



International Journal of Leadership in Education

Theory and Practice

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/tedl20>

Perceptions Versus Reality: First Year/Early Career Faculty Expectations and Experiences through the Lens of Negentropy

John P. McAvoy Jr., Sydney Freeman Jr., Ali Carr-Chellman & Allen Kitchel

To cite this article: John P. McAvoy Jr., Sydney Freeman Jr., Ali Carr-Chellman & Allen Kitchel (2021): Perceptions Versus Reality: First Year/Early Career Faculty Expectations and Experiences through the Lens of Negentropy, International Journal of Leadership in Education, DOI: [10.1080/13603124.2021.1882703](https://doi.org/10.1080/13603124.2021.1882703)

To link to this article: <https://doi.org/10.1080/13603124.2021.1882703>



Published online: 17 Mar 2021.



Submit your article to this journal [↗](#)



Article views: 83



View related articles [↗](#)



View Crossmark data [↗](#)



Perceptions Versus Reality: First Year/Early Career Faculty Expectations and Experiences through the Lens of Negentropy

John P. McAvoy, Jr.^a, Sydney Freeman, Jr.^a, Ali Carr-Chellman^b and Allen Kitchel^c

^aDepartment of Leadership & Counseling, University of Idaho, Moscow, ID, USA; ^bDepartment of Curriculum & Instruction and Associate Dean for the College of Education, Health, and Human Services, University of Dayton, Dayton, OH, USA; ^cSchool of Education and Health Sciences, University of Idaho, Moscow, ID, USA

ABSTRACT

The first year of faculty members' time at an institution of higher education is spent learning their role and institutional culture. Quite often new faculty members need more support, guidance, and mentoring than they receive. But how can we help new faculty to create new energy (act negentropically) toward the institutional advancement? This qualitative phenomenological, exploratory case study of eight first-year and early career faculty (FYECF) provides insight into the lived experiences of this population and expands the utilization of the concept of negentropy into higher education organizations and socialization of FYECF. Through the data analysis, six major themes emerged: (1) Ambiguity, (2) Performance Expectations, (3) Collaboration, (4) Entrepreneurial/Innovation, (5) Finding a Voice, (6) Sharing Knowledge. While these themes may be anticipated in a study such as this one, it is the overlay of negentropic actions that makes this contribution unique. Implications for policy and practice are discussed for promoting a negentropic university environment.

Introduction

The first months employed in an organization constitute a critical period for both the employer and the newcomer (De Vos & Freese, 2011), of whom first-year/early-career faculty (FYECF) are no exception. Socialization, training and on-boarding all play an important role in the long-term success of the faculty member and, consequently, the organization. Many FYECF can benefit from strong mentoring and need assistance with learning the institutional climate and culture (Richardson & Alsup, 2015). In prior studies, early-career faculty have reported concerns about being able to adapt to the professoriate (Boice, 1991). These concerns are not surprising, as the primary method of preparation for a faculty position is the doctoral program, yet doctoral programs often lack formalized training that addresses the multi-faceted role that faculty must fulfill (Austin, 2002; Dewald & Walsh, 2009; Pitney, 2012). While studies across multiple fields contribute to our understanding of FYECF and their experiences transitioning to their

new roles (Austin, 2003; Boman et al., 2013; Foote, 2010), few of these studies have investigated FYECF experiences within colleges of education through the lens of negentropy (A. Carr-Chellman et al., 2019; Freeman et al., 2017). This paper presents a definition and theory of negentropy, a brief review of faculty socialization literature as related to negentropic actions, data from first-year faculty and analysis of those data through a negentropic lens.

Negentropy defined

While researchers have investigated organizational entropy (energy loss), which can be thought of as a measure of disorder in an organization (Chappell & Dewey, 2014), the application of *negentropy* to organizations is a relatively new area of study (Freeman et al., 2017). Whereas, entropy represents energy loss and organizational decay, negentropy is the inverse of this, and represents the application of new energy to maintain and move the organization forward. Negentropy is the key component of this study's conceptual framework. To understand negentropy, it is helpful to first consider entropy.

As described in our earlier work (Freeman et al., 2017) Heckman and Montera (2009) 'examined entropy, including its role within organizations. Their discussion posits a set of ideas they term entropy, which is described as a graduate decline toward disorder, randomness, and eventual collapse that applies to all human, living . . . and social systems.' (para. 2). Universities and academic departments are open systems, and through daily operations lose energy and move toward decay if no preemptive action is taken. In order to counteract energy loss, the organizational system can apply negentropic practices. According to Ho (1994), negentropy can be understood as the mathematical opposite of entropy (energy loss). Therefore, negentropy is energy-creation that counteracts energy losses that emerge as a consequence of normal organizational life. It can be further explained as the intentional or purposeful work that disrupts the natural disintegration that occurs as an organization loses energy or experiences entropy (A. Carr-Chellman et al., 2019; Freeman et al., 2017). When examining FYECF experiences through the framework of negentropy, the basic tenets outlined in previous work include negentropy as a theory that:

- Is based on systems theory including chaos theory applications to social systems.
- Employs measurements of energy losses to find potential high payoff opportunities for negentropic actions.
- Specifies opportunities for faculty to act in negentropic ways (A.A. Carr-Chellman et al., 2020) including:
 - Begin from a position of devotion to the university ideal
 - Look at the work of the university as essential to society
 - Tend to be highly empathetic
 - Understand the mission of their institution and higher education as a whole
 - Focus on applying their work in ways that advance cohesive forward motion
 - Think beyond themselves
 - Are creative and full of ideas
 - Persist and persevere
 - Understand how to grow from failure and improve incrementally

- See dysfunctional existing systems that cannot be improved, but need to be overhauled
- Embrace expansive, growth mind-sets (p. 7).
- Specifies ways that leadership must share power and facilitate effective implementation of faculty negentropic actions.
- Suggests training methods for negentropic actions.

Points to the importance of active staff work toward organizational negentropy.

The purpose of this phenomenological, exploratory case study was to examine the socialization experiences of FYECF and investigate how these experiences might be enhanced by the application of negentropy principles within the organization. The study was guided by the question: How do first-year/early-career faculty (FYECF) reflect on their first-year within a college of education, and what can we learn about negentropic faculty actions based on that experience? Thus, the paper is founded on both data from first-year faculty and applications of the theory of negentropy to that data.

Faculty socialization: a brief review

A review of the early-career faculty research literature resulted in the identification of three key considerations for understanding and implementing effective socialization efforts: organizational, faculty, and challenges.

Organizational socialization

Organizational socialization is a process by which members learn to function within the context of a given organization (Schein, 1988; Van Maanen, 1976; Van Maanen & Schein, 1977). It is a continuous and interactive process between organizations and employees (Allen & Shanock, 2013). The organizational socialization process helps workers develop common and shared values, beliefs, attitudes, behaviors, and knowledge needed to participate as an effective organizational member (Hart, 2012; Ryan & Glenn, 2004; Yilmaz & Yilmaz, 2016).

As FYECF enter the organization, they are faced with a need to develop an understanding of their role and fit within the new environment (Bauer et al., 2007). They develop routines for handling interactions and tasks and establishing relationships with the individuals that they engage (Cable & Parsons, 2006). This process takes time and may vary from one individual to the next. Peer-mentoring is one practice that can assist with organizational socialization efforts.

Tierney and Bensimon (1996) point to junior (i.e., pre-tenure) faculty as they are socialized into the institution through various interactions with colleagues, but particularly interactions with senior faculty. Informal and formal mentoring by experienced colleagues has been shown to help reduce concerns faced by FYECF (Barrett et al., 2019; Olmstead, 1993). Researchers argue these professional, collegial relationships influence workplace satisfaction (August & Waltman, 2004; Boice, 1993; Settles et al., 2006; Smart, 1990; Xu, 2008). New faculty cite various challenges in establishing themselves in a new environment, they include isolation (Luce & Murray, 1998), insufficient support, competition and politics, lack of community, and distance from their senior colleagues

(Austin & Rice, 1998). While working to overcome these challenges, new faculty desire an organizational culture of collegiality, collaboration, and mentorship (Luce & Murray, 1998). Negentropy can come into play as a force for energy creation and retention by retaining strong faculty through active and responsive mentoring. As well, mentoring can have the added benefit of better getting to know new colleagues to ensure there is a strong match between the organization and the individual, newly hired faculty member.

Faculty socialization

Faculty socialization begins in graduate school and continues through the early career stages. Socialization has been found to be important in reducing uncertainty and increasing organizational commitment (Klein et al., 2006). Weidman et al. (2001) stated that 'socialization for graduate students is the process through which individuals gain the knowledge, skills, and values necessary for successful entry into a professional career requiring an advanced level of specialized knowledge and skills' (p.iii). This is the stage of faculty socialization known as the anticipatory stage. During anticipatory socialization, 'job seekers and employers acquire and use information that affects their respective application/recruitment and employment decisions and expectations about one another' (Jablin, 2001, p. 755).

Littlefeld et al. (2015) determined that the informal interactions that doctoral students engage with, such as observation of faculty and their peers, is a critical factor that influences the socialization process of FYECF in academia. For faculty, there are two phases of socialization: initial entry and role continuance. Johnson (2001) found that FYECF may encounter barriers during the initial entry phase if senior faculty fail to assist them with the transition to their everyday roles such as advising, culture, campus partnerships, policies and procedures. Senior faculty can play an important role in the successful onboarding of new faculty, both in forms of mentoring, as well as being willing to take on service roles to free FYECF to focus their productivity efforts on research (Guarino & Borden, 2017).

'Role continuance,' begins after the individual is situated in the organization (Tierney & Rhoads, 1994). The first few years for FYECF can be the most stressful while they struggle to comprehend the culture of the organization (Crepeau et al., 1999; Tierney & Rhoads, 1994). There are several factors which affect all FYECF. These factors include loneliness and intellectual isolation, lack of collegial support, heavy workloads, and time constraints (Tierney & Rhoads, 1994). The significance of collegial support for FYECF has been emphasized within literature. Foote (2010) stressed the importance of access to supportive colleagues, particularly during periods that require emotional and intellectual support.

Challenges encountered

FYECF must learn to navigate their roles while executing and balancing the responsibilities of a faculty member and stressors, including lack of clarity, personal responsibilities, balance, and time demands require mentoring and collegial relationships to overcome. (Austin, 2003; Ambrose et al., 2005; Baldwin, 1979; Boice, 1991; Mager & Myers, 1982; Queralt, 1982). The need for alignment between the institution and the

individual has been discussed by Tosey and Smith (1999), who theorized, using a system complexity lens, that optimal performance (in our case, the socialization experience of FYECF) occurs when the institutional and individual expectations, values and capabilities are aligned to form a self-reinforcing system. Naturally, a crucial aspect FYECF seek to understand is the tenure process. Highlighting this concern, Tierney and Bensimon (1996) stated, 'Although the goal is clear – to achieve tenure – the process one should follow to achieve this goal is ambiguous' (p. 39).

Summary

The success and retention of newly hired tenure-track faculty is critical within a negentropic lens. Universities and academic departments need to ensure appropriate socialization efforts are implemented for FYECF to be engaged within and retained at their institution. Losing highly skills faculty members and the investments made in those members, including mentoring and collegial relationships is an enormous energy loss for any organization. According to Van Maanen and Schein (1979), a positive socialization experience correlates with FYECF who have higher satisfaction and productivity. Maintaining positive experiences will also ensure that well-matched faculty are retained and investments are recouped over time. This study extends the existing literature by studying FYECF in a college of education through the lens of negentropy.

Methods

Research Design

The research design chosen for this study was a qualitative phenomenological case study design (Merriam, 2009). Phenomenology has been defined as 'as an approach to research that seeks to describe the essence of a phenomenon by exploring it from the perspective of those who have experienced' (Neubauer et al., 2019, p. 91).

Phenomenology is used to examine participants' stories and provide meaning to a problem (Creswell, 2009, 2013; Johnson & Christensen, 2019). Yin (2014) defines case studies as inquiries into contemporary events which occur in real-world contexts. These inquiries are bounded by both time and place. Cases can include a program or initiative that involves a single individual or a group of individuals (Merriam, 2009). This study was bounded by the perspectives of FYECF within one college of education at a research university in the Pacific Northwest of the United States.

Sampling and data collection

A purposeful sampling method was utilized. Eight pre-tenured, FYECF – two with prior faculty experience at another institution – were solicited and agreed to participate in this study. The participants included all FYECF within the College who had been hired within a bounded two-year time period. Starks and Brown-Trinidad (2007) specify appropriate sample sizes by indicating data from eight to ten respondents with experience of the phenomenon who can deliver a thorough description of their experiences should expose the core elements of the experience. In order to protect the

identities of the participants, we do not provide demographic or other information that could expose their identities. To further protect anonymity, pseudonyms were used for the individual participants.

A semi-structured interview format was chosen (Patton, 1990). Each participant was interviewed twice, with the first interview being conducted after the participant's orientation on their first day of employment. The follow-up interview was conducted approximately 9 months after the initial interview in the spring academic semester. This allowed the participants to reflect on their first year at the institution and their experiences.

Data analysis

Case study analysis entails examining data for patterns representing overarching themes in participants' experiences (Stake, 2005). Methods used in analyzing data for case studies include categorization and interpretation of data in terms of common themes, and the synthesis of data into an overall portrait of the case (Creswell, 2013; Leedy & Ormrod, 2005). For this study, the transcripts were read twice by the lead researcher in order to become immersed within the data. The data analysis consisted of open coding through the first two rounds of analysis. During the first round, initial codes (Saldana, 2013) were identified. During the second round, the focus shifted to 'significant statements, sentences, or quotes that provided an understanding of how the participants experienced the phenomenon' (Creswell & Poth, 2007, p. 25). The participants' experiences were then examined to find meaning. Phenomenological reflection and interpretation assisted in the identification of themes. This iterative process enabled the identification of themes (Table 1).

Table 1. Emergent Themes and Theme Clusters.

Emergent Themes	Themes Clusters
Ambiguity	Unclear tenure guidelines Imbalance of time on tasks
Performance Expectations	Learn roles from observation Lack of clear expectations Balancing responsibilities Pressure within role
Collaboration	Competing interests Engaging departments and community Research with others Mentorship
Entrepreneurial/Innovation	Developing relationships Think outside the box Creativity Development of new programs Open to and attempt new things
Finding a Voice	Funding Involvement in curriculum development Navigating social hierarchy Offer different approaches
Sharing of Knowledge	Unique perspectives Advice during transition Sharing curriculum Faculty engagement

Trustworthiness and transferability

A goal of this study was to establish trustworthiness and transferable data (Lincoln & Guba, 1985). Trustworthiness was established through peer review of the data collection process and analysis of the data. Peer review is the process of an outside reviewer examining the analytic process and subsequent findings (Creswell & Creswell, 2018). The peer review was conducted by co-researchers and faculty colleagues.

Limitations

Limitations of this study include the use of self-reported data and possible memory inaccuracies of the participants. The FYECF participants were interviewed during the first month of their position and again toward the end of their first year. We were therefore asking FYECF to provide their initial thoughts on their expectations of the position and then to reflect on their first-year experience which spanned 9 months. Additionally, because the interviewer was a tenured faculty member in their own college, there may have been power issues.

Positionality statement

At the time of data collection, the first author of this manuscript was a doctoral student within the same colleges as the participants. Two of the authors were senior-level administrators in the same college as the participants while the interviewer and another author was a tenured faculty member in the same college. All of the four authors are members of the institution that was studied, and all have strong feelings of loyalty to the institution and College. There were initial concerns by some of the authors that given the close proximity and reporting relationship of the participants to two of the authors, that identifying information remain blind to the authors that were also administrators. These authors/administrators did not participate in the actual data collection nor engage in the analysis of the data; however, the second author of the paper was a tenured faculty member whom collected the data and engaged in the initial analysis of the data. The first and second author led in the subsequent analysis of the data. It is important to note that given these concerns, it is possible that the data may be limited by those concerns despite assurances of confidentiality.

The authors (excluding the first author) have written and published articles addressing the theoretical application of negentropy as a framework to support organizational advancement. This positions the authors well to use the lens of negentropy to interpret the data and make new applications for data that are quite similar to earlier studies to really extend the work to a novel space; however, it also means that authors are in favor of the potentials of negentropy as a theoretical lens and may find evidence of negentropy which might better be ascribed to other theoretical explanations.

Institutional setting

This case study was conducted within a research two (Carnegie classification) institution. This university is located in the Pacific Northwest and enrolls between 10,000 and 15,000

students annually, with various educational centers across the state. This site was selected for the researcher's access to participants for the study, its recent hiring cohort, and its boundedness as a system for the study.

Findings

Six central themes emerged from the data: (1) Ambiguity, (2) Performance Expectations, (3) Collaboration, (4) Entrepreneurial/Innovation, (5) Finding a Voice, (6) Sharing of Knowledge. These themes emerged from *invivo* data analysis, that is the themes emerged from the data. These themes contribute both to the 'entropy' within the organization and the promise of negentropy. After exploring each theme, a discussion will be presented on how faculty and their organizations can exhibit and promote negentropic behaviors to combat entropic forces, and capitalize on negentropic opportunities described by the participants.

Ambiguity

The clarity of expectations for the participants was presented as conflicting experiences. Half of the participants stated they had clear expectations of their responsibilities, while the remainder felt the contrary. One participant stated,

The number one [responsibility] is to conduct research and bring in recognition and funding to the university, while producing publications. Another one is to teach both undergraduate and help develop a graduate curriculum in my area of expertise. The other one is to mentor and advise students along the process.

During the follow-up interviews, multiple participants reiterated their lack of balance within their first year. These participants discussed the time it took to develop courses due to not having taught those classes previously. One participant suggested roles be clarified by the college according to year.

I think that would be the thing that I would structure a little differently, is saying hey, we acknowledge year one, it's going to be this. But year two and year three, we want it to be this. So, I think the growth of that type of structure is important in understanding.

From a negentropic perspective, a lack of clear expectations is an energy loss. It leads to confusion for faculty and if it is too pronounced, such ambiguous expectations can lead to separation of the faculty member from the home institution. Clarity, while not introducing new energy-producing activity can maintain the existing system with lesser energy losses.

As FYECF, none of the participants were tenured professors. Ambiguity regarding performance and tenure expectations emerged as a theme that had a profound affect on their first year. While not an unanticipated or unique finding, when viewed through the lens of negentropy, clarity is again an energy-saving strategy. One participant stated, *'Let's say the tenure track. I still don't know much about it. Even if I read it in the handbook, this doesn't mean I know much. I need to understand it from the people who have the experience.'* In the follow-up interviews, two participants now viewed tenure

requirements from the lens of what other professors are undertaking in their department to gain tenure, with one of them stating,

Yeah. I think overall; the clarity is that there is no true definition of what the tenure process is ... The clarity I think I have found is that people have an expectation based on the previous people going up [for tenure]. So, for me, my clarity is I need to pay attention to people in my department that are getting tenure and follow that line.

Multiple participants described the unclear rules, expectations and using one's resources to find information. One participant stated, *'If you only hear it from one place, it could be totally wrong, so you need to know whom to talk to and get the correct information.'* Multiple participants expressed the idea of there not being a *'clear path'* for the position and others would *'tell them what you do.'* A lack of a firm grasp on job responsibilities and the requirements for tenure could lead FYECF to focus their energy and efforts for productivity in the wrong areas, leading to potential loss of well-matched faculty over time. As well, from a negentropic standpoint, a lack of clarity in expectations creates confusion among those who are applying as well as those who are judging qualifications for tenure. The amount of energy and time spent on the tenure process itself could be improved with clearer policies in this regard. Again, while this does not represent new energy release, it does represent energy capture through clarity and maintenance.

Collaboration

Nearly all participants discussed collaboration as an incentive and viewed it as a positive aspect of their job. This was an important area of negentropy–energy creation. While many of the data points were similar to earlier studies (Cole et al., 2017; Eddy & Gaston-Gayles, 2008), collaboration is more easily understood through the lens of negentropy as energy creation. Through collaboration, interdepartmental efforts can take place, which was described by one participant as an energy-releasing job perk:

When I have the opportunity to collaborate with someone outside of the norm ... likely it would be somebody outside of the college, and they're going to support that with funds like travel or whatever, to help me make a connection with somebody else and do something. To support me going and learning anything, anywhere. That, to me, is a huge job perk.

Whereas five of the participants appreciated the individual collaboration efforts which were taking place, others discussed the need for more departmental collaboration.

I want to see collaboration. I want to see that grow. I want to see us meet the demands that our students have ... I think it would be to their benefit if we do a lot more cross-departmental talking and planning.

Here we have a bit more clear connection with negentropy where energy would be released into the department through students.

Entrepreneurial/innovation

The notion of being innovative and entrepreneurial in their work was discussed at length by participants. In earlier publications, we have distinguished between innovative, entrepreneurial, and negentropic actions (Freeman et al., 2017). One participant offered

their view on the importance of being innovative. *‘That’s the purpose of higher education, to keep thinking outside the box and thinking differently about how we learn, and people learn, and how we deliver our messages.’* One facet of the participants’ role referenced multiple times, was being involved in the recruitment and continued development of their academic programs and the importance of it. This was seen as a link to innovation and entrepreneurial activities. Most participants agreed that continued development of their academic programs – specifically through assisting with the recruitment of future students – was an exciting and important part of their role. However, one participant clearly dissented about their role in recruiting students.

I feel like as faculty; we shouldn’t be the ones who are being proactive or taking action to actively be involved in recruitment . . . we shouldn’t be the ones who are out there to bring people. It’s not part of our job.

From a negentropic standpoint, bringing more energy into an organization through recruitment and retention are important and yet adding that to an already unclear, demanding and stressful position is surely an understandable line to draw. From a negentropic lens, the reluctance of faculty to see recruitment as an essential contribution, however, is a potential space where positive energy gains could be realized. By encouraging innovative and entrepreneurial ideas around curriculum and recruitment, new faculty can be socialized into a negentropic mind-set.

During a follow-up interview, one participant shared the importance of role modeling the innovative practices within their curriculum development as they work with teachers who are expected to be innovative with their own curriculum. Additionally, one participant believed that intellectual engagement would bring an environment of innovation and stated.

When you are engaged intellectually with different people, and you’re talking about different people across all the hierarchies, this will lead to certain ideas of where you want to go, where you want to head, and would bring new ideas and innovative ideas that would promote an environment of innovation.

This sort of assessment of the energy release that happens when diverse participants are intellectually engaged is an excellent example of negentropic perspectives among FYECF. Likewise the innovations that were introduced into courses to better capture student engagement demonstrates negentropic actions.

The other side of it is figuring out in my classes new ways to engage students. We meet in an online classroom, but it can sometimes be difficult to engage students. Figuring out new ways or better ways to get them excited with discussion or assignments.

In this way, energy is released both within the student classroom/online experience, and within the experience of the faculty member who is trying something new. That energy can translate into observable innovations that other faculty may likewise adopt, or ideas that students take to their workplaces or their own future classrooms.

While many participants offered insights regarding how innovation was considered and implemented within their roles, some participants’ responses aligned with being entrepreneurial in their faculty position. One participant discussed the need for entrepreneurship in their research and to bring money to the university, by developing their own equipment and patenting products; which allowed their research to continue.

I think those are important things that, in order for me to continue to do the line of research, there needs to be money. The entrepreneurial concept allows us to bring in the money and do my research. That's what it's all about.

From a negentropic standpoint, seeing the need for incoming funding as a requisite to ongoing research can be energy creating, or it can create a negative cycle for those discipline areas that are not as fundable. Adding this to an already overwhelmed faculty member and you could create energy losses for those faculty who do not see a 'fit' at a given institution. On the other hand, opportunities for external funding are an obvious space where negentropic actions can be taken to realize great advantage to a university organization.

As a FYECF member, being innovative in one's work is not always an easy task and can be met with push back in some cases. Multiple participants described their experiences during their first year as a struggle to realize the potential of innovations and new ideas. One participant stated,

They're afraid of making that innovative new step because it's the way it's been . . . Or, as far as the intellectual engagement, there are many ways that I'm trying to do it that are pushed back with getting them involved in the actual research world and the collection of data and development of new curriculum.

This participant went on to describe how being a FYECF member can benefit the university from the lens of innovation. *'Yeah, absolutely. I would hope that being brought on that as a new faculty, what folks would look to and respect would be my fresh perspective . . .'* This participant's perspective can be seen as an important link to systemic thinking and the nature of inertia, but it also shows significant commitment to a negentropic view. Based on this data, we could argue that the perspective demonstrated here is energy creating not energy draining.

Faculty voice

Nearly all participants in this study recommended FYECF should be actively engaged in curriculum development, which helps them to build a faculty voice. One participant believed it is important for FYECF to be a part of the curriculum development conversation since they *'bring a new, different kind of perspective, different methodologies and paradigms that enrich the curriculum we're given.'* Another participant described how FYECF can be an asset (energy creator) within the curriculum development process.

They have [recently] been on the other side of teaching, the learning part of it and classroom, and they're closer to the innovation of what's happening and ways students are probably learning better. So, I think an open dialogue between the way it is, the way it was, and the way we may be able to increase over time is important.

FYECF are, then, an important source of energy in that they bring to the curriculum development moment, a fresh, well-informed perspective – a new energy to the task.

Developing a voice in curriculum making is one space where FYECF could influence their new environment and assist with their transition by feeling included and valued. A more general sense that finding one's voice is important in their socialization is mirrored in other data from this study. One participant offered a glimpse into conversations they overheard

during their first year, such as, ‘Assistant professors should be seen and not heard because they’re just trying to get their footing.’ or ‘They [assistant professors] can’t really innovate and affect change until they’re tenured, and they’re at the associate level.’ Yet, society has shifted, and we’re seeing a new breed of faculty coming in. These data contribute to an overall sense that FYECF may have of the importance of ‘being seen and not heard’ or of muting their voice. But the FYECF voice may be a very important source of organizational energy. As with the curriculum innovations, FYECF faculty voices have a freshness and often will remain more open to new ideas. Concerns for organizations that mute the voices of FYECF should be seen through the energy loss lens. If we are only to hear from those who are already socialized into the organizational structures and expectations (tenured faculty in this case), then we are likely to lose significant energy opportunities from newly hired members of our intellectual community.

The majority of participants described a structure of social hierarchy which impacted their voice. According to one participant, ‘It can be viewed as a type of trickle-down power and there is a lack of collaborative leadership throughout the whole institution. I feel my voice won’t be heard because of the system that is set.’ At the culmination of their first year, another participant continued the discussion regarding a top-down structure of power and agreed that it led to muted voices among FYECF,

There is definitely a hierarchy. It’s not a question; it’s yeah, you do. And I was front-out told in a meeting, I just had, that the people around this table have your tenure in their hands, so you may [want to] be careful.

Another participant described their feelings of power within the organization this way.

I feel that being tenured gives you some kind of strength, gives you some kind of power . . . not power in the full sense, but power to voice out . . . Being untenured makes you feel that, yes, I’m very vulnerable in that position.

Additionally, this participant discussed their experience with the process for communication as it pertained to speaking with the dean. ‘From the very beginning, we were told, when you want to talk to the dean, you have to have asked the chair first, or at least inform [them].’

This kind of hierarchy and socialization that tends to mute FYECF voices can contribute significantly to entropy as the loss of faculty voice is an energy loss. It is essential that all levels of the organization see the need to create energy and avoid energy losses as a shared occupation.

While participants described a sense of social hierarchy, multiple participants divulged their appreciation for the support they received from the college during their first year – a potential negentropic action. One participant discussed this support during their follow-up interview.

I was not expecting the support that I was greeted with, which I think comes from my previous institution, where it would’ve been squashed and shut down before I could even finish saying the course title. So, I think that’s an interesting difference between institution and cultures, and our reactions and how we operate within them.

It is important to see that for some FYECF, the experience of support for new ideas and new courses was a wonderful change of pace and highlighted the importance of people mattering within the organization. The support built mutual trust, helped counterbalance positions within the hierarchy, and empowered these faculty to pursue

their goals (Zepke, 2007), which exemplified the kind of energy release that negentropy hopes to inspire.

Sharing of knowledge

Another theme that emerged from the interviews involved sharing of best practices and learning from other faculty. Obviously, the potential for knowledge sharing has a negentropic outcome – of energy release. As often as not this is not a one-way street. While FYECF describe their positive experience of mentorship and knowledge exchange, we believe that if mentors and colleagues were likewise interviewed, we would find an exchange from both sides that create two-way energy releases. There were five participants who discussed mentorship from more seasoned faculty and the impact of knowledge sharing. One participant voiced their view on knowledge sharing this way.

I just think sharing lessons learned, and sharing the hard stuff is always helpful. . . . [To] be able to watch out for certain things, pay attention, and I would also say maybe not necessarily in August, but I don't know, November or January. To me, I really think about orientation and transition as not events but more ethos.

One method for knowledge sharing is not treating faculty differently based on their academic rank. While this is a significant and difficult culture change, it has the potential to release a good deal of energy into the organization. According to one participant, *'Here, we don't distinguish or differentiate between tenure level or even track.'* They went on to state, *'Everybody has a contribution and has a perspective to share, and we value it . . . At the very least, we give equal voice in meeting space. And that's not something I see everywhere.'* As such, from a negentropic perspective, this very healthy equity among faculty colleagues assists with an open culture that may also belie a certain amount of openness to innovation and entrepreneurial activities which are also hallmarks of negentropic actions. While these ideas individually are not new, the overlay of negentropy while combining these findings represents a unique contribution.

Discussion and implications for policy and practice

The FYECF who participated in this study have helped to illustrate the connections between their experiences and the negentropic behaviors needed within universities today. The findings from this study have implications for policy and practice and provide a basis from which to better understand how negentropy can be applied by the organization and faculty for betterment of institutions. Clearly, there are benefits for educational institutions, through their faculty, to seek to minimize energy losses (entropy) and maximize energy creation (negentropy).

The challenges identified within the findings of this study can be viewed as entropic, that is, representing a loss of energy. Most of the challenges identified were confirmatory of earlier findings in similar populations: transitions, socialization, unclear expectations, (Singe et al., 2019), role ambiguity (Gahlan & Singh, 2014), negotiating responsibilities (Cole et al., 2017), and balance and time management (Menges, 1999; Rice et al., 2000). From a negentropic perspective, energy losses from

these sources can be addressed through clearer expectations and policies, good mentoring, strong communication with new faculty and actively combating ambiguity (Judeh, 2011).

Expecting FYECF to take on the role of energy creators cannot be reasonably expected in the context of unclear and ambiguous expectations and weak mentoring. But if new faculty have opportunities within a strong organizational foundation to exhibit negentropic behaviors these seem most likely to emerge within intellectual and student engagement toward innovation, curriculum making, and scholarly research, based on this data.

There are several actions leaders, mentors, senior and junior faculty can take to encourage new faculty to engage negentropic behaviors. These actions include: knowledge sharing in mentoring, (Bowman et al., 2017; Mazerolle et al., 2017; Nottingham et al., 2019; Perry et al., 2019), transparency (Houston et al., 2006), innovative culture development, (Deshpande et al., 1993; Zeleny, 2006), leadership exploration and modeling of innovative practices (Menguc & Auh, 2006). Academic leaders and faculty need a shared belief of the importance of innovation (Simpson et al., 2006) in order to develop an organizational culture that promotes negentropic practices. These leaders need to be able to assess what their faculty members value as it is the interconnection between goals, values, and ideas that appeal to and help motivate faculty to collaborate (Uusiautti, 2013). Riege (2005) stated motivating factors can include emphasizing adequate funding, incentives, and rewards. Within an organizational culture that promotes negentropic practices, actions such as mentoring and sharing of knowledge can occur to spark innovation.

To engage in innovative practices, negentropic faculty challenge the status quo – which is a key element in creating negentropic energy to help sustain the organization – and attempt to develop a voice regarding curriculum development. Through the sharing of new ideas in regards to curriculum development, the ideas represent new information (energy releasing) (Blegen, 1968). It is essential for graduate students and FYECF to see themselves as active participants, who have both voice (Foote, 2010) and agency. By promoting and acknowledging innovative practices, academic leaders can create energy gains for the organization by encouraging negentropic behaviors from faculty members through their creation of new programs and connecting across disciplines to enhance the curriculum (A. Carr-Chellman et al., 2019). Therefore, academic leaders can promote negentropic behaviors by emphasizing cross-campus collaborations, implementation of innovative pedagogies, curriculum-making efforts, entrepreneurial initiatives, and similar ‘out of the box’ thinking within reviews for tenure and promotion to better situate the importance of negentropic work.

The concept of Negentropy can be metaphorically understood through the lens of new, innovative faculty members in that they are actively redefining what it means to be professors in the modern research university (Freeman et al., 2017). In order to diminish entropy within the academic environment and to encourage negentropic behaviors, faculty should be asked about negentropic behaviors during interviewing processes with questions such as, ‘If you were to do something really new in your area, what would it be? Do you have any ideas that would bring in new ideas or new initiatives, particularly ones that are likely to create more energy or income to the unit? What are those ideas? How do you deal with issues around ambiguity, role

Table 2. Practical application of negentropy.

Data Finding	Negentropic Lens	What FYECF can do	What leaders can do	Energy gain
Ambiguity	Energy loss due to employee departure, and difficulties getting the 'correct' answers consistently	Take an active role in learning about culture and roles	Clarify processes and policies	Gains will primarily be found in higher levels of retention, potentially in higher quality candidates over time
Performance Expectations	Confusion over tenure in particular is big energy loss and has history of significant energy losses	Work to clarify among those in the culture, engage mentoring in active and engaged ways	Clarify and detail all processes and procedures, enhance mentoring	Gains will be seen in decreased faculty and staff time spent dealing with unclear expectations, FYECF satisfaction levels, and retention
Collaboration	Significant opportunity for two-way energy gains across culture	Seek out collaborative colleagues, engage collaboration with motivations for own and institutional benefits	Formalize opportunities for collaboration among like-minded /disciplinary colleagues, encourage collaboration and recognize on P&T and annual evaluations	Gains will be seen in new ideas, culture shifts, grants and external funding, publications and presentations, overall intellectual culture will bring additional energy
Entrepreneurial/ Innovation	Energy gains may be highest here, particularly in curriculum, classroom experiences, and student recruitment	Boldly bring forth ideas from prior experiences, trust in innovations, test things out	Value ideas in meetings, encourage innovative dialogs, merit ideas in reviews.	Gains will be seen in additional enrollments, faculty retention, industry and community connections
Voice	Energy losses are significant when FYECF voice is muted, conversely gains are made when voices are heard	Boldly speak about areas of deep experience, share ideas, bring examples of muting behaviors of others to attention of leaders	Support voice development of FYECF, note on evaluations, help to instantiate good ideas from voices across the organization and help FYECF see their role in energy creation	Gains are primarily in retention, but may also bleed into enrollment gains, faculty recruitment, and innovative culture
Sharing of Knowledge	Through mentoring, collaboration, dialogue, significant energy can be released	Seek out opportunities throughout the organization (do not stop at your own borders, continue to find others who wish to share knowledge)	Encourage all faculty to be open, collaborative, mentoring, value knowledge sharing in evaluations and share successes with upper administration	Gains are in both retention and generation of new ideas as a result of new ideas generation from the sharing moment itself.

expectations and voice?' Once hired, faculty should be trained on the concept of negentropy and leaders should illustrate ways that energy increases can benefit everyone (Table 2).

Future research

This phenomenological case study was limited to FYECF within one College at one university and, therefore, the findings have limited external generalizability. Future research should explore additional insight of FYECF experiences within a larger population, at multiple institutions while maintaining the negentropic lens. Naturally, the study could be translated to focus on the hiring processes, different institutional types (e.g., community colleges) or different organizational contexts (corporations, nonprofits, k-12 etc.). The purpose of future research should be closely aligned with the need for further information within the negentropic theoretical lens.

Conclusion

Universities, like all organizations, face energy losses that devolve institutions toward chaos and disintegration. Our findings confirm earlier, similar studies and find that FYECF face concerns such as feelings of loneliness and isolation; unclear expectations of tasks; lack of collegiality; and difficulty balancing the roles of the work (Eddy & Gaston-Gayles, 2008; Gaff, 2002). What is new here is the metaphorical application of the physics construct of negentropy to these problems that have been widely reported earlier. By taking the data from FYECF and applying a negentropic framework, we are able to suggest specific ways that energy will be released into the system, thus ameliorating some of the energy losses and staving off potential chaos and disintegration.

The findings suggest it will be useful for academic leaders and faculty to understand the concept of negentropy and the impact negentropic behaviors can have on the organization. By applying negentropic principles within an organization such as hiring negentropic actors, leadership facilitation, and training for negentropic actions, academic leaders can leverage organizational transformation (A. Carr-Chellman et al., 2019). Implications for FYECF, senior faculty, and academic leaders were discussed that can have a profound positive effect on the socialization process of FYECF and growth of the organization. This research extends the literature of FYECF to broaden the application of negentropy within the higher education organizational setting.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

John P. McAvoy, Jr. is a doctoral candidate in Adult, Organizational Learning, & Leadership at the University of Idaho. His research interests include online doctoral education, fatherhood, and work-life-balance in higher education. He earned a master's degree in Student Personnel in Higher Education at the University of Florida and a master's degree in Corporate & Organizational Communication at Northeastern University. He earned his bachelor's degree at the University of Central Florida. mcavoy6793@vandals.uidaho.edu

Sydney Freeman, Jr. is an associate professor of Adult, Organizational Learning, & Leadership at the University of Idaho. He earned his Ph.D. in the Administration of Higher Education at Auburn University in Alabama. His research interests include the college and university presidency, higher

education leadership and faculty development, faculty careers, and higher education as a field of study. sfreemanjr@uidaho.edu

Ali Carr-Chellman is the dean of the School of Education and Health Sciences at the University of Dayton. She earned her Ph.D. at Indiana University and her master's and bachelor's degrees at Syracuse University. Her focus areas include gender and gaming, educational technology, innovation and change, e-learning, instructional design, systemic thinking, and negentropy.

Allen Kitchel is the associate dean of the College of Education, Health, and Human Sciences and an associate professor of Curriculum & Instruction at the University of Idaho. He also earned his Ph. D., master's and bachelor's degrees at the University of Idaho. His focus areas include professional development of CTE teachers, program and curriculum development, teaching pedagogy in business and marketing education, online pedagogy, and educational technology.

References

- Allen, D. G., & Shanock, L. R. (2013). Perceived organizational support and embeddedness as key mechanisms connecting socialization tactics to commitment and turnover among new employees. *Journal of Organizational Behavior*, 34(3), 350–369. <https://doi.org/10.1002/job.1805>
- Ambrose, S., Huston, T., & Norman, M. (2005). A qualitative method for assessing faculty satisfaction. *Research in Higher Education*, 46(7), 803–830. <https://doi.org/10.1007/s11162-004-6226-6>
- August, L., & Waltman, J. (2004). Culture, climate and contribution: Career satisfaction among female faculty. *Research in Higher Education*, 45(2), 177–192. <https://doi.org/10.1023/B:RIHE.0000015694.14358.ed>
- Austin, A. E. (2002). Preparing the next generation of faculty: Graduate school as socialization to the academic career. *The Journal of Higher Education*, 73(1), 94–122. <https://doi.org/10.1080/00221546.2002.11777132>
- Austin, A. E. (2003). Creating a bridge to the future: Preparing new faculty to face changing expectations in a shifting context. *The Review of Higher Education*, 26(2), 119–144. <https://doi.org/10.1353/rhe.2002.0031>
- Austin, A. E., & Rice, R. E. (1998). Making tenure viable: Listening to early career faculty. *American Behavioral Scientist*, 41(5), 736–754. <https://doi.org/10.1177/0002764298041005009>
- Baldwin, R. G. (1979). Adult and career development: What are the implications for faculty. In R. Edgerton (Ed.), *Current issues in higher education* (pp. 13–20). American Association for Higher Education.
- Barrett, J. L., Mazerolle, S. M., & Rizzo, J. J. (2019). Exploring experiences of organizational socialization among physical therapy and athletic training junior faculty members. *Journal of Physical Therapy Education*, 33(4), 273–281. <https://doi.org/10.1097/JTE.000000000000109>
- Bauer, T., Bodner, T., Erdogan, B., Truxillo, D., & Tucker, J. (2007). Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods. *Journal of Applied Psychology*, 92(3), 707–721. <https://doi.org/10.1037/0021-9010.92.3.707>
- Blegen, H. M. (1968). The system approach to the study of organizations. *Acta Sociologica*, 11(1–2), 12–30. <https://doi.org/10.1177/000169936801100102>
- Boice, R. (1991). New faculty as teachers. *The Journal of Higher Education*, 62(2), 150–173. <https://doi.org/10.2307/1982143>
- Boice, R. (1993). New faculty involvement for women and minorities. *Research in Higher Education*, 34(3), 291–341. <https://doi.org/10.1007/BF00991847>
- Boman, J., Yeo, M., & Matus, T. (2013). Support for new faculty members: What do they perceive they need? *Collected Essays on Learning and Teaching*, 6, 13–17. <https://doi.org/10.22329/celt.v6i0.3757>

- Bowman, T. G., Klossner, J. C., & Mazerolle, S. M. (2017). The doctor of philosophy experience of athletic trainers: Facilitators and barriers to anticipatory faculty socialization. *Journal of Athletic Training*, 52(10), 925–936. <https://doi.org/10.4085/1062-6050-52.7.01>
- Cable, D. M., & Parsons, C. K. (2006). Socialization tactics and person-organization fit. *Personnel Psychology*, 54(1), 1–23. <https://doi.org/10.1111/j.1744-6570.2001.tb00083.x>
- Carr-Chellman, A., Kitchel, A., & Freeman, S., Jr. (2019). Negentropy: Energy creating tools for organizational development. *TechTrends*, 64(2), 275–279. <https://doi.org/10.1007/s11528-019-00448-5>
- Carr-Chellman, A. A., Freeman, S., Jr., & Kitchell, A. (2020). Negentropy: Systems theory and chaos for university leadership and management. *Journal of Higher Education Management*, 35(2), 5–12. https://issuu.com/aaui10/docs/jhem_35_2__draft
- Chappell, D., & Dewey, T. G. (2014). Defining the entropy of hierarchical organizations. *Complexity, Governance & Networks*, 1(2), 41–56. <https://doi.org/10.7564/14-CGN17>
- Cole, E. R., McGowan, B. L., & Zerquera, D. D. (2017). First-year faculty of color: Narratives about entering the academy. *Equity & Excellence in Education*, 50(1), 1–12. <https://doi.org/10.1080/10665684.2016.1262300>
- Crepeau, E. B., Thibodaux, L., & Parham, D. (1999). Academic juggling act: Beginning and sustaining an academic career. *American Journal of Occupational Therapy*, 53(1), 25–30. <https://doi.org/10.5014/ajot.53.1.25>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage Publications.
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Sage Publications.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approach*. Sage Publications.
- Creswell, J. W., & Poth, C. N. (2007). *Qualitative inquiry and research method: Choosing among five approaches*. Sage Publications.
- De Vos, A., & Freese, C. (2011). Sensemaking during organizational entry: Changes in newcomer information seeking and the relationship with psychological contract fulfillment. *Journal of Occupational and Organizational Psychology*, 84(2), 288–314. <https://doi.org/10.1111/j.2044-8325.2011.02024.x>
- Deshpande, R., Farley, J. U., & Webster, F. E., Jr. (1993). Corporate culture, customer orientation and innovativeness in Japanese firms: A quadrad analysis. *Journal of Marketing*, 57(1), 23–37. <https://doi.org/10.1177/002224299305700102>
- Dewald, L., & Walsh, K. (2009). Tenure track athletic training educators: Are they being set up to fail? *Athletic Training Education Journal*, 4(4), 144–149. <https://doi.org/10.4085/1947-380X-4.4.144>
- Eddy, P. L., & Gaston-Gayles, J. L. (2008). New faculty on the block: Issues of stress and support. *Journal of Human Behavior in the Social Environment*, 17(1–2), 89–106. <https://doi.org/10.1080/10911350802168878>
- Foote, K. E. (2010). Creating a community of support for graduate students and early career academics. *Journal of Geography in Higher Education*, 34(1), 7–19. <https://doi.org/10.1080/03098260902954087>
- Freeman, S., Jr, Kitchel, A., & Carr-Chellman, A. (2017). The negentropic professor and the online curriculum. *eLearn*, 2017(11). <https://elearnmag.acm.org/archive.cfm?aid=3152716>
- Gaff, J. G. (2002). The disconnect: Graduate education and faculty realities. *Liberal Education*, 88(3), 6–13.
- Gahlan, V. S., & Singh, K. (2014). The effect of role overload and role ambiguity on job performance of IT professionals in India. *IUP Journal of Management Research*, 13(3), 37–49.
- Guarino, C. M., & Borden, V. M. (2017). Faculty service loads and gender: Are women taking care of the academic family? *Research in Higher Education*, 58(6), 672–694. <https://doi.org/10.1007/s11162-017-9454-2>
- Hart, Z. P. (2012). Message content and sources during organizational socialization. *The Journal of Business Communication*, 49(3), 191–209. <https://doi.org/10.1177/0021943612446731>

- Heckman, P. E., & Montera, V. L. (2009). School reform: The flatworm in a flat world—from entropy to renewal through Indigenous invention. *Teachers College Record*, 111(5), 1328–1351.
- Ho, M. W. (1994). What is (Schrodinger's) negentropy. *Modern Trends in BioThermoKinetics*, 3, 50–61. <https://www.i-sis.org.uk/negentr.php>
- Houston, D., Meyer, L. H., & Paewai, S. (2006). Academic staff workloads and job satisfaction: Expectations and values in academe. *Journal of Higher Education Policy and Management*, 28(1), 17–30. <https://doi.org/10.1080/13600800500283734>
- Jablin, F. M. (2001). Organizational entry, assimilation, and disengagement/exit. In F. M. Jablin, & J. Putnam (Eds.), *The new handbook of organizational communication: Advances in theory, research, and methods* (pp. 732–818). Sage Publications.
- Johnson, B. J. (2001). Faculty socialization: Lessons learned from urban Black colleges. *Urban Education*, 36(5), 630–647. <https://doi.org/10.1177/0042085901365007>
- Johnson, B. J., & Christensen, L. (2019). *Educational research, quantitative, qualitative and mixed research*. Sage Publications.
- Judeh, M. (2011). Role ambiguity and role conflict as mediators of the relationship between socialization and organizational commitment. *International Business Research*, 4(3), 171–181. <https://doi.org/10.5539/ibr.v4n3p171>
- Klein, H. J., Fan, J., & Preacher, K. J. (2006). The effects of early socialization experiences on content mastery and outcomes: A meditational approach. *Journal of Vocational Behavior*, 68(1), 96–115. <https://doi.org/10.1016/j.jvb.200502.001>
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research* (8th ed.). Pearson Custom.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- Littlefield, C. M., Taddei, L. M., & Radosh, M. E. (2015). Organic collaborative teams: The role of collaboration and peer to peer support for part-time doctoral completion. *International Journal of Doctoral Studies*, 10, 129–142. <https://doi.org/10.28945/2113>
- Luce, J. A., & Murray, J. P. (1998). New faculty's perceptions of the academic work life. *Journal of Staff, Program & Organization Development*, 15(3), 103–110.
- Mager, G. M., & Myers, B. (1982). If first impressions count: New professors' insights and problems. *Peabody Journal of Education*, 59(2), 100–106. <https://doi.org/10.1080/01619568209538359>
- Mazerolle, S. M., Bowman, T., & Klossner, J. (2017). Perceptions of tenure and promotion guidelines and criteria among athletic training doctoral students. *Internet Journal of Allied Health Sciences and Practice*, 15(3), 5. <https://nsuworks.nova.edu/ijahsp/vol15/iss3/5/>
- Menges, R. (1999). *Faculty in new jobs: A guide to settling in, becoming established, and building institutional support*. Jossey-Bass.
- Menguc, B., & Auh, S. (2006). Creating a firm-level dynamic capability through capitalizing on market orientation and innovativeness. *Journal of the Academy of Marketing Science*, 34(1), 63–73. <https://doi.org/10.1177/0092070305281090>
- Merriam, S. B. (Ed.). (2009). Qualitative case study research. In *Qualitative research: A guide to design and implementation* (pp. 39–54). Jossey-Bass.
- Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education*, 8(2), 90–97. <https://doi.org/10.1007/s40037-019-0509-2>
- Nottingham, S. L., Mazerolle, S. M., & Bowman, T. G. (2019). Junior athletic training faculty members' perceptions of doctoral education on their role transition. *Journal of Allied Health*, 48(1), 35E–42E. <https://doi.org/10.4085/1062-6050-52.7.01>
- Olmstead, M. (1993). Mentoring new faculty: Advice to department chairs. *CSWP Gazette*, 13(1), 1. <http://faculty.washington.edu/olmstd/research/Mentoring.html>
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). SAGE Publications, Inc.
- Perry, A. L., Dean, S. R., & Hilton, A. A. (2019). New faculty transitions and obstacles: An auto-ethnographic exploration. *Journal of the Professoriate*, 10(2), 43–72. <https://caarpweb.org/wp-content/uploads/2019/04/New-Faculty-Transitions-Spring-2019-PP.pdf>

- Pitney, W. A. (2012). Requiring professional athletic training programs at the post-baccalaureate level: Considerations and concerns. *Athletic Training Education Journal*, 7(1), 4–10. <https://doi.org/10.4085/070104>
- Queralt, M. (1982). The role of the mentor in the career development of university faculty. In *An annual conference of the National Association of Women Deans, Administrators, and Counselors. April, Indianapolis, Indiana (ED 216514.35 pp. MF--01)*.
- Rice, R. E., Sorcinelli, M. D., & Austin, A. E. (2000). Heeding new voices: Academic careers for a new generation. Inquiry# 7. Working Paper Series. New Pathways: Faculty Careers and Employment for the 21st Century.
- Richardson, J. C., & Alsop, J. (2015). From the classroom to the keyboard: How seven teachers created their online teacher identities. *International Review of Research in Open and Distributed Learning*, 16(1), 142–167. <https://doi.org/10.19173/irrodl.v16i1.1814>
- Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. *Journal of Knowledge Management*, 9(3), 18–35. <https://doi.org/10.1108/13673270510602746>
- Ryan, M. P., & Glenn, P. A. (2004). What do first-year students need most: Learning strategies instruction or academic socialization? *Journal of College Reading and Learning*, 34(2), 4–28. <https://doi.org/10.1080/10790195.2004.10850159>
- Saldana, J. (2013). *The coding manual for qualitative researchers*. Sage Publications.
- Schein, E. H. (1988). Organizational socialization and the profession of management. *Sloan Management Review*, 30(1), 53.
- Settles, I. H., Cortina, L. M., Malley, J., & Stewart, A. J. (2006). The climate for women in academic science: The good, the bad, and the changeable. *Psychology of Women Quarterly*, 30(1), 47–58. <https://doi.org/10.1111/j.1471-6402.2006.00261.x>
- Simpson, P. M., Siguaw, J. A., & Enz, C. A. (2006). Innovation orientation outcomes: The good and the bad. *Journal of Business Research*, 59(10–11), 1133–1141. <https://doi.org/10.1016/j.jbusres.2006.08.001>
- Singe, S. M., Nottingham, S., & Coleman, K. A. (2019). Athletic training junior faculty experiences with institutional expectations for tenure and PROMOTION. *Athletic Training Education Journal*, 14(3), 198–207. <https://doi.org/10.4085/11403198>
- Smart, J. C. (1990). A causal model of faculty turnover intentions. *Research in Higher Education*, 31(5), 405–424. <https://doi.org/10.1007/BF00992710>
- Stake, R. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 433–466). Sage Publications.
- Starks, H., & Brown-Trinidad, S. (2007). Choose your method: A comparison of phenomenology, discourse analysis, and grounded theory. *Qualitative Health Research*, 17(10), 1372–1380. <https://doi.org/10.1177/1049732307307031>
- Tierney, W. G., & Bensimon, E. M. (1996). *Promotion and tenure: Community and socialization in academe*. SUNY Press.
- Tierney, W. G., & Rhoads, R. A. (1994). *ASHE-ERIC Higher Education Report: Vol. 6. Enhancing promotion, tenure and beyond: Faculty socialization as a cultural process*. The George Washington University, School of Education and Human Development.
- Tosey, P., & Smith, P. A. (1999). Assessing the learning organization: Part 2—exploring practical assessment approaches. *The Learning Organization*, 6(3), 107–116. <https://doi.org/10.1108/09696479910270434>
- Uusiautti, S. (2013). An action-oriented perspective on caring leadership: A qualitative study of higher education administrators' positive leadership experiences. *International Journal of Leadership in Education*, 16(4), 482–496. <https://doi.org/10.1080/13603124.2013.770077>
- Van Maanen, J. (1976). Breaking in: Socialization to work. In R. Dubin (Ed.), *Handbook of work, organization and society* (pp. 67–130). Rand McNally College Pub. Co.
- Van Maanen, J., & Schein, E. H. (1979). Toward a theory of organizational socialization. In B. M. Staw (Ed.), *Research in organizational behavior* (Vol. 1, pp. 209–264). JAI Press.
- Van Maanen, J., & Schein, E. (1977). Toward a theory of organizational socialization. Working Paper No. 960–977. M.I.T., Alfred P. Sloan School of Management.

- Weidman, J. C., Twale, D. J., & Stein, E. L. (2001). *Socialization of graduate and professional students in higher education: A perilous passage? ASHE-ERIC higher education report, Volume 28, Number 3. Jossey-Bass higher and adult education series.* Jossey-Bass, Publishers, Inc.
- Xu, Y. J. (2008). Gender disparity in STEM disciplines: A study of faculty attrition and turnover intentions. *Research in Higher Education, 49*(7), 607–624. <https://doi.org/10.1007/s11162-008-9097-4>
- Yilmaz, H. U., & Yilmaz, A. (2016). The effect of organizational socialization on organizational commitment: Mediation role of psychological empowerment. *Journal of Human Sciences, 13*(3), 6204–6219. <https://doi.org/10.14687/jhs.v13i3.4206>
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Sage Publications.
- Zeleny, M. (2006). The innovation factory: Production of value-added quality and innovation. *Economics and Management, 9*(4), 58–65.
- Zepke, N. (2007). Leadership, power and activity systems in a higher education context: Will distributive leadership serve in an accountability driven world? *International Journal of Leadership in Education, 10*(3), 301–314. <https://doi.org/10.1080/13603120601181514>