

Exploring Meaningful Experiences Promoting the Development of Graduate Students' Professionalism

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Graduate education advances students' competencies and skills to prepare them as professionals and should provide various learning experiences to support their development as socially responsible professionals who meet role expectations. Learning experiences that support the development of students' professionalism are discussed in the research, but limitations lie in understanding the constructs of professionalism. In response, this study examined formal and informal learning experiences that influence graduate students' understanding of professionalism and relevant learning experiences that support the development of professionalism. The study concludes with the implications of possible instructional strategies that can be used to promote professionalism in higher education.

The three-part mission of higher education adheres to the goals of research, teaching, and service (Binder, Chermak, Krause, & Thacher, 2012). Reflecting on ways higher education is being constituted, universities have been creating knowledge, applying it to serve the society, and equipping students with disciplinary knowledge and leadership skills, thus allowing them to serve various communities in and outside universities. Higher education has historically shifted from reaching out to communities to deliver expert knowledge towards engaging with communities to co-create solutions on local, national, and global levels, which are acts of scholarship that can advance knowledge and make societal contributions (Fitzgerald, Bruns, Sonka, Furco, & Swanson, 2012). Ideas around the scholarship of engagement and the philosophies of working with and serving the public continues to be encouraged, which is represented by the growing number of centers in universities that focus on civic engagement (Barker, 2004), and through recognizing that learning opportunities in developing scholarship of students also reside in non-academic settings as well as academic settings (Fitzgerald et al. 2012).

Along those lines, professionals have been described as individuals who instill their expert knowledge to the needs and values of the social systems and go beyond to provide service to the public (Kunitz, 1974; Larson, 1977). The similarities found between the mission of higher education and professionals providing service to society call for the importance of the ideas to be intertwined by higher education, supporting students' development as responsible professionals who respond to public needs and positively contribute to the society as leaders upon graduation. All students preparing for the workforce should develop professional skills to apply to society and reflect a sense of civic responsibility. Providing these learning experiences may also be effective in promoting students' long-term engagement in their field of work as well.

It may, therefore, be of value for graduate education to focus on offering learning experiences that foster student development, including research experiences, to support their research productivity (Paglis, Green, & Bauer, 2006), provide enriched learning experiences and curricula focused on their development as scholars to promote changes in the awareness of their professional skills (Fitzgerald et al. 2012; Franz, 2009), and to expand on the innovative ideas through research and apply ideas in a real-world context (Fitzgerald et al. 2012). Students' understanding of the purpose of higher education, as well as exploring the roles to take as professionals, may help gain insight into their future careers, which may help sustain their roles as professionals upon graduation.

There are various descriptions of professionals discussed in the literature, but the distinctive expectations of professionals lie on their abilities to apply their knowledge in social settings and on the level of contributions they make in societies (Flexner, 1915; Schön, 1983). The act of meeting those social expectations as socially responsible professionals are oftentimes referred to as one withholding and reflecting professionalism (Flexner, 1915; Sullivan, 2004). Based on that description, professionalism is then an intellectual activity that is connected to a specific responsibility (Flexner, 1915) and describes an act of all professionals to engage with societal values (van Mook et al., 2009). As graduate students enter their fields to take roles that directly influence communities, it should become essential for them to develop an awareness of the significance of their positions and the level of social responsibility they should adhere to. To lay out the foundations for graduate students to develop as professionals in higher education, this study attempts to understand experiences that influence their development as professionals, as well as learning environments that can be designed in graduate education to support their development of professionalism.

Professionalism in Graduate Education

Graduate education has been the learning platform that provides various opportunities for students to engage in meaningful learning experiences for them to develop as socially responsible professionals. However, the process of graduate students' development as professionals has been rarely discussed (Hurst, Cleveland-Innes, & Hawranik, 2013). As professional identities progress as individuals gain insight into the development and actual practices of their professions (Schein & Schein, 1978), graduate students provided with the opportunities to learn about professional identities including the attitudes, values, knowledge, beliefs, skills (Adams, Hean, Sturgis, & Clark, 2006), and ways to provide service to the public as professionals (Larson, 1977) may be meaningful.

Graduate education has highlighted the importance of professionalism in the past, but there have been variations in the knowledge and skills describing students' training as professionals. For example, professionalism has been described as the professional having acquisition of knowledge that focuses on the development of both knowledge and practice for real-world applications (Bastian & Yakel, 2005), or as the degree to which professionals exhibit unique attributes of that profession (Johanson, 2005). The literature also indicates different academic fields having varied definitions of professionalism, with the instruction of the development being context-specific and based on the need for the field. For example, medical education, which is a field that has initially engaged in research and development of professionalism in learning (Flexner, 1915), has historically changed perceptions of professionalism over time. Seeing the importance of ethical virtues as professionalism in the beginning has shifted toward physicians portraying behaviors and competencies of professionalism and currently discusses physicians forming their identities around a community of practice as a construct of professionalism (Irby, 2017). On the other hand, the field of engineering focuses on the students' professional development of technical, societal, and cultural skills needed to become globally competent engineers (Barakat, 2015).

Learning Environments in Graduate Education

Graduate students sense more value of their attained skills and research activities when the topic of learning becomes not only personally valuable, but socially recognized as well (Pabst, 2011). This aligns with the previous recommendation that graduate education should be designed for students to progress as professionals who can engage with the social contexts to serve the communities. As research productivity implies one's commitment to investigate

a problem in question (Pabst, 2011), an imperative step to enhance graduate students' professionalism is to design learning environments that expose them to socially relevant activities and develop a commitment to solving real-world problems.

Current instructional strategies cover a spectrum of learning experiences for students that instill values of engaging with communities. Ever since the imperative mission of higher education in promoting service learning and community engagement was proposed in the mid-1990s (Saltmarsh, Janke, & Clayton, 2015), universities have focused on students' development by designing community-engaged experiential learning environments, such as internship-based learning, service learning, and curriculums emphasizing work and service (Kovarik, 2010; Perrin, 2014). The different learning pedagogies focused on increasing students' engagement in communities through extending professional knowledge to be used in real-world situations for problem-solving (Perrin, 2014), emphasizing relationship building with communities (Perrin, 2014), and improving academic experiences so that they become relevant and meaningful (Kovarik, 2010). These learning activities enabled students to engage in autonomy and accountability for real-world implications, to develop a sense of peer support, to value academic learning, and to recognize the potential benefits of service-learning.

Moreover, additional efforts are currently being made to design learning strategies that enable students' active engagement in community-related activities. The strategies include experiential learning (Burrell, Finch, Fisher, Rahim, & Dawson, 2011; Karri & Kode, 2011; Lucas, Sherman, & Fischer, 2013) and service-learning (Bright, 2016; Levkoe, Brail, & Daniere, 2014; Richards, 2013), both of which integrate theoretical and practical experiences for learners, and provide opportunities for them to find the value of their knowledge and skills in the real-world and develop as reflective innovators of knowledge (Harkins, Kozak, & Ray, 2018; Kuk & Holst, 2018). Despite the effort to set the groundwork for designing learning environments, more research is needed in thoroughly investigating specific experiences that can enhance students' socially responsible mindsets, as well as the role graduate education might have in instilling these learning experiences. Adding value towards research that examines learning experiences that can be used in instruction to enhance the development of graduate students' professionalism will be meaningful.

Cross-disciplinary Professional Skills Training Program

In response to the emerging trends to promote community-engaged learning experiences and to integrate

the real-world application into instruction, a training program in a land and sea-grant University in the United States developed a professional skills training program for incoming doctoral students (Coffield et al., in press). A two-semester professional skills training program that provides early exposure to support students' development of professional skills that enable them to go beyond academic knowledge and work across disciplines, engage with communities, and develop problem-solving skills to provide sustainable solutions in the real-world was designed and implemented as a pilot study for three years. Each cohort group of the three-year implemented training program consisted of 13-15 incoming doctoral students who were contacted and recruited through recommendations from the departments across the University. The participating students enrolled in a six-week summer leadership academy course during the summer followed by a semester-long challenge course in the fall as they officially entered their graduate programs. Each week of the summer leadership academy consisted of activities including workshops and guest lectures, panel discussions, and field trips to local communities, and they focused on developing students' problem-solving, leadership, effective communication, teamwork, and community engagement skills. The workshops were organized and facilitated by the course facilitators, and content experts and community leaders were invited as guest lecturers and to participate in panel discussions. All topics were pertinent to enhancing students' professional skills. During the fall challenge course, students applied their knowledge and skills in collaboration with community experts to design community-related projects that addressed local issues so that they could provide feasible plans and develop sustainable solutions in underserved communities. Students worked in collaboration to engage across disciplines to develop leadership skills and work together to solve community issues.

Research Statement

Based on the overarching goal of graduate education to promote students' professionalism and the learning environments that can support the development, this study recruited participants in the cross-disciplinary professional skills training program to understand how participating in the program may have influenced their understanding of professionalism and experiences in the program that may have supported their development.

This study will contribute to graduate education as the findings will provide insights into both formal and informal experiences that influenced students' development of professionalism, which can be used to propose design guidelines of different instructional strategies that can support professionalism. The study will set the groundwork for how professional development can be generalized and implemented

across graduate education by examining the following: a) ways first-year graduate students in different fields perceive professionalism before and after participating in a cross-disciplinary professional skills training program, b) learning experiences that promoted their understanding of professionalism, and c) personal experiences that were significant and influenced their professionalism over time.

Through analyzing the qualitative data, the study aims to answer the following research questions:

- 1) What are the changes in the students' professionalism before and after the cross-disciplinary professional skills training program?
 - a) In what ways did their perspectives of professionalism change?
- 2) What are learning experiences in the program that can be suggested to promote the development of professionalism of graduate students?
- 3) What personal experiences and/or moments do students believe promoted their professionalism?
 - a) In what ways did the students perceive those specific experiences?

Methods

Research Design

A qualitative study was selected to understand the participants' perception of professionalism across the cross-disciplinary professional skills training program, as well as other personal and professional experiences. Qualitative research, which is an open-ended form of research, supports the meaning of data that is "socially constructed by individuals in interaction with their world" (Merriam, 2002, p. 3). Under the constructivist paradigm, open-ended questions were used so participants could openly discuss, share, and construct the meaning of their perspectives and experiences, in which patterns of meaning associated with the study were developed (Creswell, 2014). In collecting and analyzing data, a multiple-case design was employed. Case studies are an "intensive description and analysis of a phenomenon or social unit such as an individual, group, institution, or community" (Merriam, 2002, p. 8), and they investigate a contemporary phenomenon (the "case") in depth and within its real-world context (Yin, 2014). As the objectives of the studies were to understand participants' experiences across different disciplines, a multiple-case design was used to examine each research participant's personal and professional experiences, as well as their program participation experiences (Baxter & Jack, 2008).

Research Context and Participants

This study was designed and carried out by recruiting participants in the cross-disciplinary professional skills

training program, as the nature of the program in developing graduate students' professional skills through engaging with communities and solving real-world problems was aligned with the objectives of the study. On the first day of the training program, participants were asked to participate in this study to share their formal and informal learning opportunities related to professionalism. In the cohort that had 13 students, four students volunteered to participate in the study. The participants were from diverse disciplines, including anthropology, history, toxicology, and geography, and they were enrolled in the University's doctoral program. Out of the four participants, two participants joined the doctoral program after receiving their bachelor's degrees, and two participants had attended graduate school before joining the doctoral program to obtain their master's degrees. Prior professional experiences of the participants included research experiences and internships in their field. The four participants were equal in gender distribution with two females and two males, which was not intended in the recruitment process. In reporting the findings, pseudonyms have been used across the findings and discussion with Mia, Lauren, Will, and David as the participants.

Data Collection

Following the constructivist approach, open-ended semi-structured face-to-face interviews (Roulston, 2010) were conducted to gain compelling details and insights on how participants perceive professionalism, and the experiences as well as instructional strategies in the training program and in their personal and professional lives that promoted the development of professionalism.

An interview is a powerful way to gain insight into educational contexts through understanding the experience of the individuals (Seidman, 2013) and is considered among the most important sources of data and a technique most case studies employ (Yin, 2014). To gain insight into participants' experiences before and after the training program, pre- and post- interviews that lasted about one hour were conducted. The questions for both pre- and post-interviews were sent to the participants directly after each interview was scheduled. All interviews were audio-recorded and then transcribed for analysis (check Appendix for the interview protocols). The researcher met with each participant for the pre-interview at the beginning of the program and asked some of the following questions:

- What is your current understanding of professionalism?
- What is a personal experience that has led to changes in how you perceive professionalism?
- How do you hope to develop your professionalism through the training program?

The post-interviews were conducted at the end of the training program, which occurred about six months after the pre-interview. Some examples of the interview questions included:

- What is your current understanding of professionalism?
- Through the training program, were there changes in your understanding of professionalism?
- What are some learning experiences in the training program that promoted this change?
- What is a personal experience that has led to changes in how you perceive professionalism?

Data Analysis

Analysis. The research questions guided the analysis of the interviews by coding the data based on each participant's understanding and experiences of professionalism, as well as instructional strategies that promoted the development of professionalism. For research question #1 that examined the participants' changes of professionalism through the training program, pre- and post-interviews were coded to compare and track the changes of their perspectives. As research question #2 identified learning experiences that promoted the development of professionalism, examples in post-interviews were analyzed. Finally, as research question #3 aimed to understand personal experiences that promoted changes in the participants' professionalism, both pre- and post-interviews were analyzed to extract personal occurrences.

For all research questions, concept coding was initially used to generate codes based on participants' experiences to extract the represented meaning and provide a bigger picture of the data (Saldaña, 2016). Generated codes were then themed to further probe the meaning of the coded data, and as a result, overarching themes were found to represent a coherent narrative of the findings (Saldaña, 2016). The themes were then grouped into categories or experiences. A cross-case analysis is used to discuss the overarching findings of the research questions discussion (Yin, 2014).

Trustworthiness. To respond to the uncertainty of data quality and lack of reliability of case studies (Yin, 2014), the following procedures were taken to ensure the credibility of data. First, following the constructivist paradigm (Creswell & Miller, 2000), the interviewer developed a rapport with the research participants by spending time in the training program. The interviewer took notes during data collection as well as after data analysis in order to develop ideas and to note any issues as well as personal reactions (Maxwell, 2012; Saldaña, 2016). A peer debriefing process was used to receive feedback on the analysis and interpretation of the generated codes as well as themes. The first author

(also the interviewer) generated the initial codes and themes, and the second author provided feedback to reach an agreement of the analysis. The second author continued to check the plausibility of the emerging codes as well as themes (Merriam, 1995) and reviewed the transcription and its initial assertions made all throughout the ongoing analysis (Roulston, 2010).

Findings

Based on a cross-case analysis, the four participants' experiences related to their changes of professionalism over time through the challenge-based professional skills training program are discussed. Categories and related themes for each research question are discussed through interview excerpts from the beginning of the summer (pre-interview) and at the end of the fall (post-interview).

What are the changes in the students' professionalism before and after the professional skills training program?

The components of professionalism that emerged as a result of the training program included students' competence, the building of relationships, and perception of community-engaged activities. Participants' perceived changes of professionalism that occurred through participating in the cross-disciplinary professional skills training program identified competence as a component of professionalism. Before the program, competence was initially understood as an interest for a topic, which shifted towards being a strategic form that includes the knowledge and skills to efficiently and successfully perform the work at hand. At the beginning of the program, Will expressed his competence in his professional field that had developed through a passion for learning:

I was thinking about my future career and figuring out if I was only doing the classwork I chose to take. I mean those classes aren't quite enough for either becoming a professional or going to the industry. Nowadays, I read all about what is going on in my current field which is my passion, but I don't know where it actually came from.

After the program, he began to see the alignment between his professional knowledge being applied in the real-world context, by describing the importance of applying his professional knowledge base in solving real-world problems: "We have limited time, limited resources, we need to decide what we want to accomplish; which would be carried on in the future – being able to deliver to probably other organizations too, which would also be carried out for this

organization for probably years, not just for a semester or two." As competence from a higher education perspective is defined as a "functionally linked complex of knowledge, skills, and attitudes that enable successful task performance and problem solving" (Wiek et al., 2016), the training program was successful in influencing students' competence in higher education.

Building authentic relationships was another component of professionalism that was identified as the participants saw value in developing long-term relationships, in effectively working in collaboration, and in embracing the value of collaboration and communication skills. After the training program there were changes in terms of how participants viewed research and relationships, and the changes reflected a sense of empathy. Empathy describes the capacity of an individual to experience another person's feelings and ideas (Eisenberg & Strayer, 1990) and to be objective in the situation (Crandall & Marion, 2009). At the end of the program the participants expressed that their roles as professionals had a type of impact toward the real world and shared the importance of authentic relationships that are built on honesty and respect, as well as ongoing interactions that provide benefits to others and the values around collaboration in effectively and efficiently solving problems. As the participants understood their professional values of research and in interacting and building meaningful relationships with others, they became capable of reflecting not only on just themselves, but also on the larger contexts that could influence how they build relationships. Table 1 presents the overarching changes that were found before and after the training program.

Ways participants perceived community-engaged activities also shifted before and after the training program. The participants frequently expressed the experiences with community-engaged activities which helped enhance their professionalism after completion of the program. Community-engaged activities are oftentimes referred to as scholarly activities related to publicly engaged academic work, public engagement, community partnerships, etc. (Doberneck, Glass, & Schweitzer, 2010). The experiences participants had in working directly with community partners to solve problems through the training program enabled them to become more motivated towards making meaning of their work and to develop a sense of identity that is related to their professional roles. For example, in Mia's reflection on her perception of doing research, she expressed it as an ability she had as it enabled her to "jump from the idea stage and actually get to the 'doing something about it' stage" at the beginning of the program. After the program, Mia expressed her understanding of finding the meaning of doing research by describing the following:

I want to find these things out and be able to argue the relevance of what we're doing... if somebody tells me, hey, I want you to do this project, I'm not just going to say okay I'll do it; I'll do it but I'm also going to investigate why am I doing this, why does it matter, that type of thing.

Moreover, through the experiences of directly working with community partners to solve a community issue, students were able to develop a sense of identity by positioning themselves as professionals that can provide [an] actual impact to societies:

I just really want to believe in my work, and I feel like I don't believe in it right now, but anyway, that's – I'm trying to prove that what I'm doing, prove to myself that what I'm doing is important.

Overall, the learning experiences of the training program shifted participants' perceptions of professionalism. They went from having a generalized understanding of the roles towards having a more tangible understanding of their professions through enriched outlooks of their research and potential level of impact, as well as in specifying their roles as professionals in the communities. These findings lie in consensus with the responsibilities of universities to transfer and apply knowledge to improve the public (Fitzgerald et al., 2012).

What are the learning experiences that can be suggested to promote the development of professionalism of graduate students?

The nature of the professional skills training is to support incoming doctoral students' development of professional skills to go beyond academic knowledge

and work across disciplines, engage with communities, and develop problem-solving skills to provide sustainable solutions in the real-. After the program, the participants were asked to share the learning experiences of the training program that promoted their understanding of professionalism.

As a result, there were four learning experiences the participants identified, including community engagement projects, real-world applications, interdisciplinary panel discussions, and reflective opportunities. The community engagement projects enabled the participants to broaden their scope of research as they were able to discover firsthand and experience other possibilities of research. The nature of real-world applications in working alongside communities also helped participants to see broader perspectives and to understand the actual influence their work can have in societies, as well as in solving real-world problems. Opportunities to listen to and communicate with various guest speakers who were invited to panel discussions to share their experiences in doing community-engaged work were also beneficial for the participants to obtain different perspectives and increase awareness for community engagement. Through reflective opportunities that were embedded throughout the training program, the participants were able to reflect on themselves as well as through communicating and interacting with instructors of the program, which enabled them to be attentive to their development of professionalism as researchers. Refer to Table 2 for a list of these learning experiences and interview excerpts describing how the training program influenced their professionalism.

Table 1
Shift in Students' Perception of Professionalism Before and After the Training Program

Components of professionalism emerged	Students' perception at the beginning of the program	Students' perception after the program
Competence	Interpreted as an interest in a topic	Competence is interpreted as an efficient and successful performance for real-world problem-solving
Building relationships	Building relationships through communication and collaboration	Building relationships through real-world communication, developing empathy
Perceptions of community-engaged activities	A response in conducting research	Opportunities to develop a sense of identity as researchers, finding the purpose of research through creating real-world impact

Table 2
Learning Experiences of Professionalism in the Cross-disciplinary Training Program

Learning activity	Learning experiences	Interview quotes explaining how the experiences promoted understanding of professionalism
Community engagement projects	<ul style="list-style-type: none"> • Discovering new issues other than what one knows • Connecting one's interest in real-world contexts • Real-world application of one's knowledge 	<ul style="list-style-type: none"> • Just in doing our projects, I mean that's really helped me empathize mostly because I'm doing a project that concerns an issue that I didn't even ever think about before. • I think the training program is great because .. I guess they want to try to inspire us to be people who can take our research and actually learn how to make the connections we need to make so that it can be pulled into the actual community. • This semester, the (real-world) experience has really helped (..) just working with the project and learning one example of something that I'm not familiar with that's a problem, it kind of opened my eyes to the fact that there must be so many problems that I don't even think about that these people are experiencing.
Interactions	<ul style="list-style-type: none"> • Gaining multiple perspectives • Understanding various dimensions 	<ul style="list-style-type: none"> • We also interacted with a lot of panelists and community members and so just – I mean, simply through that and like – those people have so many different experiences than what I have or the faculty in my department have that really just – it kind of increased my awareness of opportunities for community engagement, service-learning, and then how to do those. Like lessons that they learned in their process of pursuing those goals.
Reflective activities	<ul style="list-style-type: none"> • Reflecting on self 	<ul style="list-style-type: none"> • The kind of constant level of interaction that we had with the instructors helped us develop trust so that we could talk about things that were a bit more difficult or awkward and kind of actually try to make progress in those areas, and I think a lot of reflection kind of helped in that process.

The learning experiences that were designed as part of the training program allowed participants to become more mindful of themselves, as well as the society, as they began seeing the larger scope of what can be done through real-world application. Moreover, by listening to experiences of community representatives, as well as faculty who worked firsthand with communities increased their awareness of roles to take as professionals. Reflective opportunities that were provided throughout the program also enabled students to conceptualize their thoughts and ideas and to develop their self-identities as professionals (Neve, Lloyd, & Collett, 2017). The participants' acquired ability to look into, and engage directly with communities aligns with the conception that professionals should be able to reflect on themselves to develop abilities to apply knowledge into practice to support the needs of social contexts (Chickering, 2010).

What experiences and/or moments do students believe promoted their professionalism?

To better examine overall experiences that may promote graduate students' professionalism, the participants' personal experiences were also explored. Through both pre- and post-interviews, the participants shared experiences and opportunities that they believed developed their professionalism.

Personal experiences that influenced the participants' professionalism were through the level of interaction with others. Lauren shared her past experience in working as an intern in another country where the culture in that workplace and her values collided. Lauren had made a mistake and was told of this mistake through a co-worker, who had been notified by two of her managers. Lauren explained how

she was highly offended by this situation as additional people had found out about the mistake she had made. Although this situation was difficult for her to understand, she later learned that the two managers were using the most appropriate way to tell her about the mistake by having her co-worker deliver the message. Through this experience, she explained she was able to develop mindfulness of the differences and values that can derive from working with different cultures. Will also shared his interactions with various people, which helped him form personal ideas of professionalism. When thinking about his future career, he had an opportunity to interact with some senior peers who were very passionate and were actively seeking out opportunities to expand their research interests. By interacting with student colleagues, Will was able to expand his horizons and see the possibilities of how he can continue developing as a professional.

Interacting with mentor figures (McLaughlin, 2010) and with people who shared prior experiences with the participants (e.g., community-engaged project experiences, interdisciplinary collaboration and engagement) helped them form distinct ideas about what professionalism is. Mia asserted that the mentoring experiences she had will influence her role as a professional in her field in the future, as those experiences helped her identify the gaps between the current professionals (e.g., professors) in her field and the type of mentor she hopes to become. Aligned with the discussion that mentorship plays role in shaping doctoral students' identities as future faculty (Anderson & Anderson, 2012), she was able to understand the different types of professionals/mentors and the personal traits she would want to have as a mentor in being passionate about sharing knowledge and being empathetic with her students.

Additional experiences that supported the participants' understanding of professionalism were through interdisciplinary engagement and collaboration, as interacting with others across different fields helped them to be more reflective of themselves. David had drastically changed majors prior to enrolling in the graduate program, which naturally enabled him to gain prior experiences of engaging with people from different disciplines. Through these past engagements, David acknowledged interdisciplinary collaboration as an experience that shaped his understanding of professionalism and further noted that it can also support the development of becoming an effective leader with broader perspectives. Moreover, through interdisciplinary engagement opportunities, Mia was able to learn the value of collaboration, where she also recognized empathy as a vital factor in a construct of professionalism. The experiences that come from naturally occurring situations and environments may positively influence the development of professionalism,

as its nature may enable individuals to become more ethical and reflective of their positions and practice to apply the appropriate knowledge and skills (Trede, Macklin, & Bridges, 2012). Refer to Table 3 for a description of the personal events and its related learning mechanisms, and relevant quotes from the interviews.

Discussion and Conclusion

Perceptions and experiences of incoming graduate students' professionalism were examined through this study. The purpose of this study was to understand the incoming graduate students' perceived understanding of professionalism before and after the cross-disciplinary professional skills program, as well as learning experiences related to professionalism through the training program. Further, personal experiences that influenced their understanding of professionalism were also discussed

The changes in students' professionalism before and after the training program were influenced by the nature of the training program promoting socially responsible and scholarly activities through real-world, authentic learning experiences. Allowing students to identify authentic problems and provide sustainable solutions through utilizing their professional knowledge enabled them to see the possibilities of the broader impact they may provide and the importance of the application of knowledge and skills in the communities. The aims of the training program, to allow students with learning opportunities to engage in community issues, were effective as it supported their understanding of their roles in society. This is consistent with the purpose of community-engaged learning activities, as these enable students to experience empowerment of knowledge and skills and to find the meaning and value of learning (Kalas & Raisinghani, 2019), and they promote students' active involvement in working with the public (Bringle & Steinberg, 2010). As individuals valuing communities as a form of professionalism may empower them to continue producing significant research that benefits the society, as professionals, they will be able to maintain scholarly agendas throughout their careers by responding to the goals of higher education (Fitzgerald et al., 2012).

Learning experiences that promote students' understanding of professionalism aligns with the learning pedagogy that focuses on service learning. Service learning connects the curriculum to community needs so that students engage in direct problem-solving of social issues (Altman, 1996). Service learning enables students to participate in activities that meet community needs, as well as reflect on those activities to gain further understanding of the course content and an enhanced sense of personal values and civic

Table 3
Personal Experiences that Promote Students' Professionalism

Personal Events	Learning Mechanisms	Quotes
Interaction with others	<ul style="list-style-type: none"> • Reflection 	<ul style="list-style-type: none"> • It did help me learn to understand that there are different dynamics and that I was assuming that they were being rude or mean..but in actuality, their intention was to be as thoughtful as they could be. So I guess it helped me develop mindfulness of different values and approaches. • The seniors at the time (during my second year of college), graduate students, they were really creative, eager to learn, and very passionate in their areas. Yeah, in being a professional you need to have passion. I learned a lot from them, not only academics but also the way, or how you need to or could absorb more knowledge.”
Mentor figures	<ul style="list-style-type: none"> • Modeling 	<ul style="list-style-type: none"> • I want to be an empathetic mentor... I'm really excited that I kind of was able to figure out because I really think it's important to carry that forward because I think there's such a shortage of people, I look around me and I don't see a lot of people in academia or necessarily passionate about their students, passionate about sharing knowledge and empathetic and that type of thing.
Collaboration	<ul style="list-style-type: none"> • Multiple perspectives • Communication 	<ul style="list-style-type: none"> • I feel that the more kind of entrenched you become in your specific field, the more likely it is that your ideas are just going to be kind of echoing back on to you rather than being challenged and questioned and everything. And I feel like an effective leader needs to have a lot of people from a lot of different backgrounds with a lot of different life experiences to kind of not necessarily actively challenge his or her worldview, but to just see – experience those worldviews. • I think that there is this important element of being concerned about other people and like facilitating sort of a collaborative workplace. And empathy is really important to achieving that goal of achieving a collaborative workplace and I think that that's a huge part, like empathy and caring about other people, that's like a huge part of professionalism that I used to think was – I used to not associate that with professionalism.

responsibility (Bringle & Hatcher, 1995). Furthermore, it provides learning experiences that contribute to the students' acquisition and development of socially responsive knowledge; they can see firsthand and experience social problems and are able to gain an understanding of community issues (Altman, 1996). These described experiences learners can have through service-learning activities align well with the experiences of the training program that students shared which promoted their understanding of professionalism. Since service learning implies the teaching and learning of cognitive processes, student-centered instruction, and collaborative learning (Bringle & Steinberg, 2010), the use of these learning pedagogies may be beneficial in designing instruction to develop graduate students' professionalism.

Personal experiences that promoted the understanding of professionalism were related to their interaction with others (e.g., professional relationships, mentors, and interdisciplinary collaborative opportunities). These interactions influenced their personal perceptions of professionalism and experiences that broadened their understanding, such as developing an awareness of others' thoughts and insights, and other professional experiences that promote personal awareness as professional beings. As professionalism is not just simple acquisition of knowledge and skills but is considered a transformational process (Wilson et al., 2013), having opportunities for individuals to interact with others, all while reflecting on themselves may support their development of professionalism as they gain a better understanding of what professionalism could entail.

Overall, unpacking graduate students' experiences that promote the development of professionalism contributes to understanding the complexity in setting the foundation to implement professionalism development in graduate education. In the past, various disciplines have highlighted the importance of engaging with societies as a form of professionalism (Flexner, 1915; Hancock & Walsh, 2016; Kunitz, 1974; Larson, 1977), and disciplines have individually examined professionalism particularly by the demands of the field, with learning objectives focused on the professional's personal development (Dalli, 2007; Harwood & Tukonic, 2016; Mohan, Merle, Jackson, Lannin, & Nair, 2010; Stern, 2006). Through this study, the underlying meaning of professionalism and learning experiences perceived by graduate students were examined to offer insights in generalizing professionalism and in designing learning that promotes the development of professionalism.

Implications for Research and Practice

The findings of this study can be used as groundwork in designing instructional guidelines to develop applicable strategies that can be widely adapted

to use in graduate education. The program supported students' development of professionalism through interdisciplinary collaboration and communication, various opportunities to engage with different professionals that utilize their professional roles to work directly with communities, understand the interconnectedness between their competence and to solve social problems, and opportunities for reflection. Students being exposed to these interventions enabled them to reflect on ways to utilize their professional roles in society and see the effectiveness their roles can have as well. For graduate education to promote professionalism in instruction, the context of the cross-disciplinary professional skills training program that offers early interventions for students to enhance their problem-solving, leadership, effective communication, teamwork, and community engagement skills may be a possible direction to promote students' development as professionals that withhold the competence (e.g., professional knowledge and skills) and abilities to communicate their understanding with the larger context, all while reflecting on themselves as well as the needs of the larger communities.

Graduate education should focus on students' knowledge development as well as their real-world application skills, which will support new scholarship that allows students to make the most of developing their own values and goals in education (Strouse, 2015). Professionals develop abilities to solve problems in practice (e.g., real-world problems), and they become capable of transferring their content knowledge. Transfer of content knowledge enables them to reflect on themselves and eventually towards thinking about the meaning and practice of their knowledge in real-world contexts (Schön, 1983). As there have been needs for the field of instructional technology to work towards designing instruction that meets the public expectations (Yusop & Correia, 2012), making further attempts to design instruction grounded in pedagogies including community engagement, interdisciplinary collaboration and engagement, service, mentorship, etc., will enable learning experiences that help students' reflective practice (Culhane, Niewolny, Clark, & Misyak, 2018) and to make meaning of their professions.

Limitations and Suggestions for Future Research

Some limitations of this study are as follows. A total of four graduate students out of twelve students took part in this study. Although the research participants in the study had different majors, three of the four participants were in departments within the same college. Since the findings result from the participants' experiences (e.g., prior experiences, their field of studies), the lack of variation may have affected the findings. Moreover, the

participants' shared perceptions of professionalism could have been influenced by their personal experiences, including background knowledge, prior experiences, the purpose of enrolling in the training program, and the nature of their research programs. Volunteer bias (Salkind, 2010) may have occurred as participants who had positive experiences with their professional lives in the past may have volunteered to take part in the study, which would influence the professional experiences they shared. Due to these variations, conducting interviews with a wider selection of participants may be needed to inform a more generalized finding in understanding the development of professionalism of graduate students and in setting the groundwork for designing learning environments.

The duration of the pre- and post-interviews were within a period of six months. Though the changes of professionalism, as well as learning experiences of the training program, were part of the investigations of this study, the time period may not have been long enough to investigate and document the changes of students' perceptions of professionalism. Moreover, the nature of the program focused on developing students' professional skillsets may have limited the findings of instructional strategies that can be used to promote professionalism.

Further investigations to examine the types of instructional strategies that are currently being used across different fields may add value to identify cross-cutting strategies that are mutually beneficial across all fields and applicable in generalizing professionalism development in graduate education. Addressing the limitations of this study may also set the direction in continuing to follow the current trends of higher education by ensuring its sustainable commitment towards community engagement.

References

- Adams, K., Hean, S., Sturgis, P., & Clark, J. M. (2006). Investigating the factors influencing professional identity of first-year health and social care students. *Learning in Health and Social Care, 5*(2), 55-68.
- Altman, I. (1996). Higher education and psychology in the millennium. *American Psychologist, 51*(4), 371-378.
- Anderson, S., & Anderson, B. (2012). Preparation and socialization of the education professoriate: Narratives of doctoral student-instructors. *International Journal of Teaching and Learning in Higher Education, 24*(2), 239-251.
- Barakat, N. (2015). Engineering ethics and professionalism education for a global practice. *QScience Proceedings, 2015*(4), 1-6.
- Barker, D. (2004). The scholarship of engagement: A taxonomy of five emerging practices. *Journal of Higher Education Outreach and Engagement, 9*(2), 123-137.
- Bastian, J., & Yakel, E. (2005). 'Are we there yet?' Professionalism and the development of an archival core curriculum in the United States. *Journal of Education for Library and Information Science, 46*(2), 95-114.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13*(4), 544-556.
- Binder, M., Chermak, J., Krause, K., & Thacher, J. (2012). The teaching penalty in higher education: Evidence from a public research university. *Economics Letters, 117*, 39-41. doi:10.1016/j.econlet.2012.04.021
- Bright, L. (2016). Public service motivation and socialization in graduate education. *Teaching Public Administration, 34*(3), 284-306. doi:10.1177/0144739416645650
- Bringle, R. G., & Hatcher, J. A. (1995). A service-learning curriculum for faculty. *Michigan Journal of Community Service Learning, 2*, 112-122.
- Bringle, R. G., & Steinberg, K. (2010). Educating for informed community involvement. *American Journal of Community Psychology, 46*, 428-441.
- Burrell, D., Finch, A., Fisher, J., Rahim, E., & Dawson, M. (2011). The use of engaging and experiential learning innovative teaching practices for graduate students. *Review of Higher Education & Self-Learning, 4*(11), 45-53.
- Chickering, A. W. (2010). Our purposes: Personal reflections on character development and social responsibility in higher education. *Liberal Education, 96*(3), 54-59.
- Coffield, J., Choi, J., Choi, I., Walker, B., Walters, K., Hill, J. R., Kim, S., Rechtman, J., Carmichael, K. P., Pidaparti, R., Welch-Devine, M. (in press). GS LEAD: Preparing professionals across disciplines. *Journal of Higher Education Outreach and Engagement*.
- Crandall, S. J., & Marion, G. S. (2009). Commentary. Identifying attitudes towards empathy: An essential feature of professionalism. *Academic Medicine, 84*(9), 1174-1176.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice, 39*(3), 124-130.
- Culhane, J., Niewolny, K., Clark, S., & Misyak, S. (2018). Exploring the intersections of interdisciplinary teaching, experiential learning, and community engagement: A case study of service learning in practice. *International Journal of Teaching and Learning in Higher Education, 30*(3), 412-422.

- Dalli, C. (2007). Pedagogy, knowledge and collaboration: Towards a ground-up perspective on professionalism. *European Early Childhood Education Research Journal*, 16(2), 171-185.
- Doberneck, D. M., Glass, C. R., & Schweitzer, J. (2010). From rhetoric to reality: A typology of publically engaged scholarship. *Journal of Higher Education Outreach and Engagement*, 14(4), 5-35.
- Eisenberg, N., & Strayer, J. (1990). *Empathy and its development*. New York, NY: Cambridge University Press.
- Fitzgerald, H. E., Bruns, K., Sonka, S., Furco, A., & Swanson, L. (2012). The centrality of engagement in higher education. *Journal of Higher Education Outreach and Engagement*, 20(1), 7-28.
- Flexner, A. (1915). *Is social work a profession?* In National Conference of Charities and Corrections, Proceedings of the National Conference of Charities and Corrections, Baltimore, MD, May 12-19, 1915. Chicago, IL: Hildmann.
- Franz, N. (2009). A holistic model of engaged scholarship: Telling the story across higher education's missions. *Journal of Higher Education Outreach and Engagement*, 13(4), 31-50.
- Hancock, S., & Walsh, E. (2016). Beyond knowledge and skills: Rethinking the development of professional identity during the STEM doctorate. *Studies in Higher Education*, 41(1), 37-50.
- Harkins, D. A., Kozak, K., & Ray, S. (2018). Service-learning: A case study of student outcomes. *Journal of Service-Learning in Higher Education*, 8, 1-14.
- Harwood, D., & Tukonic, S. (2016). Babysitter or professional? Perceptions of professionalism narrated by Ontario early childhood educators. *International Electronic Journal of Elementary Education*, 8(4), 589-600. doi:10.5339/qproc.2015.elc2014.5
- Hurst, D., Cleveland-Innes, M., & Hawranik, P. (2013). Online graduate student identity and professional skills development. *Canadian Journal of Higher Education*, 43(3), 36-55.
- Irby, D. (2017). Constructs of professionalism. In R. L. Byyny, D. S. Paauw, M. Papadakis, & S. Pfeil (Eds.), *Medical professionalism best practices: Professionalism in the modern era* (pp. 9-14). Alpha Omega Alpha Honor Medical Society.
- Johanson, M. A. (2005). Association of importance of the doctoral degree with students' perceptions and anticipated activities reflecting professionalism. *Physical Therapy*, 85(8), 766-781.
- Kalas, P., & Raisinghani, L. (2019). Assessing the impact of community-based experiential learning: The case of biology 1000 students. *International Journal of Teaching and Learning in Higher Education*, 31(2), 261-273.
- Karri, S. K. R., & Kode, S. (2011). Butterfly model: An innovative way to deliver and personalize content in the "Learning by Doing" methodology. Proceedings of *IEEE International Conference on Technology for Education*, 103-108. doi:10.1109/T4E.2011.24
- Kovarik, M. (2010). The effect of service-learning on interdisciplinary learning and curriculum reinforcement, and its application to public school environments. *International Journal for the Scholarship of Teaching and Learning*, 4(1). doi:10.20429/ijstol.2010.040111
- Kuk, H., & Holst, J. D. (2018). A dissection of experiential learning theory: Alternative approaches to reflection. *Adult Learning*, 29(4), 150-157. doi:10.1177/1045159518779138
- Kunitz, S. J. (1974). Professionalism and social control in the progressive era: The case of the Flexner Report. *Social Problems*, 22(1), 16-27.
- Larson, M. S. (1977). *The rise of professionalism: A sociological analysis*. Berkeley, CA: University of California Press.
- Levkoe, C. Z., Brail, S., & Daniere, A. (2014). Engaged pedagogy and transformative learning in graduate education: A service-learning case study. *Daniere Canadian Journal of Higher Education Revue Canadienne*, 44(3), 68-85.
- Lucas, C. M., Sherman, N. E., & Fischer, C. (2013). Higher education and nonprofit community collaboration: Innovative teaching and learning for graduate student education. *International Journal of Teaching and Learning in Higher Education* 25(2), 239-47.
- Maxwell, J. A. (2012). *Qualitative research design: An interactive approach* (Vol. 41). London, UK: Sage.
- McLaughlin C. (2010). Mentoring: What is it? How do we do it and how do we get more of it? *Health services research*, 45(3), 871-884. doi:10.1111/j.1475-6773.2010.01090.x
- Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Merriam, S. (1995). What can you tell from an N of 1? Issues of validity and reliability in qualitative research. *PAACE Journal of Lifelong Learning*, 4, 51-60.
- Mohan, A., Merle, D., Jackson, C., Lannin, J., & Nair, S. S. (2010). Professional skills in the engineering curriculum. *IEEE Transactions on Education*, 53(4), 562-571.
- Neve, H., Lloyd, H., & Collett, T. (2017). Understanding students' experiences of professionalism learning: A 'threshold' approach. *Teaching in Higher Education*, 22(1), 92-108.
- Pabst, E. (2011). Blissful blundering: Embracing deficiency and surviving graduate school. *Geographical Bulletin - Gamma Theta Upsilon*, 52(2), 92-94.

- Paglis, L. L., Green, S. G., & Bauer, T. N. (2006). Does adviser mentoring add value? A longitudinal study of mentoring and doctoral student outcomes. *Research in Higher Education, 47*(4), 451-476.
- Perrin, J. (2014). Features of engaging and empowering experiential learning programs for college students. *Journal of University Teaching & Learning Practice, 11*(2), 1-12.
- Richards, J. C. (2013). Transformations in graduate education majors' relational care in a service-learning writing course. *Reading Improvement, 50*(1), 19-29.
- Roulston, K. (2010). *Reflective interviewing: A guide to theory and practice*. London, UK: Sage.
- Saldaña, J. (2016). *The coding manual for qualitative researchers*. London, UK: Sage
- Salkind, N. J. (2010). *Encyclopedia of research design*. Thousand Oaks, CA: Sage.
- Saltmarsh, J., Janke, E. M., & Clayton, P. H. (2015). Transforming higher education through and for democratic civic engagement: A model for change. *Michigan Journal of Community Service Learning, 22*(1), 122-127.
- Schein, E. H., & Schein, E. (1978). *Career dynamics: Matching individual and organizational needs* (Vol. 24). Reading, MA: Addison-Wesley.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York, NY: Basic Books.
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York, NY: Teachers College Press.
- Stern, D. T. (2006). A framework for measuring professionalism. In D. T. Stern (Ed.), *Measuring Medical Professionalism*, (pp. 3-14). New York, NY: Oxford University Press.
- Strouse, A. W. (2015). Getting medieval on graduate education: Queering academic professionalism. *Pedagogy, 1*, 119-137.
- Sullivan, W. M. (2004). Can professionalism still be a viable ethic? *The Good Society, 13*(1), 15-20.
- Trede, F., Macklin, R., & Bridges, D. (2012). Professional identity development: A review of the higher education literature. *Studies in Higher Education, 37*(3), 365-384. doi:10.1080/03075079.2010.521237
- van Mook, W. N., de Grave, W. S., Wass, V., O'Sullivan, H., Zwaveling, J. H., Schuwirth, L. W., & van der Vleuten, C. P. (2009). Professionalism: Evolution of the concept. *European Journal of Internal Medicine, 20*(4), e81-e84.
- Wiek, A., Bernstein, M., Foley, R., Cohen, M., Forrest, N., Kuzdas, C., Kay, B., & Withycombe Keeler, L. (2016). Operationalising competencies in higher education for sustainable development. In M. Barth, G. Michelsen, M. Rieckmann, & I. Thomas (Eds.) *Handbook of higher education for sustainable development* (pp. 241-260). London, UK: Routledge.
- Wilson, A., Åkerlind, G., Walsh, B., Stevens, B., Turner, B., & Shield, A. (2013). Making professionalism meaningful to students in higher education. *Studies in Higher Education, 38*(8): 1222-1238. doi:10.1080/03075079.2013.833035
- Yin, R. K. (2014). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.
- Yusop, F. D., & Correia, A. P. (2012). The civic-minded instructional designers framework: An alternative approach to contemporary instructional designers' education in higher education. *British Journal of Educational Technology, 43*(2), 180-190. doi:10.1111/j.1467-8535.2011.01185.x

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Appendix

Pre-interview Protocol for a Study in Understanding Ways Professionalism is Promoted in Higher Education

- Interviewee's background
 - What is your:
 - Academic background, major, work experiences
 - Purpose of pursuing a higher degree
 - What is your purpose for enrolling in graduate school?
- Interviewee's current perceptions of the training program
 - What experiences do you hope to gain?
 - What are your expectations in terms of personal growth?
- What is your current understanding of professionalism in terms of the following?
 - Definition of professionalism
 - What personal indicators of yourself currently reflect professionalism?
 - What professional skills do you have?
- Personal experiences
 - Please share any personal experiences that have led to changes in how you perceive professionalism.
 - What professional skills did you develop?
- How do you hope to develop as a professional through the training program?
- In relation to the development of your professionalism, what experiences do you hope to have in the training program?

Post-interview Protocol for a Study in Understanding Ways Professionalism is Promoted in Higher Education

- What is your purpose for enrolling in graduate school?
- What is your current understanding of professionalism in terms of the following?
 - Definition of professionalism
 - What personal indicators of yourself reflect professionalism?
 - What professional skills do you have?
- Share professional experiences of the training program
 - As a result of the program, how have you developed as a professional to date?
 - As a result of the program, how have your perceptions of professionalism changed, if at all?
 - If there were changes to the development of your professionalism, what experiences did you have in the training program that promoted this change?
 - What professional skills did you develop?
- Personal experiences
 - Please share any personal experiences that have led to changes in how you perceive professionalism.
 - What professional skills did you develop?
- In what ways do you see the development of professionalism in the training program influencing your:
 - Purpose of pursuing a higher degree
 - Research