of effort and time that they will need to put in to achieve their goals and that mentees must be proactive in initiating contact and facilitating the progress of the relationship (American

Psychological Association, Tips for Mentees). The APA's *Getting Your Mentoring Relationship Off to a Good Start* guide (n.d.) suggests that mentors and mentees do the work of setting expectations by having early, explicit conversations about the relationship's parameters, including what each participant is able to offer the other, establishing agreed upon outcomes for the relationship, and whom will initiate contact with whom and on what schedule. The NACE (2018) guide for mentors supports the APA's suggestions and provides list of questions mentors can ask to guide the early conversations with mentees, which will help to set the goals and parameters for the relationship.

2.4 Electronic Mentoring

Electronic mentoring resembles traditional mentoring in that mentors interact with mentees in order to provide guidance and support. In the early years of the internet, electronic mentoring consisted of chatting online, via email or chat service. When the mentoring relationships were formalized by institutions, the matching and relationship support was provided by a third party (Bierema & Merriam, 2002). In these situations, it was someone's job to check in with mentors and mentees to create initial profiles, make matches, and facilitate relationships (Bierema & Merriam, 2002).

As technology developed and social media sites began to proliferate, the potential of using social media for networking and mentoring meant that mentees needed to rely less on physical proximity in order to have a variety of potential mentors available quickly (McCann, Rodesiler & Tripp, 2012). Recognizing the potential, higher education institutions began to leverage sites like LinkedIn and Facebook to connect their students to the alumni in their networks, creating iterations

of electronic mentoring that relied on sites external to the institution to provide the connections (Hayden, Kitchens, & Macleod, 2010). What is vastly different now if the sophistication of the platforms currently available to us. While the characteristics of mentoring relationships have remained fairly stable, we can now expect computer applications to facilitate some of the matching and relationship support that would have been completed by a person previously.

Chi, Jones, and Grandham (2012) suggest that an alumni mentoring and networking system should incorporate aspects of social media platforms along with data mining algorithms to create systems that provide recommendations and activities to stakeholders (alumni and current student mentees), support alumni-student networking, and increase alumni interaction with other representatives of the university. Chi, Jones, & Grandham (2012) state that an effective system would filter alumni based on their availability for providing mentoring to students, connect the alumni who are available for mentoring to students, and then support the relationships by prompting mentoring relationship behaviors. The researchers note that previous system developers failed to harness all of the communication capabilities available to them so many mentoring systems fell short of full functionality (Chi, Jones, & Grandham, 2012).

In previous and current models of electronic-based mentoring, the participants in the mentoring relationship communicate primarily online, utilizing email, video calls, social media, and online platforms to interact with each other. The e-mentoring relationship allows participants to engage regardless of their geographic locations, schedules, or other commitments. Challenges then (and now) include access to and understanding of technology (Bierema & Merriam, 2002; Chi, Jones, & Grandham, 2012).

2.5 Platform Design

Platform design is important because the quality and design of a platform will determine its usability to students and mentors. According to UX Designer, Kate Holloway (K. Holloway, personal communication, 2019), Usability.gov is one of the leading resources for government and industry user experience professionals. The Usability.gov site is managed by the Digital Communications Division of the United States Health and Human Services' Office of the Assistant Secretary of Public Relations. Content on the site was produced in partnership with the United States General Services Administration (Usability.gov, About Us).

According to Usability.gov, in order to be valuable to the user, platforms must be useful, usable, desirable, findable, accessible, and credible (User Experience Basics, 2019). Additionally, Schneider (2011) recommends that platforms be integrated seamlessly with other systems, that they be easy to navigate, that they effectively facilitate discussion, and that people are easily findable on the platform. While there are many areas related to building a positive user experience, this study will focus on the Usability.gov guidelines for Usability Evaluation (UE, See Appendix C) and User Interface (UI, See Appendix D) Design. In particular, it is important to take into account the intuitiveness of the platform design, the ease of learning to use the site for new users, how efficient it is to use the site for experienced users, one's ability to recall enough about the site to use it in subsequent visits, how likely it is that users will make and need to recover from errors while using the site, and if use of the site was satisfying to the user (Usability Evaluation Basics, n.d.).

2.6 Summary and Conclusions

Career services offices across the country are inadequately staffed to meet the school-to-work transition needs of the students they serve. Additionally, many offices fall short of the professional standards guiding the field, which call for engaging alumni as a component of comprehensive services. Alumni are well-suited to support students during their job searches but alumni mentoring programs have historically required a great deal of time and effort to coordinate and have therefore been out of reach for most career services offices. Because mentoring relationships are subject to the pitfalls of interpersonal dynamics, personality differences, mentor and mentee time constraints, bias, and unrealistic expectations, it is imperative that coordinators of successful programs support participants' experiences by providing training and guidance for participants as relationships form.

Technological advancement in the areas of social media platforms and data mining algorithms have given rise to a variety of "smart" platforms that are able to facilitate connections between people and guide relationships to predictable outcomes. These advancements have allowed developers to create mentoring platforms designed to reduce the administrative load of career services professionals who wish to launch mentoring programs. Successful platforms should not leave much room for failure. On a platform designed specifically for mentoring, one would expect a system that is easy to find, easy to navigate, that makes clear the platform purpose, that makes it easy to connect to mentors and mentees, and supports and guides relationships as connections are made. The platform should prompt mentoring and mentee behavior that limits miscommunication and promotes quality exchanges between mentors and mentees.

Armed with this understanding of the need of students, potential of alumni, characteristics of strong mentoring relationships, and the ability of emerging systems, I am equipped to evaluate

the UNS, the platform that will be available to my office, to determine its usefulness to us in filling a gap in the services we provide to students.

3.0 Applied Inquiry Plan

3.1 Purpose

The purpose of the evaluation of the UNS platform is to determine the characteristics of a technological tool that is intended to engage graduate students during their job search with alumni through electronic mentoring (hereafter, e-mentoring). This exploratory user-based study will allow me to understand user experiences and reactions and, if needed, modify content, communication plans, and support structures in order to have a successful full launch of the platform in the fall term of 2020.

3.2 Rationale

The UNS, the e-mentoring and networking platform, has potential to allow the School of Education to expand career services to students, personalize students' educational experiences and support services, and create opportunities for students to receive career help as they need it. Doing a soft launch and related evaluation will allow me to improve the platform and set appropriate expectations prior to the full launch of the platform in fall of 2020. Although they report needing advice on careers and job searches, many students struggle to find the time for networking or to enlist job search support, which is typical of many students in short-term professional graduate programs. For this reason, electronic mentoring during the job search seems to be a way to address

the needs of students. Additionally, it will allow the office to better align with professional standards of practice.

In this study I will focus on MAT students, given their focus on earning a credential in one-year so that they may find teachings positions in secondary schools upon graduation (see Participants below for more details). Moreover, the time constraints of MAT students due to the intensity of the program (course work and school-based internship) are shared, to a somewhat lesser extent, by other students in School of Education working toward an MEd degree. For this reason, the findings of this study may also apply to other degree-seeking students in the School and are not restricted to only student seeking teaching licensure and positions as teachers in secondary schools.

3.3 Research Questions

Based on student reactions and perceptions:

- 1. Does the UNS promote the engagement of School of Education graduate students who seek career advisement?
- 2. Does the complexity of the platform deter students from its use?
- 3. What are features of the platform do students think are the most useful and least useful?

3.4 Setting

The setting for this study is the School of Education at Mid-Atlantic University. The University is a large-size, urban R1 institution in the mid-Atlantic region of the United States. The School of Education enrolls approximately 1,000 students each year, primarily in professional programs at the graduate level.

3.5 Description of the University Network System

The UNS platform allows for synchronous and asynchronous contact allowing the MAT students to connect to alumni outside of internships and class hours. If the platform offers flexibility in receiving career and employment advice to MAT students without sacrificing their academic and certification obligations, then it is reasonable to assume that the platform will work for students in other School of Education programs who are similarly constrained by work and other extracurricular commitments.

Mid-Atlantic University recently contracted with a company to create the UNS, an online networking and mentoring platform. After launching the UNS to limited groups of undergraduate students in the 2018-19 academic year, the University made the platform available to its graduate schools, including the School of Education.

The UNS platform allows alumni participants to determine the areas of expertise in which they will engage students. Some areas in which they share expertise might include providing resume review or job search advice, informational interviews, and networking or mentoring meetings. Alumni can also set the parameters of their engagement with current students, including

setting the number of students who can reach out to them in a given period of time (month, semester, year), the ways in which they will communicate (in person, via telephone, email, or through video chat) and the ways in which they are willing to share their expertise about the job search and their career fields.

On the platform, students are able to view the available alumni pool, their respective areas of expertise, and send requests for contact to available alumni via the platform. Both students and alumni are prompted to create profiles that provide information about their educational and work backgrounds. Those profiles allow users to view each other's experiences and allow students to be matched to alumni for job search support. The ability for communication to be synchronous or asynchronous allows students and working alumni more flexibility in developing their relationships than typical services that have historically been offered during daytime working hours.

To populate the alumni group, the university is working through the Alumni Association and Institutional Advancement officers. In the School of Education, the Director of Development, is responsible for recruiting alumni to the platform.

Site Context

The alumni in the UNS will be managed by the Director of Development for the School of Education, in conjunction with the Alumni Association. To inform myself on the usage and context of how the site works, I will monitor the UNS for traffic patterns and to gain information related to site usage from the ways in which the platform users interact with the site and each other. This information may include:

- public communication on discussion boards
- profile set-up

- times of use
- identified affiliations or other personal identifiers

The purpose of this initial investigation of site usage is to provide a rich context of the mentors and mentees on the site.

3.6 Participants

There were 41 students currently enrolled Master of Arts in Teaching (MAT) program. All 41 of the students were invited to participate in the survey portion of this study. The Master of Arts in Teaching students were enrolled in five secondary school academic areas: English Education, Foreign Language Education, Mathematics Education, Science Education, and Social Studies Education. The program is 10 months long and includes a rigorous, program-long student teaching experience that runs concurrently with full time graduate coursework. Additionally, all students in this group must balance their job searches in the spring and summer months, which adds an additional commitment of time and effort to their lives and scheduling difficulties on the part of the career services staff. These students were working toward the same degree, in differing content areas. The students had the same schedules and the same pacing through the year but three of their courses, related to content-specific pedagogy, were taught by content-area specific faculty members. These courses made up 9 of 36 credit hours in the Master's degree. Although they were pursuing the same degree and teaching certification level, the students were somewhat distinct from each other between content areas because of their previous academic interests and the differences in their content-specific pedagogy courses. The rigor of the program made the MAT

students an ideal participant pool for an e-mentoring platform pilot because of the time constraints students faced and the limited number of career service professionals to meet their needs.

Students were surveyed (see appendix C) once using the Qualtrics Survey System. Each participant received a link to the survey via email. Participants were informed of the soft launch and study in February and received the survey two weeks following the invitation to participate. Survey reminders were sent one week and two weeks after the initial survey link is sent.

Students were provided with informed consent and notified of the \$25 gift certificate for participation in the soft launch and associated study. Because of the nature of the platform, students selected the alumni with whom they will interact.

Students opted into the study by completing the survey. Based on their survey responses, a subgroup of students were invited for individual interviews, which allowed me to gain more indepth information about their experiences and to clarify responses from the survey.

Surveys

The survey instrument included a combination of Likert-scaled questions and open-ended questions. Surveys did not take longer than 10 minutes. Participants were instructed to reach out to troubleshoot any technical difficulties they experience while using the system. They were asked to reflect that difficulty in their survey responses. In Table 1, below, I categorized the survey questions based on the inquiry questions with which they aligned.

Table 1: Inquiry and Survey Questions

Inquiry Questions	Survey Questions
	 How easy was it to create your profile on the UNS? Overall, how easy was it to use the UNS system?
	 Overall, now easy was it to use the ONS system? After using the UNS, is the purpose of the UNS
	platform clear to you?
1. Does the UNS promote	How likely are you to use the UNS as you continue your
the engagement of School	job search?
of Education graduate	How likely are you to recommend the UNS platform to
students when seeking	your peers as a tool that will positively impact their job
career advisement?	searches or school to work transitions?
	Which features of the UNS system did you notice while
	exploring the platform?
	• Did the site help you with your job search?
	• If you used the UNS as part of your job search, which
	features of the UNS platform helped you?
	How easy was it to create your profile on the UNS?
2: Does the complexity of	• Overall, how easy was it to use the UNS system?
the platform deter students	After using the UNS, is the purpose of the UNS
from its use?	platform clear to you?
	Which, if any, features of the UNS platform were
	confusing or difficult to use?

	Which features of the UNS system did you notice while
	exploring the platform?
	Did the site help you with your job search?
	If you used the UNS as part of your job search, which
	features of the UNS platform helped you?
	Which features of the platform seemed promising but
	need to be strengthened prior to its full launch to School
3: What are the features that	of Education students in the fall term?
the students think are the	Please explain what needs to be strengthened prior to the
most useful and least	full launch of the platform.
useful?	Please provide us with any feedback related to your use
	of this platform that will help us to make the system
	better as a tool to support you with career services.
	Did the alumnus with whom you connected provide you
	with job search support?
	What job search support was provided by the alumnus?
	What did the UNS platform allow you to do that you
	would have had difficulty doing in the absence of the
	platform?

3.7 Interviews

Participants whose survey responses needed to be clarified or expounded upon were asked to participate in a brief interview. Participants selected for the interview subgroup were interviewed in June. Interviews took place via Zoom. Interviews were be conducted to clarify or inquire more deeply about responses given on the surveys. For this reason, a pre-prepared interview protocol was not appropriate. Questions were determined based on survey responses.

The purpose of this study was not to evaluate the quality of mentoring received by students. While the interview process was designed to probe technical aspects of the platform, it was reasonable to expect that the interviews might engage participants in conversation about the context and quality of their interactions with alumni.

3.8 Timeline of Study

January 2020
Survey Protocol Created
IRB Waiver Received
Analysis Procedeures Determined



February 2020

Informed Consent, Study Information and Surveys
Sent to All MAT Students, Mid-February
Reminders Sent One & Two Weeks After Initial
Survey



March 2020

Interview Participants Selected & Contacted
Interviews Conducted
Interviews Responses Coded
Gift Cards Distributed



April 2020

Data Analyzed

Results, Conclusions, & Recommendations Written

4.0 Findings

The findings in this section are the results of an analysis of eleven-item survey. Additional questions were added when responses needed clarification or explanation and from a four-question interview conducted with participants from three Master's degree programs in the School of Education. The survey and interview questions were designed to generate user feedback on an online mentoring platform, the University Network System (pseudonym, UNS), which will be launched to School of Education students in the fall term. This study was conducted to determine, from the users' perspective, the effectiveness of this platform, perceptions of its goals and purposes, clarity of procedures and directions, and possible modification before full implementation. Given the proliferation of on-line tools as turnkey solutions coupled with the lack of attention to users' concerns and technological abilities, this study attempted bridge the gap between designer and user. Survey and interview responses were used to answer the following three research questions:

- 1. Does the University Network System promote the engagement of School of Education graduate students who seek career advisement? If yes, how? If no, why not?
- 2. Does the complexity of the platform deter students from its use? If yes, what specific aspects of the platform are complex and thus deter use and require modification?
- 3. What features of the platform do students think are the most useful and least useful?

4.1 Participants

4.1.1 Programs

Twenty-one survey respondents from three programs, described below, responded to the UNS platform evaluation survey. Because of an initial low response rate from Master of Arts in Teaching (MAT) students (six respondents), the initial group targeted for evaluating the UNS platform, the study survey was opened to students in the Master of Special Education with Academic Instruction Certification (MOSAIC) program and the Master of Education in Higher Education Management (HEM) program. These additional programs were selected because of the cohort nature of the programs and the fact that both programs, like the MAT program, require intense internship experiences along with full time academic work. HEM students were separated into groups of first-year and second-year students when appropriate to show differences in the perceptions of platform users who were still active in their programs versus those who were completing their programs and preparing for graduation (see Table 2 below).

4.1.2 Gender, Age, and Years of Employment

As I have outlined in Table 2 below, of the twenty-one survey participants, nineteen identified with female pronouns, one identified with male pronouns, and one identified with gender-neutral pronouns. Twelve participants were under the age of 25, six were in the 25 to 29-year-old range, and three were 30 or older. Seventeen students (more than 80% of the participants) have had two or fewer years of work experience. Two students had 5-10 years of work experience and two students had more than ten years of work experience. This indicates that a majority of

participants in this evaluation joined their Master's programs shortly after completing their undergraduate degrees and a majority have very limited, if any work experience. The limited work experience of these participants suggests that these students might orient themselves positively to this on-line tool for assisting them in their job search after graduation.

Table 2: Participant Information

		Preferred Pronouns			Age				Number of Years of Full Time Employment							
	Total	she/her	he/him	they/them		≤ 24	25-29	30-51		0		2	5	9	12	18
Total	21	19	1	1		12	6	3		12		5	1	1	1	1
		1			ì		1	1	1					1		
HEM 1 st Year	6	5	1	0		2	3	1		2		3	0	0	1	0
HEM 2 nd Year	4	3	0	1		2	2	0		2		1	1	0	0	0
MAT	6	6	0	0		4	1	1		4		1	0	0	0	1
MOSAIC	5	5	0	0		4	0	1	-	4		0	0	1	0	0
	1		1		i				-				1			
HEM 1 st Year	29%	26%	100%	0%		17%	50%	33%		179	6	60%	0%	0%	100%	0%
HEM 2 nd Year	19%	16%	0%	100%		17%	33%	0%		179	6	20%	100%	0%	0%	0%
MAT	29%	32%	0%	0%		33%	17%	33%		339	6	20%	0%	0%	0%	100%
MOSAIC	24%	26%	0%	0%		33%	0%	33%		339	6	0%	0%	100%	0%	0%

4.1.3 Interview Respondents

Six survey respondents (29% of all respondents) were selected for follow-up interviews. These six students were selected because they all made use of the "connect-to-an-alumnus" feature as a part of their job search. The connect-to-an-alumnus feature is one that I have been particularly curious about and that is a unique feature of the platform. This feature requires that the platform be user-friendly and engaging to current students and to the participating alumni, as well. Since

current and previous experiences of the alumni are a critical factor in providing job search support to students, I wanted to understand better how students engaged with this feature.

Three of the six students responded to my requests for interviews. Two of them were students in the Higher Education Management program (one female, one male; one first year, one second year) and one student was in the MOSAIC program.

4.2 University Network System: Platform Tools

The University Network System (UNS) has twelve tools designed to assist users with networking with alumni and their job searches. Those features are designed to promote communication, connection, employment opportunities, and job search support. Table 3 names and describes these features and their purposes.

Table 3: UNS Features and Their Purposes

Alumni Profiles	Allow users to learn about alumni members' academic history, employment history, interests, and availability for job search support and networking.				
Calendar Sync	Allows users to set up notifications and alerts including text and email alerts when messages are received, discussions posts are added, and jobs are listed.				
Connect with an Alumnus	Allows users to indicate a desire to connect with an individual alumnus.				
Discussion Boards	Allow users to initiate group conversations around whatever topics they choose.				
Events Calendar	Allows users to see university-affiliated events posted by moderators.				
Explore Community Tool	Allows users to search the online community for other members, groups, and discussions.				
How-to Guides	Provide information on networking, job search etiquette, and job search strategies.				
Job Postings	Allow moderators to post jobs and community members to search for employment listings.				

Matching Quiz	Allows users to input education history and career goals and matches them to other users.				
Member Search Tool	Allows users to connect to other members by searching for their names.				
Message Feedback Tool	Provides real-time suggestions for optimizing messages as users type them.				
School of Education Affiliation Group	Provides online space for users who are affiliated with the School of Education.				

The remainder of this section will be dedicated to answering the research questions for this study. I will use the totality of the data collected in the surveys and interviews to answer each research question.

4.3 Does UNS Promote the Engagement of School of Education Graduate Students Who Seek Career Advisement? If Yes, How? If No, Why?

4.3.1 Features Noticed

To engage with the UNS platform, it is necessary for students to notice and understand the various features of the platform and their purposes. Noticing program features is not a trivial matter for on-line systems. Students cannot engage with and use what they do not notice or understand. the UNS has twelve features that are intended to facilitate student engagement with the site and alumni participants. Over half (12 out of 21, 57%) of respondents noticed between nine and twelve of the features as they explored the platform, 33% (seven of 21) of respondents noticed between six and eight of the features, and 10% (two of 21) noticed four or five of the features. The table below indicates the number of participants who noticed each feature.

NUMBER OF FEATURES NOTICED ■ Number of Features Noticed 14 12 12 11 11 11 11 10 10 10 10 10 8 6 4 R Τ В C D Е F G Η Ι J K L Μ N Ο Q

Table 4: Number of Features Noticed by Participants

Note. Letters A Through U Represent Each Participant

As indicated in the above table, participants did not equally notice all of the features of the UNS system, with noticing ranging from four features to all twelve features. While each of the platform features was noticed by at least four students (19%), only one participant (5%) noticed all twelve features. This range in noticing features indicates that the various functions and potential uses of the platform are not entirely clear to all users and, in some cases, do not capture the attention of the students. Supporting this finding is the fact that six participants (29%) indicated in comments that it was difficult to locate specific features and that the platform would be strengthened by making the features and their functions easier to find, understand, and navigate. Table 5 indicates the most and least commonly noticed features. As this table shows, the Member Search and the Explore Community tools were the most commonly noticed feature (100% and 95% respectively). The least-noticed features were the Calendar Sync tool (seven of 21 participants, 33%) and the

Message Feedback tool (nine of 21 participants, 43%). The Member Search and Explore Community features are accessed through the first link in the UNS top navigation menu, which may have made them easier to find by participants. Additionally, the Calendar Sync and Message Feedback tools might have been less interesting to students when exploring the site, particularly since their names imply a commitment to connect by sending a message and a commitment to synchronize a device with the site. Students who were prompted to explore the site may have avoided features that would require a commitment and, as a consequence, they may not have recalled these features as they were completing their surveys.

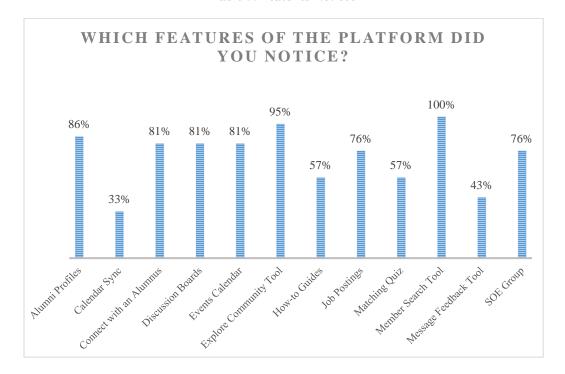


Table 5: Features Noticed

4.3.2 Ease of Use

Participants rated the ease of use of the UNS relatively favorably on survey items related to creating a profile and using the system. One hundred percent of participants indicated that

creating a UNS profile was extremely easy (12 out of 21 respondents, 57%) or somewhat easy (nine of 21 respondents, 43%). Similarly, more than 95% of participants reported that the UNS was extremely easy to use (nine of 21 respondents, 43%) or somewhat easy (11 of 21 respondents, 52%) to use.

4.3.3 Platform Purpose and Commitment to Use

Twelve of 21 participants (57%) understood the purpose only somewhat or not at all. Seventy-six percent stated that they were only somewhat or not at all willing to commit to using the system for a continued period of time. With more than half of the participants stating that the purpose of the system was not entirely clear and that their commitment to using it over time was doubtful, it is clear that UNS requires serious modification to meet its intended purpose as a career advisement tool. For example, one of the students specified that it was unclear if the site was intended to be social or professional.

4.3.4 Platform Navigation

Over half of the participants reported that the site was 'easy to use.' One participant indicated that navigation tools on the top of all pages would improve users' ability to manipulate the various features of the cite rather than requiring the user to constantly return to the home page. Three interviewees corroborated this reaction and stated that the site was difficult to navigate and that they would be more likely to make return visits if the information was more easily accessible. They suggested that the site would be easier to use if it provided email or push notifications for communication and job postings, was available in an app format, or if it could be accessed through

the my.pitt.edu site. These suggestions seem reasonable and would greatly improve the functionality of the UNS.

4.3.5 Searching for a Job

Only eight respondents (38%) reported that the site was useful to them in their job searches. This finding is not encouraging considering that the primary function of the platform is to support students during their job search. Among those eight respondents, the platform's job postings (eight of eight, 100%), the School of Education Affiliation Group tool and Explore Community tool (seven of eight, 88% each) were most commonly cited as being useful to the job search. The Member Search Tool, Alumni Profiles, and Option to Connect with an Alumnus were also rated as useful in the job search, with six out of eight students (75%) responding that they used each of those features. Slightly fewer (five of eight, 63%) respondents indicated that the How-To Guides, Member Posts/Discussion Boards, and Matching Quiz were useful to them as a part of the job search. Only three of the students found the message feedback tool to be useful for their job searches and no students reported that the Calendar Sync was useful to them. Respondents who indicated on the survey that the site was helpful as part of their job search (eight participants, 38%) were evenly split between "extremely likely" (four participants, 50%) and "moderately likely" (four participants, 50%) to continue to use the site and to recommend the platform to their peers. Not surprisingly, students for whom the site was *not* useful as a tool for searching for a job were less likely to continue to use the site and less likely to recommend the site to their peers.

Over half of the respondents (13 participants, 62%) indicated that the site was not useful to them in their job searches. This finding does not bode well for the use of this platform to facilitate career counseling with a large number of students and suggests that modifications are

clearly needed. Only one student indicated that she was extremely likely to continue to use the site for her job searches, 69% (nine of 13) indicated that they were somewhat likely to continue to use the site for their job searches, and 23% (three of 13) indicated that they were unlikely to continue use the site for their job searches. Among 13 participants that indicated that the site was not useful to them in their job searches, as one would suspect, only 15% (two of 13) were extremely likely to recommend the site to their peers, 54% (seven of 13) were likely to recommend the site to their peers. This finding is not surprising. If more than half of the participants did not find the UNS useful for job searches, it is unlikely that they would recommend it to their classmates.

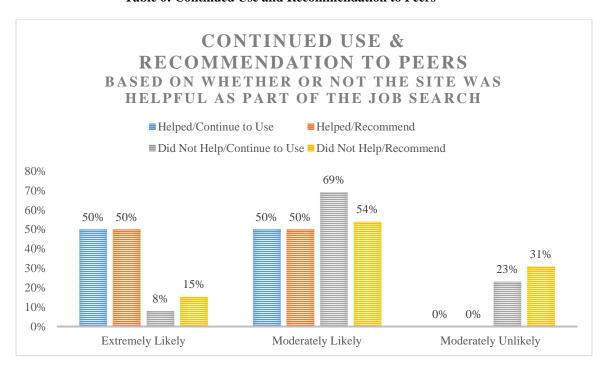


Table 6: Continued Use and Recommendation to Peers

4.4 Does the Complexity of the Platform Deter Students from Its Use?

The question remains as to why one half of the participants in this study did not evaluate the UNS as useful for locating a position after graduation. When asked if any of the features of the platform were confusing or difficult to use, more than half (12 of 21, 57%) of survey respondents indicated that they had difficulty using one or more of the site's features. Of the features identified as problematic, the Message Feedback tool and Calendar Sync were each identified as difficult to us by 24% (five of 21) of respondents. The Matching Quiz was identified by 19% (four of 21) of respondents as confusing or difficult to use. Ten percent (two of 21) of students indicated that the Alumni Profiles, Groups, and Explore Community tools were difficult to use. Only 5% (one of 21) of students found the How-To Guides and Connect to an Alumnus features to be difficult to use.

When asked for specific written feedback on these features, participants reported that the features were difficult to find (14 of 21, 67%), that the Matching Quiz did not yield appropriate results, that drop-down menu items were not visible when using the platform on a cellular phone, and that the site was glitchy and unstable. Specific issues included concerns that the matching tool always matched a teacher certification student in the Pittsburgh area to an Engineering executive in Seattle when there were clearly better aligned matches available. Timing was also an issue. The platform's pages timed out and did not allow students to navigate from page to page in the amount of time needed to complete their interaction on specific pages of the site. Although problematic, it is useful to know specifically where problems occurred so that modifications can be made. In several of these instances, these problems would not be difficult to fix.

Participants who were interviewed indicated that the Connect with an Alumnus feature of the site was potentially useful in a job search. However, their attempts to connect did not result in actual contact between them and the alumni from whom they were interested in receiving job search support. All three of the interviewees indicated that they had difficulty with their connection requests. One interviewee commented that he "couldn't figure out how to connect" and another said, "I thought that I submitted the request but could find no evidence of the submission," upon a return visit to the site.

Table 7: Features That Need Improvement

Feature	Number of Students Indicating Feature is Promising but Needs Improvement	Percent Indicating Feature is Promising but Needs Improvement			
Matching Quiz	6	29%			
Job Postings	6	29%			
Alumni Profiles	4	19%			
Events Calendar	4	19%			
Explore Community Tool	3	14%			
Message Feedback Tool	2	10%			
Calendar Sync	2	10%			
How-to Guides	2	10%			
Connecting with an Alumnus	2	10%			
School of Education Affiliation Group	1	5%			
Member Search Tool	1	5%			
Member Posts/Discussion Boards	1	5%			
None of the Above	5	24%			

Only five students (24%) indicated that no feature needs improvement. Each of the twelve features was identified as needing improvement by at least one participant indicating that the UNS in its present from is not universally clear or efficient. The Matching Quiz and Job Postings were identified by the most participants (six participants or 29% per feature) as needing improvement. Alumni Profiles and the Events Calendar were also cited by several students (four of 21 each, 19%) as promising but needing improvement. The remainder of the features were identified by one or two students each as needing improvement. Since sixteen students (76%) identified one or more feature as needing improvement and every one of the platform features was identified as problematic indicates to me that the platform needs serious work and modifications prior to its launch in the fall. In addition to the numerical feedback from the survey, participants wrote comments on improvements they would like to see. They stated that the site needs to "list as many jobs as possible," that "searches aren't fruitful," and that "the filters were too broad to be useful for my job search/professional connections search." Additional comments are provided in Table 9, below. A summary of the most salient issues concerning improvement is represented in these comments.

Table 8: Participant Comments on Features That Need to be Improved Prior to Full Launch

Feature	Comments
	"The 'areas of expertise' section was unclear at first. I was confused if it meant what I already have expertise in or what I would like help in. It was also hard to see all of the options you could select."
Matching Quiz	"I am not sure if by matching quiz you mean the thing when you first sign up or if it's something different. Perhaps calling it a matching quiz would make it easier to identify. "
	"parameters may need altered slightly to yield better matches"

	"list as many jobs as possible"						
Job Postings	"need to pull in education postings"						
	"lacked jobs"						
Alumni Profiles	"The filter option for K-12 education did not limit the alumni profiles to just teachers, but rather those who are somehow connected to the field of education. The filters were too broad to be useful for my job search/professional connections search." "more alumni need to join to make this platform attractive for students to join."						
Events Calendar	"a different set up for the calendar of events would help be more straightforward "						
Explore Community Tool	"the filters were too broad to be useful for my job search/professional connections search"						
	"Hard to truly connect."						
Connecting with an	"Couldn't connect to anyone."						
Alumnus	"Couldn't figure out how to make this work"						
	"Lacked alumni"						
School of Education Affiliation Group	"it would be more beneficial to create a first generation group to place within the 'Groups' tool"						
Member Search Tool	"searches aren't fruitful"						

The participant comments provide needed specificity related to problematic issues with several of the platform features. In some cases, the issues identified relate to the functionality of the platform itself, such as how features were named and labelled, filter malfunctions, and matching tool glitches. In other instances, such as with the Job Search tool, the solution to the problem identified was with the people who administer the site. In this case, for example, the site needs to be populated with jobs appropriate to our users or needs to have the capability to link students to more appropriate sites. Additionally, some problems could be mediated with administrator support for students, as with some of the challenges with connecting to alumni.

4.5 What Features of the Platform Do Students Think are the Most Useful and Least Useful?

4.5.1 Most Useful Features

Two thirds (14 students, 67%) of survey respondents indicated that the UNS platform allowed them to do things that other sites did not allow them to do. Although connecting to alumni was cited as problematic, all fourteen students stated that if modified to allow for easy access, this feature would be unique and would set the UNS apart. One student additionally cited the ability to use the site for job search support as a distinguishing characteristic.

4.5.2 Least Useful Features

Over half (12 students, 57%) of students felt that some of the platform's features were confusing or difficult to use. As mentioned in the previous section, the Message Feedback and Calendar Sync tools were most often selected as being difficult or confusing. Additionally, participants' write-in comments specified that the matching features in the Connect with and Alumnus and Community Search areas were problematic, making them unusable.

There were nine students (43%) who provided optional written feedback on the survey concerning their use of the site. Those students reiterated some of the feedback that had been shared previously. In particular, they had concerns about site navigation and instructions, the matching/exploration tools, making the site more accessible with an app or integrating the log-in to Pitt's single sign-on portal, and adding additional jobs and alumni. Two students also commented on the purpose of the site being confusing. One wrote, "I am not sure what the point of this is," and the other commented, "It was unclear to me if this platform is supposed to be like LinkedIn or Facebook—social or professional." These negative comments indicate to me that, beyond noting if the *individual* features were useful or not, some participants were confused on the *overall* usefulness of the site and its possible lack of distinction from other platforms available to them.

4.5.3 Continued Platform Use

Nearly a quarter of participants (five students, 24%) indicated that they were extremely likely to continue to use the platform for their job searches. Thirteen students (62%) indicated that they were somewhat likely to continue to use the platform, and 14% indicated that they were

unlikely to recommend the platform. Those who were unlikely to recommend the platform indicated that the site did not have enough jobs posted in their field and that they felt their peers would not benefit from using the site.

Over eighty percent of survey respondents (10 of 12) who stated that one or more of the UNS features were difficult or confusing to use indicated that they were not entirely sure that they would continue to use the site for their job searches. The remaining two students indicated that they were extremely likely to continue to use the site, despite having found one or more features confusing or difficult to use. Interestingly, none of the three students who indicated that they were unlikely to continue to use the platform noted confusion or difficulty in using the site's tools. Similarly, three of the four students who indicated that they were unlikely to recommend the platform to their peers experienced no issues with navigating the site or creating a profile.

When asked why they would or would not continue to use the platform, students commented that the platform had "everything in one place," that they enjoyed having access to alumni in order to build their networks, and that they enjoyed the sense of community.

Students who reported that they will not continue to use the platform indicated that the platform and job postings weren't specialized and did not reflect their field, that there were other sites that were better able to meet their needs, and that the site was not as easy to use as other platforms. As one student stated, "There are other ways outside of [the UNS] that are more helpful/relevant to my specific job search."

4.6 Unexpected Findings

While reviewing the data from the questions designed to inform me of the site's ability to promote engagement with alumni regarding students' future employment, I noticed that there was increasing negativity toward the platform as student moved through the survey. Beginning with the question on the ease of creating a profile and ending with the questions on whether or not the site helped students with their job searches and whether or not they would recommend the platform to their peers, the positive percentages shifted from 100% of respondents saying that it was easy to create a profile to only 38% (eight) of respondents indicating that the site was useful to them in their job searches. This finding may indicate that, while students initially found the site easy to navigate, they did not find it valuable enough to continue to use it throughout their programs. When prompted to write in responses on how the site could be improved prior to its full launch, three participants indicated that the idea of the site was good but, as many of their responses indicated, that the execution still needed work. In the interviews, all three students expressed enthusiasm at the concept of the site but expressed concern that the value-added or ease of use did not result in the site being a tool they would use often.

4.7 Challenges to Interpretations of Findings

In addition to the findings above, I was surprised to find discrepancies and contradictions in the Likert-scaled responses and between the written and interview comments. It was ironic that students who reported finding value in the features of the site also stated that they would not continue to use it or recommend it to their peers. Conversely, other students reported criticism of

the site's features but intended to continue to use it and to recommend it to their peers. These findings challenge interpretations that assumed that positive perceptions of the features would naturally result in continued use and that a negative perception of the site's features would correlate with discontinued use. A possible explanation for the responses of students who criticized the site's features but who intended to continue to use the site and to recommend it to their peers is that the survey instructions prompted respondents to provide site feedback in order to optimize the site for users in the fall term. This prompt may have caused participants to orient themselves to the survey in a way that elicited critical responses that masked participants excitement about the possibilities of the site. This explanation, however, does not explain the contradiction of the students who rated the site and its features positively but who do not intend to continue to use the site.

4.8 Between Group Comparisons

Because the majority of participants were 24-years-old or younger (12 of 21, 57%), had little to no work experience, and were more than 90% (19 of 21) female, it was difficult to discern any between-demographic group differences between them. However, two older students (ages 41 and 51) whose work experience was commensurate with their ages responded to the survey. Although I checked their responses against those of the younger, less experienced students, no differences in how they perceived the platform's ease of use were found. Between programs, the participants were evenly distributed on what features of the platform they noticed or didn't notice, whether or not they found the platform to be helpful to their job searches, and other responses.

4.9 Summary

Based on the findings, work needs to be done on and in support of the UNS to make it a successful, credible, and useful tool for students.

- 1. The UNS needs distinguishing characteristics. Access to alumni could provide this, direct job search support would help, as would increasing the amount and applicability of job postings.
- 2. Students need to be oriented to the site and told how to navigate it. This should include an overview of features including their purposes and locations.
- 3. The UNS needs to be promoted as a tool for job search support so that students use it as such and immediately understand why the site exists and how the site is to be used.
- 4. The UNS administrators need to adjust the platform, including more clearly labelling features, fixing navigational issues (provide top navigation on each page), and addressing algorithm problems with the Matching Quiz and Explore Community features.
- 5. The Alumni Office must recruit and populate the site with more alumni participants.

5.0 Discussion

5.1 Feature Misidentification

Though no one mentioned it specifically, there was some confusion related to the use of some of the UNS features. For example, contrary to its name and platform description, the Calendar Sync Tool is intended to be the place where system users go to in order to set up push notifications and email alerts for when a position the student might be interested in is posted, participated in a discussion they were following, or has sent a direct message to the user. The fact that multiple students commented on the lack of a notification system leads me to believe that the feature requires too many operations for its usefulness to be discovered. Additionally, comments such as, "I am not sure if by matching quiz you mean the thing when you first sign up or if it's something different. Perhaps calling it a matching quiz would make it easier to identify," indicate to me that participants may have *thought* that they were using one feature when, in fact, they were doing something else on the site. In this case the Matching Quiz is called Matching Quiz, so this student mistakenly thought that she had found it when she didn't actually. Misidentification of features is problematic because it indicates that students may not have noticed features that they thought they understood, making the usefulness of the actual tool lost on those particular students.

5.2 Platform Purpose

A serious concern is the fact that nearly 60% (12) of students reported that the purpose of the site was only somewhat clear or unclear. The written comments indicated that participants did not identify the purpose of the platform as being primarily a tool for seeking and receiving job search support, despite specific prompts in some questions to consider the site with their job searches in mind. Instead they identified the community connections to be a unique and desirable feature of the platform. The fact that many students found the system lacking in a sufficient number of job postings, combined with the abundance of features related to communication, community, and connection most likely contributed to a perception that the system is primarily for networking and building of community. Although a goal of my office is to promote students' connection to the School of Education community, the most pressing problem we hoped to address with use of the UNS platform was to promote students access to person-to-person job search support. Clearly, this goal has not been met.

For students pressed for time, as all of these students are, networking may seem like a less urgent task than completing school work, attending to tasks related to clinical site requirements, or investing in personal care. It seems likely that the students' moderate commitment to continue or recommend site use is that the perceived purpose of the site is not strongly aligned with the priorities of the students who are under pressure and time constraints to complete course work and clinical experiences while simultaneously searching for a position in education.

5.3 Recommended Modifications

The UNS platform has some drawbacks in its current state and it is not ready to be made available to students. After conducting this study, I am prepared to recommend changes that will make the platform more usable and to design supports that will make the user experience of the site more focused on the job search. In order to do this effectively, my team will need to provide specific guidance and navigation tips to platform users, partner effectively with both the UNS and Institutional Advancement teams, and work with the School of Education's marketing team to develop a plan for promoting the site, making it both easy to find and easy to understand *our* purpose for the site.

Due to students' perceptions that UNS is designed to promote networking as opposed to job search support, it will be important for us to shift students' perceptions of the site, so that they see that the primary purpose is to facilitate the school to work transition by receiving job search support. In order to do this, we will need to engage the marketing team to ensure that our communication related to the site sends a clear message and provides clear instructions to students on how to use the platform for the intended purpose. Piloting these instructions and site description on a group of students will prevent ambiguity on the purpose of the site and provide clear recommendations for its use. We must also build the site out in order to make time spent on it less confusing and with more tangible results in the form of actual connection to alumni and job search support.

5.4 Implications

Technology plays a role in how we, in higher education, manage our work loads. In the area of career services specifically, we increasingly look to technology to help us offer support to the myriad of students who demand our services. Without technology and the leveraging of other resources, such as alumni, we are unable to provide the personalized and flexible interaction that students prefer. Although technological solutions are often available to us, this study confirms that we must carefully vet those solutions. This sort of pre-launch evaluation will allow us to ensure that the technological solutions we select will serve their purposes. It will also allow us to save our institutions from misspent time and errors, both of which can cost institutions tens of thousands to hundreds of thousands of dollars, depending on the system purchased, the number of system users, and the time required of personnel to correct mistakes.

5.5 Dissemination Plan

In order to affect immediate change, I plan to share my findings with the UNS team so that they can use my student experience data to optimize the platform. In addition, I will share my findings with the School of Education's advancement team, which is responsible for stewarding the alumni side of the platform. In this way, my study will have a direct impact on the functionality of the UNS initiative and its ability to be a useful tool in the School of Education student and alumni populations.

The findings of this study also contribute to the body of practitioner knowledge outside of the School. As higher education career services teams increasingly look for technological solutions to the issue of understaffing, we will rely more and more on each other, across departments and institutions, to share information on which platforms work well to meet students' needs. In order to do my part as a member of this community, I plan to present my study results to Mid-Atlantic University's Career Consortium, which is comprised of representatives from all of the institution's career services teams and to the executive board of the Pittsburgh Education Recruiting Consortium, which is comprised of higher education career services leaders from institutions across western Pennsylvania and eastern Ohio.

5.6 Future Study

As my office continues to prepare the UNS site for its full launch, we will need also to examine the alumni user experience, in conjunction with our institutional advancement and alumni relations team. This study was focused on the student user. Future studies must also consider the alumni's perceptions to provide a comprehensive evaluation of the UNS. Once the platform launches, we will re-revisit the student user experience. We will gather this information by surveying the students and alumni at different points throughout the summer and academic year. We must also determine the efficacy of the platform, which we will do by conducting a survey of student and alumni outcomes at the conclusion of the 2020-21 academic year. In this way, the UNS tool will indeed respond to the needs of students and will facilitate the work of the career service office which is tasked with providing high quality career advisement to a large number of students.

Additional research will also be needed to determine whether or not this system, combined with the structured support students and alumni receive from my office and the institutional advancement office, promotes student and alumni satisfaction and feelings of affiliation with the School of Education. In order to make our system work for everyone, we will need to examine whether or not the support we provide effectively mitigates bias, promotes communication, provides enough structure, and effectively moves the mentoring relationships beyond transactional interactions.

5.7 Concluding Thoughts

As a practitioner, I occasionally find myself spending more of my time chasing deadlines and solving emergent issues than critically evaluating and building the foundational strength of my responsibility area. This comes at a cost, of course, and is self-perpetuating. When one is moving quickly, it is easy to miss issues and to make decisions that have unexpected consequences or set unwanted precedents, which, in turn, cause new emergencies and problems that need to be addressed themselves.

As such, the iterative processes of selecting and refining a topic, reading and evaluating literature, and honing my research, survey, and interview questions for this project and sticking with it, even though it was time consuming, was very important to me. Prior to my work in the Doctor of Education program, I would likely have used my professional judgement alone to make decisions leading up to the launch of a new project. This process has required me to be clear about the goals and outcomes I am striving toward. It has also required me to identify my partners, to

accept input, and to clearly delineate the roles of various people in successfully implementing a cross-departmental initiative.

Over the course of this project, it was important for me to learn how to ask the sort of questions that would prompt meaningful responses. Reading literature and professional guides related to system user experience and job search support as a part of mentoring relationships allowed me to be an informed surveyor. Additionally, the survey refinement process I undertook with my committee members and advisor was critical in teaching me to write clear and focused questions and prompts. The skill of asking the right questions in order to get back meaningful data will be valuable to me throughout the rest of my career.

The pre-launch work I have done for the UNS has made me a more knowledgeable and valuable contributor to the university-wide team of system users, has positioned me to better understand student needs related to the system, and allows me to design supports that will help to make the launch successful for the first class of School of Education student using it this fall.

This work has also made me a more engaged practitioner. Over the course of working on this project, I have found myself being more thoughtful and less hasty in making day-to-day decisions, often taking time to parse through problems as they arise so that I can find the root of an issue, delegate tasks that have more appropriate homes, and research a range of solutions so that I can, as much as possible, find solutions that address the root problem in addition to the result of it.

The work I've done over the course of this project has an immediate effect on what I am doing for students, how my office is handling the launch of the UNS, and how I am interacting on this collaborative effort with two other offices. More than that, though, it has helped me to better

ground my practice in research, collaboration, thorough understanding, the power of data, and informed decision-making.

Appendix A

Mentor Actions Identified by Kraiger, Finkelstein, and Varghese (2018)

- 1. **Being self-aware**: Mentor is reflective and honest with themselves regarding their own mentoring style as well as personal expertise, skills, and what they can offer their mentee.
- 2. **Being flexible**: Mentor is less rigid with rules or typical process for the mentoring relationship by taking extraneous factors into consideration.
- 3. **Collecting information**: Mentor gathers information from personal and/or written sources to be used in interactions with mentee.
- 4. **Setting expectations**: Mentor lays out what is required of one or both parties, possibly including a code of conduct for communication, mentee responsibilities in the relationship, etc.
- 5. **Asking questions**: Mentor asks specific questions or general questions to mentee that elicit either what the mentee knows about a topic or makes the mentee think more deeply about different situations.
- 6. **Assessing needs**: Mentor deciding for themselves the knowledge, skills, or competencies in which the mentee requires help, or understanding the gaps in the mentee's plans.
- 7. Assessing interests: Mentor asks questions of the mentee or observes the mentee in order to understand their mentees' interests in terms of the nature of tasks and projects they would like to undertake, their goals for the future, and their personal interests.
- 8. **Assessing current skills**: Mentor evaluates the skill set currently possessed by the mentee. This evaluation can be reached via probing questions or evaluating either current tasks or projects or those completed in the past.
- 9. **Analyzing issues**: Mentor diagnoses problems or critical weaknesses that are stopping the mentee from accomplishing goals or attaining successful completion of previously agreed-upon tasks.
- 10. Listening: Mentor actively and attentively listens to the mentee without redirecting the discussion.
- 11. Checking in: Mentor makes calls, sends emails, or visits their mentee.
- 12. **Socializing with mentee**: Mentor spends social time with mentee in a setting outside a work environment; this may include going out for drinks, having meals together, etc.
- 13. **Making general conversation**: Mentor engages in small talk about nonwork activities such as the weather, their interests in sports or other hobbies, etc.
- 14. Giving praise: Mentor commends a mentee's success or efforts that went into completing a task.
- 15. **Providing reassurance**: Mentor restates to the mentee that steps undertaken are in the right direction or helps to calm the mentee when things are seemingly going awry.
- 16. **Encouraging introspection**: Mentor encourages mentee to reflect on their past and current selves, as a person and as a professional, and to look for insights into their current situations.

- 17. **Sharing stories**: Mentor shares personal stories of past experiences of successes and challenges similar to what the mentee is going through currently.
- 18. **Sharing inside knowledge**: Mentor lets mentees know about how things work behind the scenes, introducing the mentee to how things are done in a particular workplace or business sector.
- 19. **Evaluating work**: Mentor monitors the work and goal progress of a mentee and makes a judgment regarding the quality and/or quantity of the work completed by the mentee.
- 20. **Giving feedback**: Mentor lets the mentee know how effectively a task/product was done, and/or what requires more work.
- 21. **Giving praise**: Mentor commends a mentee's success or efforts that went into completing a task (or the product of work).
- 22. **Providing perspective**: Mentor points out other angles of looking at an issue, or helps mentee see a problem or discrepancy from another stakeholder's point of view.
- 23. Providing advice: Mentor offers suggestions or recommendations to mentee regarding upcoming decisions or actions.
- 24. Walking through process: Mentor guides mentee in a hands-on way through various steps required to accomplish a task. This could also include listing a series of subsequent tasks in order to acquaint them to a new project.
- 25. Persuading: Mentor convinces mentee to undertake or change a course of action through reasoning or sustained effort.
- 26. **Giving assignments**: Mentor provides mentees with particular tasks or project opportunities. This may include tasks that help mentee improve skills, develop competencies, or strengthen expertise.
- 27. **Allowing to fail**: Mentor provides mentee with room to experiment with their decisions, planning, or thoughts related to prospective actions, even if they anticipate that the mentee is likely to fail given their approach.
- 28. **Providing modeling**: Mentor shows mentees how they would do something if they had to tackle a similar task or acts in a way that demonstrates effective behavior to the mentee.
- 29. **Providing resources**: Mentor makes resources available to mentee, such as books, websites, technology, or even financial assistance in special circumstances.
- 30. **Connecting to others**: Mentor either requests their colleagues take mentees under their wing or makes their mentees aware of opportunities.
- 31. **Protecting mentee**: Mentor stands up for mentee to other stakeholders and steps in when mentee requires help. This may also include mentors directing assignments away from the mentee that are not in their best interest.
- 32. **Promoting mentee**: Mentor promotes the mentee in forums such as meetings in which they can talk up their mentee.
- Passing on opportunities: Mentor makes mentee aware of growth opportunities in their career or occupational field.

Appendix B

Mentoring Objectives Identified by Kraiger, Finkelstein, and Varghes (2018)

- 1. **Build personal relationship**: Mentor wants a relationship with the mentee that is characterized by mutual trust, respect, and open communication.
- 2. **Improve overall quality of mentoring**: Mentor wants to continually improve the mentoring process or the quality of information shared with the mentee.
- 3. **Know more about the mentee**: Mentor wants to gain a deeper understanding of the preferences and style of the mentee so that they can alter their actions accordingly.
- 4. **Relationship maintenance**: Mentor wants to maintain a positive, open, and trusting relationship with the mentee over the duration of the mentoring.
- 5. **Build confidence or efficacy**: Mentor wants to help the mentee increase their confidence in their skills, their work, and their decisions and their efficacy to face potential challenges.
- 6. Improve emotional state: Mentor wants to reduce negative or increase positive feelings/emotions in the mentee, especially when mentees are required to undertake challenging tasks where they are likely to be emotionally flustered.
- 7. **Instill accountability**: Mentor wants the mentee to take responsibility for meeting their commitments and reaching their goals, even in the face of obstacles.
- 8. **Promote adaptability**: Mentor wants the mentee to use their skills sets in a malleable manner and be able to identify when a course change is necessary.
- Competence development: Mentor wants the mentee to build on competencies they are lacking or have not developed sufficiently.
- 10. **Improve efficiency**: Mentor wants the mentee to perform tasks in a time-efficient manner, with ease, fewer impediments, and better understanding.
- 11. Improve quality of work products: Mentor wants the mentee to produce work that is of higher quality.
- 12. **Expertise development**: Mentor wants the mentee to build on competencies in which they have already reached a sufficient level of proficiency to reach a level of expertise.
- 13. **Understand the steps involved to do a task**: Mentor wants the mentee to be able to work on a project or a previously agreed-upon goal by understanding the nuances and subsequent stages that lead to the final stages.
- 14. **Get mentees started**: Mentor wants the mentee to gain preliminary knowledge and confidence to kick start a new project.
- 15. **Remove obstacles**: Mentor wants the mentee to carry out tasks or assignments without having to spend unnecessary time on things that could be resolved quickly for them by their mentor.

- 16. **Garner knowledge and insight**: Mentor wants the mentee to be able to obtain a deeper understanding and appreciation of information needed to perform a task, make a decision, etc.
- 17. Make sound decisions: Mentor wants the mentee to be able to make informed choices using effective decision-making processes.
- 18. **Instill psychological safety**: Mentor wants to the mentee to feel secure such that there would not be any repercussions for failing as a result of reasonable risk-taking.
- 19. **Build or expand a professional network**: Mentor wants the mentee to create a network of professional contacts they can rely on to bolster their current standing and expand their career or resources.
- 20. **Resolving interpersonal issues**: Mentor wants the mentee overcome interpersonal conflict and have sound interpersonal relationships with other stakeholders.
- 21. **Creating opportunities**: Mentor wants the mentee to gain access to opportunities that were previously not available to them.
- 22. Prepared for life: Mentor wants the mentee attain a rounded experience so that they are better equipped to face later challenges, both expected and atypical, in and out of the workplace.
- 23. Clarify career objectives: Mentor wants the mentee to be able to iterate their objectives and plans for reaching their proximal and distal goals.
- 24. Career progression: Mentor wants the mentee to seek out and obtain roles that advance them in their careers.

Appendix C

Survey Questions

- 1. How easy was it to create your profile on the UNS?
 - o Extremely easy
 - o Moderately easy
 - o Moderately difficult
 - o Extremely difficult
 - 1.1 Please explain what was difficult.
- 2. Overall, how easy was it to use the UNS?
 - o Extremely easy
 - o Moderately easy
 - o Moderately difficult
 - o Extremely difficult
 - 2.1 Please explain what was difficult.
- 3. After using the UNS, is the purpose of the system clear to you?
 - o Extremely clear
 - o Moderately clear
 - o Moderately unclear
 - o Extremely unclear
 - 3.1 Please explain why the site purpose was unclear.

4. Which features of the UNS system did you notice while exploring the platform? (Select all that apply.)

- Message Feedback Tool
- o Matching Quiz
- o Calendar Sync
- o Alumni Profiles
- o School of Education Affiliation Group
- o Member Search Tool
- o Events Calendar
- o Member Posts/Discussion Boards
- How-to Guides
- o Job Postings
- o The Explore Community Tool
- o Connecting with an Alumnus
- o None of the Above

5. Did the site help with your job search?

- o Yes
- o No

5.1 Which features of the platform helped you with your job search?

- o Message Feedback Tool
- Matching Quiz
- o Calendar Sync
- Alumni Profiles
- School of Education Affiliation Group
- Member Search Tool
- Events Calendar
- Member Posts/Discussion Boards
- o How-to Guides
- o Job Postings
- o The Explore Community Tool
- o Connecting with an Alumnus
- o None of the Above

5.2 Did the alumnus with whom you connected provide you with job search support?

5.2.1 What was missing?

5.2.2 What job search support was provided by the alumnus? (Select all that apply.)

- o Resume/Cover Letter/Teaching Statement Review
- o Job Search Advice
- o Networking/Connection to Other People
- o Interview Advice/Mock Interview
- o General Mentorship
- o General Career Advice
- o Other, please explain

6. Which, if any, of the UNS platform features were confusing or difficult to use? (Select all that apply.)

- o Message Feedback Tool
- Matching Quiz
- o Calendar Sync
- o Alumni Profiles
- School of Education Affiliation Group
- o Member Search Tool
- o Events Calendar
- o Member Posts/Discussion Boards
- How-to Guides
- o Job Postings
- o The Explore Community Tool
- o Connecting with an Alumnus
- None of the Above

6.1 Please explain what was confusing or difficult.

7. Which features of the platform seemed promising but need to be strengthened prior to the full launch of the platform? (Select all that apply.)

- Message Feedback Tool
- Matching Quiz
- o Calendar Sync
- o Alumni Profiles
- o School of Education Affiliation Group
- Member Search Tool

- Events Calendar
- Member Posts/Discussion Boards
- o How-to Guides
- o Job Postings
- o The Explore Community Tool
- o Connecting with an Alumnus
- None of the Above
- 7.1 Please explain what needs to be strengthened prior to the full launch of the platform.
- 8. What did the UNS platform allow you to do that you would have had difficulty doing in the absence of the platform?
- 9. How likely are you to use the UNS as you continue your job search?
 - Extremely likely
 - o Moderately likely
 - o Moderately unlikely
 - o Extremely unlikely
 - 9.1 Please explain why you will/will not continue to use the system.
- 10. How likely are you to recommend the UNS platform to your peers as a tool that will positively impact their job searches or school to work transitions?
 - o Extremely likely
 - o Moderately likely
 - o Moderately unlikely
 - o Extremely unlikely
 - 10.1 Why would you not recommend the UNS?
- 11. Please provide us with any feedback related to your use of this platform that will help us to make the system better as a tool to support you with career services.

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