Graduate Student and Faculty Member: An Exploration of Career and Personal Decisions

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Introduction

Practice in the profession can be a foundational experience in developing professional identity, yet few graduate students have the opportunity for meaningful practice as faculty members. During the Fall of 2013, we implemented the first offering of the Rising Engineering Education Faculty Fellowship (REEFF), a collaborative venture between a research university and a teaching-focused university designed to support connections between research and practice and promote experiences in the profession for future faculty members. Specifically, two graduate students from Virginia Tech worked for a quarter as Part-Time Visiting Faculty at Rose-Hulman Institute of Technology. To evaluate the success of this program, we employed the tools of autoethnography to produce a narrative analysis of learning development from the perspective of the graduate students who participated in the program.

This exploration draws on a new theoretical framework that integrates possible-selves theory and self-determination theory[1]. Using key indicators of this framework, we analyzed blog entries that the two graduate students, or the fellows, wrote while they participated in the program. We sought to address the following question:

> *How did the fellowship experience influence the fellows' conceptions of (a) their possible selves as part of the future professoriate, and (b) how they would reach their professional goals?*

The following paper is written from multiple perspectives and thus represents multiple voices. The background and framework portion includes collaboratively written sections that include a review of stage models of human development as they relate to graduate students, a description of the REEFF program, an introduction to Kajfez's theoretical model of professional identity development, and an explanation of autoethnographic research methodology. This beginning portion of the paper is written from a common perspective among all authors with the only exception being the description of the REEFF program, which is written from the perspective of the program developers (authors Ingram and McNair). In the second half of the paper, we describe our analytical strategy, examine the experiences of the graduate students through data from blogs they produced during their fellowships, and conclude with a discussion of the students' experiences in the light of professional identity development. Because this paper is situated as an autoethnography, the second half of the paper is written from the perspective of the fellows (authors McCord and Hixson).

Background and Frameworks

Using Stage Models to Understand Graduate Student Development

The ultimate goal of the fellowship program we established was to promote experiences in the profession for graduate students (modeled loosely on the Preparing Future Faculty initiative[2]). As such, we considered carefully the anticipated experiences of the fellows and the environment they would enter. To frame this consideration, we turned to stage models that establish multiple levels of a developmental process and, in the case of the graduate students, ultimately result in students becoming peers and colleagues of their instructors and advisors. Stage models that outline phases of human development have historically been used in the social

sciences to better understand factors integral to learning (for example, psychosocial development[3], cognitive development[4], moral development[5], and motivation[6]). Frameworks specifically focused on learning in higher education include King and Kitchener's reflective judgment model[7] and Baxter-Magolda's model of self-authorship[8]; these models have been applied widely to undergraduate student development. Finally, some stage models specifically examine development of relationships between young professionals and their mentors[9], also representing these relationships as developing through multiple levels of hierarchy toward a peer relationship. Although stage models of development have been criticized for formulating stages that are overly simplistic and unilinear[10-12], teleological[10, 13], and non-measurable[13], others argue that such models provide "simplicity, elegance, and explanatory power"[12 p. 401]. Theorists employing stage models often emphasize that people do not necessarily progress through stages in a strict linear fashion[13, 14], that stages usually overlap[14], and that such frameworks can provide building blocks for more complex understanding of growth[13]. In our study, we simultaneously consider assertions from multiple models and look to rich data sources in order to better understand the various elements of the fellowship program we developed.

A key idea in our fellowship program was facilitating self-identification as both a professional and valued colleague with meaningful expertise. A long line of scholars (e.g., Dewey, Piaget, Flavell, Perry, and others) have conceived of epistemological shifts through stages in which students engage in reflection and growth[15] and eventually construct their identities as they transition into adulthood. Baxter-Magolda[16], building on Kegan's work, explored the processes of self-authorship, based on three fundamental questions: 1) who am I? 2) how do I know?, and 3) how will I make relationships? Each of these elements is critical in graduate student development toward a professional identity. King and Kitchener, in their Reflective Judgment model, posit that the process of knowing (centered on Baxter-Magolda's "how do I know?") ultimately leads to the ability to independently reason in situations of uncertainty and take responsibility for decisions[15], much like professional educators and researchers do as a matter of course in their workaday lives. While these models focus primarily on college students, they allow a better understanding of general learning processes and can provide guidelines for promoting development through program structure[14].

The graduate student experience is one of a close working relationship with the advisor, with graduate students eventually being trained up to be both colleagues of and competitors with their advisors. This process in many ways resembles the key components of Kram's Mentor Functions Model[17, 18]. Although it was originally constructed to frame mentor-mentee relationships in workplace environments, many of its phases can be applied to relationships between graduate students and advisors in university contexts. The four phases of a mentoring relationship in Kram's model, in sequential order, are initiation, cultivation, separation, and redefinition[17, 18]. As applied to the graduate student experience, initiation and cultivation are the processes of completing work tasks with concrete expectations and often coaching, and then moving on to work that results in mutual benefits to both student and advisor. The fellowship program specifically addressed the separation and redefinition components of this model, when student-advisor interactions are less frequent and a more peer-like relationship is established in which mentoring is less necessary. Nyquist and Wulff call these stages the "colleague-in-training" stage and the "junior colleague" stage (as shown in Figure 1)[9]. Simultaneous with transition of the graduate student is transition of the mentor role, from manager to model to mentor. In all cases, the end goal is for graduate students to emerge as peers and colleagues of

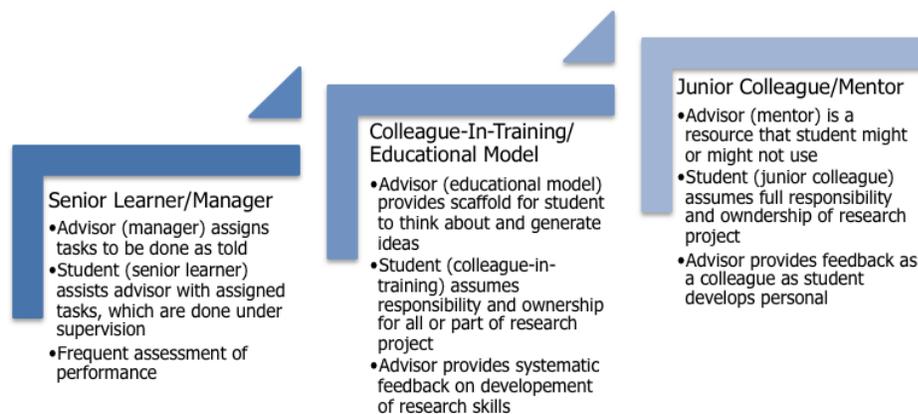their mentors, with the ability to independently meet the expectations of the next phases of their lives.

Senior Learner/Manager
- Advisor (manager) assigns tasks to be done as told
- Student (senior learner) assists advisor with assigned tasks, which are done under supervision
- Frequent assessment of performance

Colleague-In-Training/ Educational Model
- Advisor (educational model) provides scaffold for student to think about and generate ideas
- Student (colleague-in-training) assumes responsibility and ownership for all or part of research project
- Advisor provides systematic feedback on development of research skills

Junior Colleague/Mentor
- Advisor (mentor) is a resource that student might or might not use
- Student (junior colleague) assumes full responsibility and owndership of research project
- Advisor provides feedback as a colleague as student develops personal

Figure 1. Nyquist & Wulff[9] Three Phases of RA Development of Supervisory Relationships with RAs

Integral to all of these models is a power dynamic that exists in all human relationships, but especially in relationships situated within structured hierarchies such as academia. These power dynamics are characterized by rapid evolution, in contrast to other relationships, such as family and workplace relationships, where the power differential can be reduced slowly. [9, 19, 20]. In fact, the relationships that graduate students engage in during graduate school are continually shifting, both in terms of their own roles and activities as well as the evolving roles and expectations of their soon-to-be colleagues[9, 18, 20]; these shifts occur by design of graduate training programs but are nonetheless difficult to negotiate. The goal of graduate programs and fellowships like ours is to produce professionals, and thus advisors and mentors who are striving to facilitate the development of their future colleagues.

In summary, as studies of multiple stage models of development show, students develop into independent professionals through epistemological shifts that are enabled through reflective judgment and evolving relationships with supervisors and mentors. Graduate students, in particular, are developing into future colleagues of their mentors. As both Kram's and Nyquist & Wulff 's models show, the roles and expectations of supervisors and mentors must also develop along with their students for this process to work. Toward this end, the fellowship program that we describe in the next section and throughout this paper was designed to support students as they practice the roles of faculty alongside mentors who are near-peers, thus supporting the transition between the "colleague-in-training" and the "junior colleague" stages of development.

Creating a Graduate Student-to-Faculty Fellowship Program

The Rising Engineering Education Faculty fellowship (REEFF) was designed with a single objective in mind: to develop a self-sustaining fellowship program with Virginia Tech (VT) hosted at Rose-Hulman Institute of Technology (RHIT), with the vision of graduate students and faculty working together to connect research and practice. The program was originally intended to provide a laboratory for VT graduate students to practice engineering education in the classroom and for RHIT faculty to build their expertise in the discipline of

engineering education. The implemented program retained the benefits to RHIT faculty, but changed the activities of the fellows. In essence, the program took advantage of the expertise of the first applicants to re-envision their roles as researchers and consultants (e.g., teaching a class was not a requirement; instead fellows contribute their best skills). This looser model allowed RHIT to maximally benefit from the lessons of VT and created an enhanced basis for the future of the fellowship program.

The selection process was advertised as competitive to generate confidence at VT and RHIT. Baseline criteria for selecting fellows were (1) upper-level graduate students – at least third year; (2) previous teaching experience and training/mentoring; and (3) technical competence. Following a typical application process including in-person interviews, two VT students (authors McCord and Hixson) were selected as the inaugural fellows, with the financial arrangements shared by the institutions. The fellows brought their own laptops and arranged their own housing. Hiring was accomplished under the title "Part-Time Visiting Faculty" which prompted downstream actions like office assignments, key requests, being added to the institutional computing system with @rose-hulman.edu emails, and other integration details. The part-time designation also reminded all individuals concerned that the fellows were fulfilling multiple roles that included their academic progress and not just working for RHIT.

The timing of the experience was a major consideration for the fellows. Since VT is on the semester schedule, it was possible for a fellow to participate in RHIT's quarter-based schedule (focusing on Fall Term for a single term/one semester appointment) and still be able to maintain suitable progress in the fellow's Ph.D. plan of study. For this implementation, fellows applied in early spring, were selected by late spring, and arrived on the RHIT campus coincident with new faculty orientation. The fellows were placed in receptive departments and were invited to participate in the daily life of the organization. Both fellows attended the new faculty orientation activities as appropriate (e.g. the annual teaching workshop, but not the HR benefits seminar), and were introduced alongside other new staff and faculty at the annual opening day symposium. During the fellowship, the fellows attended departmental or institutional meetings, participated in Homecoming activities, ate in the faculty/staff dining room, and attended other school-sponsored activities. Because of the energy associated with the Fall term, the fellows experienced a healthy dose of campus life.

Overall, the fellowship program represented one way to support the overarching goals of both institutions with a minimum of additional infrastructure. This inaugural implementation was viewed as a starting point and not the end and final version. By being open to opportunities posed by specific situations, relationships were established that provided mentorship but also employed the fellows' competencies and provided the autonomy they needed as advanced research students preparing to enter their field as full professionals. As this program is further explored and developed, both institutions will learn about the constraints and opportunities to build sustainable future faculty programs.

Employing a New Theoretical Framework: Kajfez's Model of Professional Identity Development

The theoretical framework used in this study was developed by Kajfez[1] and is a hybrid of possible selves theory (PST) and self-determination theory (SDT). Possible-selves theory is one in which an individual in the present looks to who they do and do not want to become in the future. Self-determination theory posits that motivation is based on personal assessments of

competence in the area of interest, autonomy, and relatedness of the individual to her community[21]. As part of her work on graduate student development, Kajfez developed a model that brings PST and SDT together to explain the development of graduate teaching assistants (GTAs) in first year engineering programs[1] (Figure 2).
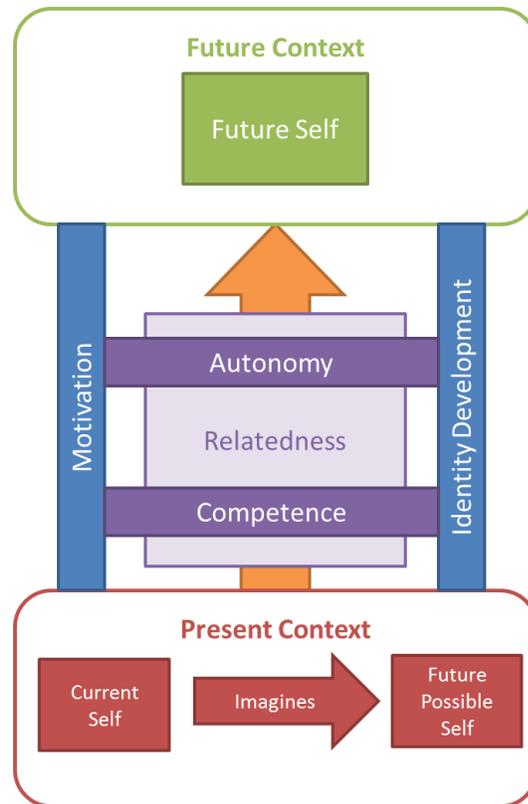

Figure 2: Kajfez's Model of Professional Identity Development

The model begins at the bottom with the present self of the individual. In the present, the individual envisions the future possible self that they either want to become or want to avoid. Autonomy and competence are represented as the rungs of a ladder, and in order to progress to their future self, an individual must 'climb the ladder' of autonomy and competence. Autonomy is defined as "experiencing choice and feeling like the initiator of one's own actions.[22]" Competence refers to "succeeding at optimally challenging tasks and being able to attain desired outcomes.[22]" The construct of relatedness is located in the background of the model because Kajfez found that the relatedness was important to individuals throughout the entire process of developing into future selves. Relatedness refers to "establishing a sense of mutual respect and reliance with others.[22]" As the model reaches the top, the individual reaches the future possible-self envisioned at the beginning of the process. As shown on the sides of the figure, both motivation and identity development occur in a complementary direction thus creating the sides of the ladder formation[1].

This model was selected because of its prior effectiveness in research pertaining to graduate student development. Kajfez found that GTA's in the first year engineering programs

had varied future career plans (different future possible selves, and thus should be provided different opportunities and responsibilities in their teaching roles to achieve these goals[23]. One major benefit to the participants of the fellowship is to experience the life of a faculty member while still being a graduate student. The model allows us to explore the development of the fellows' present self (graduate student) and future possible self (faculty member). It also helped to determine how different aspects of the fellowship program contributed to the development of autonomy, competence, and relatedness.

Employing Autoethnography as a Tool to Evaluate Learning Development

Combining the fellowship's emphasis on the transition between Nyquist & Wulff's "colleague in training" and "junior colleague" stages, the need for reflection in the process of identity development, and Kajfez's model of professional identity development, we employed autoethnography to gain insight to the factors that contributed to the REEFF fellows' professional development and identity construction. Autoenthnography developed out of the anthropological research tradition and has been situated as a way to study "the self within a larger context" [24]. It has been described as both the *process* and *product* of "critical self-study in which the researcher takes an active, scientific, and systematic view of personal experience in relation to cultural groups identified by the researcher as similar to the *self* (i.e., us) or as *others* who differ from the self (i.e., them)"[24-26]. Autoethnography is a *process* because as the researcher studies and analyzes their own experiences, meaning is made influencing future experiences and reflections. It is a *product* because autoethnography produces narrative accounts, field notes, and other tangible artifacts. Autoethnography embraces research focused on personal experiences, the researcher's revelations through lived experiences, and the ways in which these experiences were analyzed[26].

Methodologically, autoethnography integrates aspects of both autobiography, through reflecting on and writing about personal experiences, and ethnography, by participating in a community to better understand a culture[26]. This integrated approach results in the production of texts that contain "aesthetic," "evocative," and "thick" descriptions of the autobiographer's experiences[26 para. 13]. These texts should both tell the story (by being aesthetic and evocative like an autobiography) as well as enhance the reader's understanding of the culture (through ethnographically thick descriptions). Ellis and colleagues[26] list several approaches, highlighting that the approach to autoethnography depends on how the researcher contextualizes and analyzes the study. In this study, we employed an approach in which the fellows routinely wrote blog posts describing their personal fellowship experiences. These blog posts contained both personal development (autobiographic) and cultural (ethnographic) descriptions. The *process* of reflecting, making meaning, and composing blog posts as well as the final blog artifact (the *product*) align this approach with the previously discussed description of autoethnography.

Autoethnographic research has been conducted in disciplines such as sociology, communication, and education and its use continues to grow in both number and diversity[24]. Despite this fact, autoethnography has been criticized for its lack of scientific standards, subjectivity, and dependence on the researcher's credibility and ability to describe their experiences with coherence and relevance[26]. Hughes and colleagues[24] address these criticisms and concerns, as well as make a strong argument for autoethnography as empirical research by collapsing the *American Educational Research Association's Standards for Reporting on Empirical Social Science Research in AERA Publications* into four focus areas and demonstrating how autoethnography adequately addresses each of the four focus areas[27].

Methods

Participants

As previously discussed, autoethnography is a way to study the self within a larger context; therefore two members of the research and author team double as participants in the study. The fellows (McCord and Hixson) each had professional work experience upon returning to graduate school and were pursuing a doctorate in Engineering Education while concurrently participating in the REEFF. McCord held multiple master's degrees (MBA and MS in Mechanical Engineering) and Hixson was currently pursuing his master's degree in Industrial and Systems Engineering. Finally, the fellows were at different stages in their doctoral programs. McCord was collecting and analyzing dissertation data as well as exploring open faculty positions, while Hixson was earlier in the dissertation process and still exploring potential dissertation topics.

The fellows had different roles and activities during the REEFF. McCord's primary role during her fellowship was as an engineering education research consultant. Interested faculty made initial appointments, and the research consultation proceeded at McCord's direction. The vision was for McCord to guide faculty through the process of designing a project, including theoretical placement, question development, procedural plans, and data acquisition strategies. Six individual faculty members and one faculty team participated, with an average of four meetings each. McCord provided additional support to RHIT faculty through casual conversation, answering questions, recommending resources, classroom observation, and other similar activities. Hixson worked on a variety of projects, mostly related to innovation and entrepreneurship education and assessment. He contributed his entrepreneurship education expertise to a student-run conference on business start-ups, and continued the development of the Innovation Canvas. Further, he participated in several assessment activities (e.g. observations of a diversity workshop for improvement purposes). Through his placement in the institutional research, planning, and assessment office, Hixson developed interactions with multiple campus constituencies. Due to the difference in the fellows' roles and responsibilities, they associated professionally with different members of RHIT and had individualized experiences during the fellowship.

Data collection

The fellows completed narrative reflections via a blogging platform approximately once a week. The reflection content primarily focused on how the fellowship impacted their development, but also included any topics that the participant deemed relevant. The fellows were not provided reflection prompts, but instead were open to write freely around the general theme of personal and professional development. It was not uncommon for the fellows to suggest to each other that a topic from an everyday conversation or a recent experience should be turned into a reflection. Often the fellows would make note of this and reflect on the post at a later date.

Analysis

As part of the autoethnography process, the fellows were continuously analyzing their experiences and attempting to understand their meaning. For this reason data analysis occurred prior to, during, and after composing their blog posts. The analyses prior to composition of the posts were primarily done as an individual effort. The only exception to this would be the fellows' informal conversations about their lived experiences. Data analysis during and post

composition was more coordinated and included multiple rounds of coding utilizing Kajfez's five main categories as codes: autonomy, competence, relatedness, present self, and future possible self. In the first round of coding, the fellows assigned codes to the overall reflection (as opposed to individual instances within the reflection) immediately following the completion of the reflection. This can be thought of as "tagging" the entire reflection with one or more codes. The second round of coding was completed after all reflections were written and the fellows had returned to their home institution. During the second round of coding, individual instances from the text were coded. At multiple points during the second round of coding the fellows discussed and reached agreement on code definitions and the use of codes in order to establish consistency and reliability. A subset of the reflections was then coded by the program developers (Ingram and McNair) and the entire research team discussed and reached agreement on the use of the codes.

Results

In this section we discuss the findings of our analysis using Kajfez's model from Figure 2 as a guideline. To this end, we present six overall results sections: present self, future possible self, competence, autonomy, relatedness, and future self revisited. We save the merger of our findings for the discussion section that follows.

Present Self

Beginning at the foundation of Kajfez's model, instances of present self-revealed that the fellows were attempting to realize who they were and how they thought they were perceived by others. For example, in contemplating who she currently was McCord states, "I know that some people view people in graduate school as not quite being in 'real life' yet because graduate school isn't a real job. But this is a job to me…because I'm an adult (even though I don't always feel like one)." (McCord, Before Arriving) In this text, McCord is acknowledging her status as a graduate student and how that status conflicts with some individuals' views of what it means to be a professional and have a "real job". Additionally, McCord is affirming that she is in fact an adult, despite the feeling that she was being viewed by others as a child. Hixson, describing his present self as a graduate student and participant in the fellowship, states that "This was really the first time it really struck me we were 'in-between;' somewhere between graduate students and faculty members." (Hixson, Week 1) In both examples above, the fellows are contrasting their status as a graduate student with another aspect of who they currently are.

Others' perception of present self also impacted the fellows. In the following example, McCord describes how she didn't feel like a faculty member when she got to RHIT because she perceived that others didn't see her that way. "I don't feel like a faculty member. And at this point, I don't think the people that I am working with view me as a faculty member" (McCord, Week 1). Contemplating why people at RHIT may not view her as a faculty member, McCord raises the following question, "Or is it because people [think] that I am still a graduate student and so I haven't earned the title of faculty member yet?" (McCord, Week 1) Despite being given the formal title of "Part-Time Visiting Faculty," at times, especially early in the program, the fellows considered how others actually perceived them as being different from that of a faculty member.

Future Possible Self

Continuing across Kajfez's foundation future possible self, descriptions revealed that the fellows imagined and/or questioned who they desire to be in the future. Hixson, reflecting on learning from the process and not simply focusing on the final outcome, provides the following example regarding his future possible self.

> *Through all of this learning I am going through a process that supports my ability to "become a certain person or, conversely, to avoid becoming a certain person". Reflecting on this I can't help but wonder about who I am attempting to become or avoid becoming. Honestly, I struggle with this on a daily basis. The question, "Who do I want to be when I grow up?" keeps running through my head. Ha. I'm almost thirty and I'm still thinking this. Seems a little late for that don't you think?*

> - Hixson, Week 5

In this example, Hixson is unsure of his target future possible self. He does not clearly see something to aim or strive for but states that he "struggles" with determining "who to become or avoid becoming." He also implies that, considering his age, this lack of definitive future self is a negative personal characteristic. Later in this reflection he rationalizes that this questioning is actually a positive because it constantly requires him to self-reflect and learn about himself. McCord discusses her future possible self by describing the need to achieve certain goals before she will become the future self she has in her mind. She states, "I have to find a little niche at RHIT before I'll feel like a contributing member of the community" (McCord, Week 1) Here, McCord is acknowledging that one day she will be a contributing member of the community (future possible self), but before she can do that she must "find a little niche" (requirement).

Competence

As the first rung on Kafjez's ladder, competence emerged in the reflections through discussions of the fellows' skill development and the realization of competence. Through experiences such as attending the orientation teaching workshop and working alongside RHIT faculty, the fellows described situations where they were given the opportunity to develop their skills as a faculty member.

> *I will not be able to express clearly enough how valuable this workshop was/is; even considering the fact that I am not teaching this quarter. The workshop is a day and a half long and broken into sessions on various topics relevant to teaching (active learning, writing board notes, learning styles, writing learning objectives, aligning teaching with curriculum content, and a lot more). The workshop represented a very practical version of aspects of my first year as a graduate student. Fundamental core concepts in engineering education, but with a more practical component expressed by experienced higher education educators.*

> Hixson, Week 2

In the reflection above Hixson describes a skill development opportunity through the teaching workshop's ability to add practical and experienced-based insights to what he had previously learned in his graduate education.

Both fellows reflected on realizing their competence through a process of perceptions turning into demonstrations of competence. For example, McCord began with a low level of perceived competence stating, "I'm still at the point in this whole PhD process where I feel like an 'imposter.' I'm pretty much waiting for my committee to pat me on the head and say 'Nice try

Honey…but no…just no…" (McCord, Before Arriving) During her time in the REEFF program, others perceived McCord as extremely competent and she was referred to publicly as an engineering education expert. In response to others' perception of McCord as an expert she reflected, "I told him I was no expert…I was only a student" (McCord, Week 3). Despite her perceived lack of confidence, McCord's reflections show a transition in her sense of competence as a result of the REEFF program. She stated, "I know that what I am doing here is good work. I know that I'm contributing something very useful to the education community" (McCord, Week 10) This statement reveals that McCord began to realize she was competent and had something offer to the engineering education community. In this example, she had not gained actual competence (despite describing skill development elsewhere), but instead realized that she was already competent.

Autonomy

Moving up Kafjez's ladder, autonomy emerged from the reflections through the fellows' choice in activities, the general locus of control or causality, and a sense of independence. Hixson expressed autonomy more closely with choice in activities and locus of control and McCord expressed autonomy as a sense of independence. As they started their fellowship McCord and Hixson were invited to attend a new faculty teaching workshop that is provided each year for new full-time or visiting faculty members at RHIT. Below, Hixson reflects on his general feeling of autonomy (both choice in teaching activities as well as locus of control) after the workshop.

> *… I left the workshop not feeling as though I had to do exactly what they told me to do. I actually left feeling as though I had been given research-based and useful classroom principles and that I could figure out how to incorporate them into my classroom. I could be an individual, but I was now more informed than before the workshop. It wasn't a 'you must do this and do it this way' message. It was a here is something that research says and/or we've found to be useful, let's figure out how to make it useful in your classroom.*

Hixson, Week 3

In this quote, Hixson states "not feeling as though I had to do exactly what they told me" and "It wasn't a 'you must do this and do it this way' message", highlighting that he feels that he has a choice in the specific activities he can implement in his classroom. The workshop also left Hixson with a feeling that he was able to control the situation as demonstrated by "I left the workshop not feeling as though I had to do exactly what they told me to do", and "I could figure out how to incorporate them into my classroom" (Hixson, Week 3). Despite the fact that Hixson only taught one class session and McCord taught no class sessions during the REEFF, positioning the workshop at the beginning of the REEFF helped set the context that RHIT culture fostered a sense of autonomy among its faculty members.

McCord discussed autonomy more as a sense of independence. She described difficulty knowing what she should be doing, when she should be doing it, and how much she was committed to working for RHIT versus completing her own work. In one reflection she states, "I don't need to feel like I have to work 40 hours a week on the assignments I have been given [as part of REEFF]. I am just a worrier…and so…well…I worried all day" (McCord, Week 2). McCord was confused regarding the expectations of the program and how much independence she had as a fellow. As the program went on, McCord's confusion turned into confidence as she

began to understand that the lack of stringent requirements on her time was in fact the ability for her to have autonomy in her work. To this point she states, "I honestly feel like I have a lot of freedom to get done what I need to get done…And the more I am here, the more 'ok' I feel with closing my door when I need to get something done" (McCord, Week 8). This "freedom" (independence) led her to develop a sense of autonomy later stating, "I am really starting to feel comfortable in what I am doing here."

On multiple occasions in his reflections, Hixson also discussed a more general lack of autonomy, expressing his frustrations with the need to obtain a "permission slip" (i.e., his doctoral degree) before he could officially be considered a faculty member and do faculty work. His primary concern is that if he is already successfully completing the tasks as a faculty member through his previous graduate work and the REEFF, he doesn't see the need for the seemingly arbitrary title. He reflects, "If I am currently being held to standards and doing tasks that are on the caliber of faculty members, it makes me wonder why I need those three little letters after my name (PhD). If I can do these things now, why do I need the permission slip?" (Hixson, Week 3).

Relatedness

Relatedness, which Kajfez found to be important throughout the entire personal development process, was expressed in the reflections through the loss of existing communities, the gain of new community(ies), and the fellows co-occupancy in the professional and student communities. Relatedness is a predominant code throughout the entire program for both of the fellows.

For both, the loss of one community and the transition to another community is a major discussion point. McCord expresses that one of the major costs to participating in the program was the decision to leave her current community. "One of the hardest parts of going to Terre Haute for the fellowship has been leaving my friends and the ministry that I am involved in at church. I know that this experience at RHIT is going to be great. But there are also sacrifices. It seems like nothing ever comes free" (McCord, Before Arriving). Similarly, having a wife who was unable to move to Terre Haute, Hixson and his wife were faced with the decision to live separately during the program. These losses of community were an important factor in the fellows' decisions to participate in the program. This loss of community also presented itself at times during the fellows' residence time in Terre Haute, showing that the loss of community was not only an important factor in deciding to participate in the REEFF but was also a factor in the outcomes associated with the REEFF. For example, McCord spoke of an opportunity to visit her home community at the mid-point of the REEFF program. Reflecting on that time, she said, "You don't realize how much you really care about a community of people until you are separated from them" (McCord, Week 10).

Beyond losing communities, the fellows also gained and were immersed in new communities while at RHIT. Discussing relatedness in her reflection McCord states, "We really, REALLY felt like a part of the university community while we were there" (McCord, After Returning Home). This statement is a testament to how well the REFF program director and the other program leaders welcomed the fellows into the new community. Not only were the fellows treated similarly to new full-time faculty (i.e., meeting with HR and attending the teaching workshop), but they were also introduced with all off the new full-time faculty hires. This not only helped the fellows feel like valid members of the community, but it also supported the

existing communities acceptance of new members. Hixson describes being welcomed into his REEFF work group and meeting the new full-time faculty in the following excerpt.

The remainder of my morning consisted of being introduced to the other employees in the IRPA (Institutional Research, Planning, and Assessment) office. After being shown around and meeting many, many RHIT faculty and staff, I attended my first IRPA staff meeting. I am very thankful that…" "…the IRPA director, allowed me to attend this meeting as it helped me both see how IRPA operates and get to know the other members of the IRPA team.

Next, I attended a new faculty member lunch. During this time I was able to meet and introduced myself to the new full-time faculty members.

<div align="right">Hixson, Week 2</div>

The fellows also expressed their dual roles as members of the professional (faculty) and student communities. At times, especially for Hixson, this was a major topic of discussion. Hixson often referred to occupying these roles as being "in-between." The following examples elaborate further on how Hixson talks about being in-between.

This was really the first time it really struck me we were "in-between;" somewhere between graduate students and faculty members.

....

This was the second time I really felt like an "academic in-between." As is typical with these types of events, everyone introduces themselves and provides their background and where they will be working within the school/institution. 'So here it goes,' I thought. 'Of course I'll say I'll be working in the IRPA office, but do I say that I'm a current graduate student? Yes, I should and I will because it's true and I don't want to misrepresent myself as an actual faculty member. But they are treating me like a new faculty member and I do have the title of Visiting Faculty Member.' When it was my turn I introduced myself including my name, the fact that I was a third-year Ph.D. student at VT studying Engineering Education, my title as a visiting faculty member, and that I would be working on multiple assessment projects in the IRPA office. I felt it was important for everyone to know that I was in a little different boat than they were.

<div align="right">Hixson, Week 2</div>

As described above, simultaneously being in both the graduate student and faculty communities was at times a source of tension for Hixson.

Future Self Revisited

Concluding at the top of Kajfez's model, it is important to consider how the fellows' perception of future self changed throughout the program. Specifically, as the REEFF program progressed, the discussion of present self and future possible self became more difficult to separate because the way each fellow described their present self began to change. For instance, the fellows would occasionally, switch what they considered their present self and their future self. Over time, McCord's talk switched to begin discussing the faculty job at RHIT as her present self and her graduate student position as her future self. She made a mental shift to identifying with the faculty job as who she presently was stating,

"I'll be honest…it's going to be hard to go back to being 'just a graduate student' in a few weeks. I'm hoping that I can carry back this feeling of responsibility and focus with me when I go back to VT. I also hope I can take back with me the 'adult feeling' I have right now. I know that I am still a graduate student….I'm very aware of that. But when I walk down the hall here…I don't think people always view me that way. And I don't always think of myself that way. I don't feel like the peon. I feel like I belong in the room in the instructor meeting. I feel like I belong in a 'big girl' office. I feel like I have something to contribute to others when we talk about research or what happens in the classroom."

- McCord, Week 8

It also became evident that the fellows considered both the immediate future as well as the long-term future in their reflections. This was represented in the reflections as describing the future as both returning to home and graduate school (immediate future) as well as the reinforced goal of becoming a full-time faculty member or professional (long-term future).

Discussion

Our work further supports the Kajfez model as an appropriate means to explore professional identity development in graduate students. Autonomy, competence, and relatedness proved to be not only relevant to the fellows' general professional development, but also factors that changed based on both personal and cultural contexts. This requires individuals to reflect on and negotiate their personal experiences in present (and possibly future) contexts. We believe autonomy, competence, and relatedness are best thought about on an ever-changing, context-specific continuum, where individuals can continually evaluate each construct based on their experiences and understanding. Closing or lessening the gap between one's present and anticipated future levels of autonomy, competence, and relatedness should support professional identity development and the alignment of one's present and future selves.

The Kajfez model also proved effective as a tool for exploring individuals' descriptions of their present and future possible selves. Both fellows routinely reflected on and described who they were currently and their thoughts on who they would become. One particularly interesting aspect of possible selves is the future switching described in the *Future Self Revisited* section. Recall that McCord's previous future self (becoming a faculty member) was described as her present self. This is intriguing considering the relatively short length of the REEFF program. This is especially interesting when compared to the length of time McCord had been a graduate student (approximately two and a half years) and the fact that she would be returning to finish her graduate studies. Hixson also described future switching, but to a lesser extent. One possible explanation of McCord's future switching (and an area for future research) is the fact that McCord was toward the end of her doctoral studies and was more actively exploring open faculty positions (i.e., researching opening, submitting applications, discussing faculty jobs with her advisor). This contrasts with Hixson who at the time of the study had an anticipated two and a half years left as a graduate student. Another possible explanation is the level of alignment of the fellows' role with their imagined future selves. Finally, the fellows' description of both immediate (going to back graduate school) and long-term future possible selves (becoming a full-time faculty member) is evidence that many and different future possible selves are relevant in an individual's personal and professional development.

Lastly, by combining autoethnographic research methods, Kajfez's model of professional identity development, and stage models of graduate student development, our study was able to amplify the exploration of graduate student development and future faculty preparation programs. In particular, our study highlights some of the critical complexities and considerations, such as those described in both Kajfez's model and our data, during two graduate students' transitions from "colleagues-in-training" to "junior colleagues." Kajfez's model adds depth and detail to what occurs in the critical third stage of Nyquist and Wulff's model.

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