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**Changing Careers:
How Newcomers Seek Information in
Three Types of Career Transitions**

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How Newcomers Seek Information in
Three Types of Career Transitions**

by

Seth Steven Frei

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Dedication

To Brynn, Amos, Noah, and Grace.

You provide the joy in my life every day.

Acknowledgements

Growing up as one of three boys, I would always hear people ask my mom, “How did you raise three wonderful boys?” Her response was always the same: “It took a village!” Of course, she was referring to the community of friends my parents had to help in raising us. As I reflect on the time I’ve spent writing this dissertation and completing my degree, I realize that I have added members to the “village,” and, in fact, the total number makes it seem more like a small city! It is through the relationships that I’ve developed in the course of my master’s and doctoral degrees that I have reached this point, and I would like to thank those people. This short list of people represents only a small number of those who got me through this phase of life, and there are many more who provided countless hours of help and support.

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were fuel that kept me going each day. You are the joy of my life, and I look forward to seeing you grow up to be strong children of the Lord. Amos, while you aren't here to see this through to the end, I will always cherish the six months we had together on this earth, and I look forward to the day we will be reunited again in heaven.

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**Changing Careers:
How Newcomers Seek Information in
Three Types of Career Transitions**

Seth Steven Frei, Ph.D.

The University of Texas at Austin, 2018

Supervisor: Keri K. Stephens

Workplace transitions are increasingly common as individuals move between jobs and occupations more frequently. Socialization literature looks at the process organizations use to help individuals meet their needs and acquire information about the new job (Kramer, 2010; Van Maanen & Schein, 1979). While many scholars study socialization, the most recent *Handbook of Organizational Communication* suggests nonentry-level newcomers are relatively unexplored (Kramer & Miller, 2014). To further understand the behaviors of nonentry-level newcomers, especially as mid-life and early-life career transitions grow more common, future research is warranted.

This dissertation focuses on the information-seeking behaviors of organizational newcomers. Using theory-based models of information seeking (Miller & Jablin, 1991; Morrison, 2002), this study seeks to further understand the behaviors of newcomers when changing careers. This study focuses on three types of career transitions: (1) Occupational (Moving from outside the typical work progression to a new occupation);

(2) Job (Changing jobs within the same field for the purpose of advancement or salary increase); and (3) Education to paid work (Transitioning from a full-time educational setting to full-time paid work).

This investigation highlights a number of significant findings in information-seeking behaviors. Across all three types of career transitions, the most common source of information is *peers*, the most common tactic is *overt*, and the most common communication medium is *the internet*. Results suggested need for control over others, intrinsic motivation, and learning orientation were significant predictors of landline phone use for information seeking. The study demonstrated coworker influence as a significant predictor of information seeking through the organizational intranet. There was also a significant difference between individual use of third parties for information seeking between job transitioners and those making transitions from education to paid work.

This study offers insights to both communication and management scholars who study socialization and information seeking, as well as human resource development practitioners. These findings contribute to the socialization literature by further describing how individuals make career transitions at various life stages. Additionally, these findings are helpful to practitioners who anticipate career transitioners into their workforce. Taken together, these results facilitate both a theoretical and practical application of newcomer socialization in these contexts.

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Chapter 1: Introduction

Individuals in the modern workforce are changing jobs and careers faster than individuals in previous generations. The Bureau of Labor Statistics (2017) recently reported that individuals born between 1957 and 1964, part of the baby boomer generation, held an average of 11.9 jobs. Individuals in the millennial generation, born between 1980 and 1995, expect to have even more jobs and careers in their lifetimes (Levit & Licina, 2011). Furthermore, the U.S. Census Bureau (2010) predicted that by 2016, one-third of the total U.S. workforce would be over 50 years old. At the same time, entry-level jobs for college graduates are declining and the age of retirement is increasing (U.S. Bureau of Labor Statistics, 2010b). Today's organizational leaders and human resource managers are at a unique crossroads of having to adapt to a greater variety of past experiences among newcomers. It is important, then, to examine how individuals transition into new employment opportunities.

Workplace transitions can occur in multiple ways depending on the circumstances of the individual (Hallqvist & Hydén, 2012; Kattenbach et al., 2014; Olson, 2014; Rigotti, Korek, & Otto, 2014). Transitions may happen within organizations as individuals move upward, downward, or laterally in the same organization (Rigotti et al., 2014); between organizations as individuals are unbounded by a particular organization (Arthur, 2008, 2014; Gubler, Arnold, & Coombs, 2014; Kattenbach et al., 2014); or from education to paid work as individuals transition into the workforce for the first time (Olson, 2014). The process of socialization has garnered the attention of organizational

scholars as transitions become ever more frequent (Kramer, 2010; Kramer & Miller, 2014; Levit & Licina, 2011).

Socialization is the process organizations use to influence and change individuals to meet organizational needs and the way individuals acquire information about how to best adjust to the organization (Kramer, 2010; Van Maanen & Schein, 1979). Although many scholars study socialization, the recently released *Handbook of Organizational Communication* suggests nonentry-level newcomers are relatively unexplored in socialization literature (Kramer & Miller, 2014). Furthermore, while several studies began to explore “mid-life” occupational transitions in the 1980s and early 1990s (e.g., Crow, 1993; Neapolitan, 1980), joining an organization “mid-life” does not *necessarily* constitute a non-entry level newcomer. Kramer and Miller (2014) propose that “understanding the similarities and unique aspects of experienced newcomers would lead to a nuanced understanding of the socialization process” (p. 541). A greater understanding of the socialization process would greatly benefit both individuals entering a new organization *and* employers hiring these employees.

To further understand non-entry level newcomers, it is important to consider how they have been studied in the past in terms of mid-life occupational changes. The term mid-life is often used, yet rarely defined because it is often unclear exactly where mid-life begins and ends. Some studies suggest that the concept of mid-life is tied to an individual’s age and is defined as beginning at around the age of 40 and ending at around the age of 60 or 65 (Lachman, 2004). Other scholars suggest that the beginning of mid-life is based on transitions into certain roles such as becoming a parent or grandparent

(Putney & Bengtson, 2001). Yet other studies suggest that major turning points in life, such as a change in job or career, define the start and end points of mid-life (Wethington, Kessler, & Pixley, 2004). It is through these major mid-life turning points that individuals often encounter situations that create uncertainty (Kramer, 1993, 1994; Trevor-Roberts, 2006).

Another differentiation sometimes overlooked in the literature is the mid-life and quarter-life. The quarter-life is the time when individuals are in their twenties and early thirties and are making early-career decisions (Atwood & Scholtz, 2008). The quarter-life is defined by “identity exploration, instability, possibility, self-focus, parental conflict, and a substantial sense of limbo” (Atwood & Scholtz, 2008, p. 234). Since the focus of this research is on individuals making career transitions at various points throughout their working life including both quarter-life and mid-life, the term *career transitions* refers to individuals in their quarter-life (in their 20s and 30s) making initial decisions about their career *and* people ranging from around 40 to 60 years old who are experiencing a career change.

By the time working individuals reach mid-life, they often have held various jobs and careers, and thus know the norms and skills required at multiple unique organizations (Sullivan, 1999). Millennials (those born between 1980 and 1995) in particular plan to have many careers over their lifetime (Levit & Licina, 2011) and are likely to encounter an increased number of entry experiences, which will result in more interactions as a workplace newcomer (Gallagher & Sias, 2009; Kramer & Miller, 2014). These interactions are often driven by a need to manage uncertainty and gather information

about the job and organization (Ashforth, Sluss, & Saks, 2007; Brashers, 2001; Miller & Jablin, 1991).

INFORMATION SEEKING IN CAREER TRANSITIONS

Information seeking is a communicative behavior (Baldwin & Hunt, 2002; Miller & Jablin, 1991; Morrison, 2002) that newcomers use to manage uncertainty in a new employment setting (Morrison, 1993; Perrot et al., 2014). In a study on age and information seeking, Finkelstein, Kulas, and Dages (2003) predicted that as individuals age, they would be less likely to ask questions directly because doing so might hurt their public image due to incurred social costs (Callister, Kramer, & Turban, 1999; Morrison, 1993; Roloff, 1981). Interestingly, however, the study found that as individuals age and gain work experience, they are often more open to asking the required questions to get the information they need. Similarly, research by Van Vianen, Dalhoeven, and De Pater (2011) found that as employees age, and become more experienced, they are more willing to participate in training and learn how to do their job in the organization if their supervisors encourage organizational learning. These studies on employee experience shed light on the complexities involved in research focusing on individuals seeking information as employees mature. Nevertheless, there remains a need for additional research exploring the relationship between employee experience and information-seeking behaviors. Kramer and Miller (2014) suggest expanding our understanding of non-entry-level newcomers as they become more common in the workplace.

This dissertation seeks to further investigate the information-seeking behaviors of individuals making mid-life career transitions. Using theory-based models of information seeking (Miller & Jablin, 1991; Morrison, 2002), this study will help uncover how individuals seek information as they make career transitions. Through a better understanding of information-seeking behaviors, this research will contribute to the socialization and information-seeking literature.

Technology and Information Seeking

When transitioning to a new organization, employees often use advanced communication and information technologies to gather information (Flanagin & Waldeck, 2004). Scholars define Information and Communication Technologies (ICTs) in various ways. Flanagin and Waldeck (2004) use Huber's (1990) definition of ICTs: "devices that transmit, manipulate, analyze, or exploit information; in which a computer processes information integral to the user's communication or decision task..." (p. 238). Other scholars emphasize the importance of human relationships in ICTs, such as Stephens' (2007) definition, in which "ICTs include technologies that handle information and enable communication among human actors" (p. 488). In the *Handbook of Organizational Communication*, Rice and Leonardi (2014) state that ICTs "generally [refer] to the devices, applications, media, associated hardware and software that receive and distribute, process and store, retrieve and analyze, digital information, between people and machines (as information) or among people (as communication)" (p. 426).

This dissertation uses a combination of these definitions to consider ICTs as *devices and media used to send and receive information in order to enable human communication*.

Being prevalent in most organizations, ICTs are often a source of information for newcomers. They can be used to connect newcomers to electronic information or to help in making connections between employees (Rice & Leonardi, 2014). Flanagin and Waldeck (2004) argue for expanded research on newcomer uses of technologies during socialization. As new forms of media are introduced to the workplace, technology continues to shape and influence the socialization process (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007). As such, technology will be a central focus of this dissertation to make clear connections between ICTs and information seeking.

CAREER TRANSITION TYPES

There are different types of career transitions that individuals make as they proceed through their working years. In the socialization literature, Kramer (2010) suggests three common individual transitions: job promotions (i.e., upward movement within an organization), job transfers (i.e., transferring between departments or changing physical buildings within an organization), and career plateaus (i.e., stagnation in the organizational hierarchy). The career change is another type of career transition often studied (Carless & Arnup, 2011). The multiplicity of terms used within the career change literature to describe transitions in the workplace can be confusing if not clearly defined. For example, the terms “career” and “occupation” are often used interchangeably by

scholars in the change and transition literature (e.g., Blau, 2007; Carless & Arnup, 2011; Higgins, 2001; Neapolitan, 1980).

In this dissertation, the term *career transition* is used to describe changes throughout an individual's years of employment. There are three types of career transitions individuals make: occupational, job, and education to paid work. Occupational transitions are often outside the typical work progression to a new occupation for the purpose of greater emotional investment or fulfillment of personal goals (Baruch, 2004; Douglas T. Hall & Associates, 1996; Pixley, 2009; Rhodes & Doering, 1983). Job transitions are typically within the same field for the purpose of advancement or increases in income (Pixley, 2009). Education to paid work transitions are from a university or educational setting to full-time paid employment. This study focuses on occupational, job, and education to paid work transitions that occur as individuals leave one organization and join a new organization.

RESEARCH CONTRIBUTIONS

In addition to contributing to socialization, information seeking, and ICT literature by investigating career transitions, this study also offers several practical benefits for individuals and organizations alike. For individuals considering a career transition either in the early-career period or in mid-life, this study will clarify ways to seek information in their new organizations while making the transition. Because proactive behaviors, such as information seeking, are particularly important for

newcomers, this study will further define the types of proactive behaviors in which a newcomer might engage (Cooper-Thomas, Paterson, Stadler, & Saks, 2014).

On the organizational level, this study will contribute to a better understanding of the information seeking preferences of newcomers, which might lead to adjusted socialization and training techniques. Cooper-Thomas et al. (2014) suggested the importance of experienced employees responding positively to the proactive behaviors of employees in the workplace. By understanding the mediums of communication and the technologies used by newcomers, organizations will be able to match the correct information with the correct method of delivery to make the greatest impact.

DISSERTATION OVERVIEW

To accomplish the twofold goal of providing theoretical and practical contributions, I review the relevant literature highlighting the socialization process in Chapter Two. This chapter focuses on research about various types of career transitions, followed by a review of information-seeking literature and two models depicting information seeking by newcomers. Finally, I propose a set of research questions and hypotheses based on relationships suggested in these models. In Chapter Three, I explain the design and methodology of the research including the collection method and scales used. Chapter Four covers the analysis procedures and the results of the study. The final chapter provides a discussion of the results. This chapter includes the limitations, and importantly, the directions I hope to take this research upon completion. Through this research on the process of individuals making transitions, I will further develop practices

to improve the process of information seeking and better socialize newcomers undertaking transitions.

Chapter 2: Literature Review

SOCIALIZATION

Joining an organization is a major transition in individuals' lives, which requires them to learn new organizational norms, adjust routines, and develop new relationships. Because employees often have multiple jobs and careers over the course of their lifetimes, there is a good chance they will experience several organizational entries and exits during their working years (Kramer & Miller, 2014). During these transitions, individuals are required to learn the organizational norms and culture, including the communication culture (Jablin, 2001).

Because communication plays an important role in the socialization process, organizational communication scholars often conduct socialization research (Ashforth, Sluss, & Harrison, 2007; Jablin, 2001; Kramer, 2010; Kramer & Miller, 2014). To explain the process of organizational entry, it is important to conceptualize socialization and compare it to other similar and common terms. Due to the multidisciplinary nature of this field, researchers often use inconsistent terminology to describe the process. Scholars have described the process of entering an organization with terms like assimilation (Jablin, 2001; Kramer, 2010), onboarding (Snell, 2006), and integration (Teboul & Cole, 2005). Though these terms help to describe aspects of the socialization process, the term socialization is generally accepted and used across disciplines to describe the process of organizational entry (e.g., Ashforth, Sluss, & Harrison, 2007; Berkelaar, 2013; Korte, 2009). Most scholars outside communication use the term

socialization as a broader term including the overall process of entering an organization (Kramer & Miller, 2014). Drawing on these commonly accepted definitions, this dissertation considers socialization to be *the mutual influence of organizations and individuals from early stages of learning about the industry through entry into the organization, with the process influencing the communication messages that are shared between newcomers and organizational members* (Kramer & Miller, 2014).

Phases of Socialization

Organizational communication scholars take many approaches to study the role of communication in socialization at its various phases. Seminal works on organizational socialization propose a phase model (e.g., Feldman, 1976; Jablin, 1984, 1987; Porter, Lawler, & Hackman, 1975; Van Maanen, 1975), in which individuals proceed through stages as they explore career options, learn about specific organizations, and begin working. Phase models are useful because they provide a prescriptive approach to the process an employee and employer go through during the initial organizational interaction (Ashforth, Sluss, & Harrison, 2007). According to Kramer and Miller (2014), “In the 1980s, Jablin (1984) brought the study of socialization into the burgeoning field of organizational communication and focused on how communication was the means by which individuals navigated the assimilation process” (p. 526) and proposed one such model. Jablin (1987) proposed a four-phase model to scholars of organizational communication: anticipatory socialization, encounter, metamorphosis, and exit. It is

around these four general phases that many scholars begin their research of entry into organizations.

Though many scholars view phase models as a basis for socialization research, phase models have also been criticized. One problem is they might inaccurately portray the socialization processes as a linear progression, when in reality, the process is more fluid (Kramer, 2010). Though Jablin (1987) clearly outlined different phases in the model, Kramer and Miller (2014) suggest that he saw the model's phases as "fluid and overlapping, rather than a set of linear, distinct phases" (p. 526). This is congruent with Jones (1986) and Feldman's (1981) conclusions that there is overlap between phases, and socialization does not always occur in the same sequence. Though the phase models might be an oversimplification of a complex process, they do provide scholars with a visual representation that helps to form the foundation for socialization research. As Wanous (1992) stated, "Even if research has yet to establish the precise sequence of events, it is probably correct to consider the issues raised by the [phase] models to be relevant for most newcomers at some point early on in their careers with an organization" (p. 210). In summary, even as the models might vary in sequence, they continue to provide a framework to describe the challenges encountered by newcomers and employers (Ashforth, Sluss, & Harrison, 2007), and it is important to understand each piece of the foundation before proceeding.

Vocational Anticipatory Socialization

The process of anticipatory socialization leading to an individual's career in an organization has two parts: vocational anticipatory socialization and organizational anticipatory socialization (Jablin, 2001). During vocational anticipatory socialization, beginning in childhood and spanning through young adulthood, individuals gather information about occupations and determine the direction of their career (Osipow, 1983). Jablin (2001) suggests individuals acquire vocational information through five primary sources during vocational anticipatory socialization: family, education, part-time jobs, friends, and the media. While socialization researchers have focused on many of these sources within vocational anticipatory socialization, a majority of the research focuses on children and adolescents in their developmental years (i.e., Jahn & Myers, 2014; Levine & Hoffner, 2006; Lucas, 2011), and few studies consider vocational anticipatory socialization beyond the adolescent years.

Referring to Jablin's (2001) concept of "part-time jobs" as a source of information, Kramer (2010) suggests "the term shows bias toward individuals seeking their first career jobs after finishing their formal education. As such, it fails to recognize that individuals change careers frequently through their lives..." (p. 32). Instead, he suggests the term previous organizational experience is less partial in describing the vocational lessons learned from past jobs. A meta-analysis by Saks, Uggerslev, and Fassina (2007) demonstrated that there is a stronger relationship between organizational socialization tactics and positive outcomes for recent graduates compared to newcomers with prior work experience. One possible reason for this difference might be the

differences in adjustment practices used by newcomers that have prior organizational experience (Cooper-Thomas, Anderson, & Cash, 2011). In other words, research and practice often have a bias toward tactics that work well for individuals entering the workplace as recent graduates, but following Kramer and Miller's (2014) suggestion, we should further explore newcomers with prior experience and the tactics that work well for them. By taking a viewpoint that expands vocational anticipatory socialization to encompass experiences beyond the childhood and adolescent years, there are more opportunities to research individuals making career transitions at various life stages.

Organizational Anticipatory Socialization

Vocational learning and decisions are often a life-long process; however, organizational anticipatory socialization occurs much faster (Kramer, 2010). Organizational anticipatory socialization follows an individual's decision to accept a position in a new organization. In this phase individuals learn about the specific organization they will be joining and they seek more specific information about the position. While Feldman (1976) suggests anticipatory (both organizational and vocational) socialization includes the process of *all learning* before entering the organization, Jablin (2001) suggests organizational anticipatory socialization as a unique part of the process where individuals learn about the specific organization. Feldman (1976) suggests an important part of this process is the "transmitting, receiving, and evaluating information with prospective employers – and making decisions about employment" (p. 434). Further, Feldman (1976) offers two variables to measure success

in organizational anticipatory socialization: realism, which is the extent to which individuals have an accurate picture of the organization through the information shared; and congruence, which is the extent to which organizational resources are a match for the individuals' needs and skills.

Starting with the recruitment process, organizations send messages to potential applicants that range in scope from general and broad to specific and detailed (Collins, 2007). Job seekers typically seek information through organizational literature (e.g., website, printed brochures, news articles) and interpersonal interactions (e.g., employment interviews, other employees, teachers) (Jablin, 2001). Through various interactions with an organization prior to joining, individuals begin to identify with and negotiate membership in the organization (Stephens & Dailey, 2012). Organizations also have the opportunity to communicate with job seekers interested in their organization through recruitment efforts, application processes, and interviews.

After the organization and the individual make the mutual decision to begin employment, a brief period of pre-entry occurs (Jablin, 2001). While this period of socialization is under-studied (Jablin, 2001; Kramer, 2010), there is usually some communication between the newcomer and employees in the organization. There are also conversations among current members of the organization who are trying to make sense of the new hire (Sutton & Louis, 1984). This brief period culminates in the first day of employment, when the newcomer transitions into the organization.

Encounter

In transitioning from anticipatory socialization to organizational encounter, the individual begins to experience the organization through daily work. This phase begins when the newcomer starts his or her first day of employment at the organization. During organizational encounter, there are often strategies undertaken by the organization to influence newcomers and introduce them to the organization (Van Maanen & Schein, 1979). For example, scholars demonstrated the positive relationship between communication during the socialization process and organizational commitment (Madlock & Chory, 2013; Madlock & Horan, 2009). Further, the relationships created during the socialization process are affected through membership negotiations, which might occur between newcomers and experienced members of the organization (Scott & Myers, 2010).

During organizational encounter, the individual participates in a series of socialization strategies. Van Maanen and Schein (1979) propose six dichotomous tactics that organizations use to influence newcomers: collective/individual, formal/informal, sequential/random, fixed/variable, serial/disjunctive, and investiture/divestiture. Each of these tactics is not mutually exclusive, instead relying upon each other and being used in conjunction through orientation and training programs. The tactics that an organization uses in the encounter phase translate to the roles newcomers take on in the organization (Kramer, 2010). It is through these opportunities that occur early in one's time with an organization that they begin to learn how an organization functions and the skills required for their job.

Through the encounter process, the organization has a significant influence on the newcomer, but there are also efforts made by the individual to change the organization to meet personal needs (Jablin, 1984; Kramer & Miller, 2014). Jablin (2001) suggests that much research, including seminal work by Van Maanen and Schein (1979), implies a one-way model where organizations socialize newcomers. Jablin (2001) suggests scholars should take an interactional view in which the newcomer participates actively in order for socialization to be successful. This creates two dimensions to the process: “(1) The organization’s attempts at “socializing” the new employee to acceptable organizational behaviors and attitudes (dominant schemas), and (2) the recruit’s efforts to negotiate or “individualize” his or her role in the organization” (Jablin, 1982, p. 256). The process of individualization might range from small actions like personalizing a workspace to larger actions like negotiating time off or a modified work schedule (Kramer, 2010). Based on the assumption that newcomers are active in the socialization process through individualization, Jablin (2001) notes a rise in scholarly attention toward information seeking during career transitions.

CAREER TRANSITIONS

According to Berkelaar (2013), the interconnectedness of current workforce conditions should cause scholars to “re-think socialization from lenses other than the single, upwardly mobile career” (p. 139). Thus, as individuals make more career transitions (and not always upward), they will go through the socialization process in different ways from workers of past generations. In studying career transitions, there are

three important dimensions to consider: voluntary/involuntary (Hallqvist & Hydén, 2014; Price, 1977), within organizations/between organizations (Arthur, 2014; Rigotti et al., 2014), and the type of transition (e.g., occupational change, job change, education to paid work; Pixley, 2009; Rhodes & Doering, 1983).

The turnover that occurs as individuals make transitions between careers can be either voluntary or involuntary (Price, 1977). That is, they can choose to make the transition willingly (i.e., desire a new job, dissatisfied with current position, seek higher compensation) or unwillingly (i.e., downsizing, external family responsibility). While much socialization research focuses on voluntary upward career transitions, Tan and Kramer (2012) suggested individuals have strategies they use to make voluntary downward career changes to less socially-prestigious occupations. Another potentially voluntary or involuntary career change occurs when new mothers (and increasingly fathers) take an employment leave for the birth of a child. Maternity leave causes many women to experience career changes and role negotiations (Miller, Jablin, Casey, Lamphear-Van Horn, & Ethington, 1996). When individuals take time off to raise children, they often return to a workplace that has changed considerably through technology, different organizational norms, and new processes. This re-entry into the workplace often requires the individual to re-engage in many aspects of the organizational encounter stage of socialization (Miller et al., 1996).

It is also important to consider the differences concerning changes within the organization and between organizations. Individuals often make transitions within the same organization when they experience a job promotion (Hill, 2003; Kramer & Noland,

1999) or are transferred to another department within the company (Kramer, 1989, 1993, 1994). Further, Kramer (2010) suggests that career plateaus are a type of transition, not in position, but rather in attitude, due to a lack of future upward movement in the organization. When considering transitions between organizations, scholars often refer to DeFillippi and Arthur's (1994) concept of a boundaryless career (e.g., Baruch, 2004; Carless & Arnup, 2011). Through boundaryless careers, individuals explore job opportunities beyond those offered in single employment settings (Arthur, 2014; DeFillippi & Arthur, 1994).

The final dimension to consider is the difference between the types of transitions. Career transition literature generally considers career movement only within the workplace, yet there are multiple types of transitions to consider including job transitions, occupational transitions, and education to paid work transitions. In the career literature, one of the most commonly accepted definitions of a career is “the evolving sequence of a person’s work experience over time” (Arthur, Hall, & Lawrence, 1989b, p. 8). Inkson (2006) further expounds on careers, saying that occupations and jobs are encompassed within the career of an individual. Though the terms “career changes” and “job changes” are often used interchangeably, both individuals in the workplace (Pixley, 2009), and scholars view the terms as distinct (Baruch, 2004; Cheney, Lair, Ritz, & Kendall, 2010; Clair, 1996; Douglas T. Hall & Associates, 1996; Rhodes & Doering, 1983). This study uses Rhodes and Doering’s (1983) definition of occupational transitions as the “movement to a new occupation that is not part of a typical career progression” (p. 631).

While job seekers might identify compensation as a primary motivator for new employment (Stringer, Didham, & Theivananthampillai, 2011), those looking for an occupational move will likely have other considerations. Pixley (2009) identifies five reasons people keep their jobs and careers. The factors include: emotional investment (the extent to which they care about, or are personally invested in their work); time investment (the amount of time they invest in education and hours spent doing the work); advancement (viewing their work as leading them to increased growth and responsibility); income amount (occupations viewed as careers typically pay more); income motivation (doing work primarily for income or for other reasons). Career changers thus require new fundamental skills, routines, work environments and training (Feldman & Ng, 2007), and although individuals are making more career changes, recent research lacks in understanding individuals going through this process.

Making Career Transitions

The concept of a career has been subject to significant transformation over the past few decades (Inkson, 2006). For many years, careers were rooted in the responsibility of individuals, focusing on their work over time (Arthur, Hall, & Lawrence, 1989a). In the 1990s and early 2000s there was a significant shift to the focus on the organization and how *it* shapes and develops the careers of individuals. This is demonstrated by professor of management and expert on careers, Douglas T. Hall, who wrote a book appropriately titled *The Career is Dead—Long Live the Career* (Douglas T. Hall & Associates, 1996). Recently, however, the view has shifted back to a perspective

that it is individuals who control their careers (Baruch, 2004). According to Baruch (2004), we now must make new models of careers to align with upward and downward movement as well as cross-organizational transitions.

In communication studies, past research investigated job transfers within organizations and created a model based on the phases of socialization to depict the phases—the loosening phase, transition phase, and tightening phase—of the job transfer process (Kramer, 1989). In a follow-up article, Kramer (1993) incorporated concepts of uncertainty reduction to the job transfer process to focus on the communication experiences that impact job transferees. Using these models of the job transfer process, studies have focused on communication during job promotions (Kramer & Noland, 1999), organizational downsizing (Armstrong-Stassen, 2003), and job transfers in specific contexts, such as healthcare (Wells, Barnard, Mason, Ames, & Minnen, 1998). Though many of these studies focus on transitions within organizations, they often do not consider another important type of employee transition: those where employees make larger career or occupational transitions.

Research focused specifically on employees making career changes is limited, despite increased turnover and fluctuating unemployment rates. Barclay, Chung, and Stoltz (2011) focused on the career changes individuals go through during middle adulthood. They found individuals go through stages of action/establishment and maintenance within the organization. In making these moves, individuals have a variety of reasons for making mid-life career changes, including aligning a career more closely with personality and values, improving work-life balance, or salary benefits (Richardson,

Watt, & Tysvaer, 2007; Ruffolo, 1993). Though individuals often have communication-based reasons for making mid-life career changes (i.e., improving work-life balance, difference of communication style with supervisor) and they follow stages similar to those in the socialization literature, communication scholars have often overlooked this group of workers.

One attempt to investigate mid-life changes was conducted by Tan and Kramer (2012), who investigated downward career changes where individuals change careers to something with lower status and lower pay. In this study, the researchers focused on the communication during the process and suggested three phases: decision making, announcement, and new career. It is through these phases that individuals negotiate the change in social identity they experience as they make a major life change.

Transitioning into Paid Work

Occupational and job transitions are one of the important transitions individuals make throughout their working years, but another important aspect of career transitions relates to recent college graduates as compared to experienced employees (Avolio, Waldman, & McDaniel, 1990). Some human resource managers see older workers as the most experienced and skilled individuals in the workforce (Conen, Henkens, & Schippers, 2011; Tillsely & Taylor, 2001), whereas others see college graduates with a fresh knowledge of skills and current understanding of trends in the industry as a benefit to the organization (Clune & Gramling, 2012). Recent college graduates provide a large pool of available workers for employers and represent individuals making education to

paid work transitions. In the socialization literature, Kramer and Miller (2014) say there are a large number of studies focusing on the entry experiences of recent college graduates. This leaves ample opportunities to compare the entry experiences of individuals going through different types of transitions.

UNCERTAINTY MANAGEMENT THROUGH INFORMATION SEEKING

As newcomers enter the workplace for the first time, they experience uncertainty about their jobs (Miller & Jablin, 1991; Morrison, 1995; Teboul, 1994). Miller and Jablin (1991) suggest three primary types of uncertainty: referent uncertainty (uncertainty about the nature and functions of one's job); appraisal uncertainty (concerns about one's ability to successfully complete the job); and relational uncertainty (uncertainty about how one will fit into the social setting of the workplace and the relationships the newcomer might form). One area of particular interest for many communication scholars is the uncertainty involved in the socialization process (Kramer & Miller, 2014). When employees enter an organization, they often learn the formal and informal requirements of the new organization, which can create high levels of uncertainty (Miller & Jablin, 1991).

Much of the research on uncertainty during socialization is guided by uncertainty reduction theory (Berger & Calabrese, 1975) and uncertainty management theory (Brashers, 2001). While Brashers (2001) used uncertainty reduction theory as a framework, he posited that rather than assuming everyone wants to reduce their uncertainty, individuals experience and appraise uncertain events which lead to individual decisions. These decisions might lead to information seeking because

individuals want to reduce uncertainty, but they might also avoid uncertainty reduction, choosing to maintain ambiguity. For example, a newcomer might choose to maintain ambiguity if they are overwhelmed with the new job or they do not perceive the potential information as pertinent to their job.

Also included in the appraisals proposed by Brashers (2001) are evaluations of the risks involved with reducing uncertainty. Communication inherently has social costs (Miller, 1996; Miller & Jablin, 1991), such as potential for embarrassment or the perception of wasting time. Minimizing those social costs might be preferred in workplace information-seeking (Kramer, 1999), especially when the worker is a newcomer and is building their reputation among coworkers.

Research has explored uncertainty management among individuals proactively seeking information about an organization (Ashford & Black, 1996) and individuals leaving an organization (Kramer, 1993). One application of uncertainty management is to transferees, who move to a different physical location within the same organization (Kramer, 1993). Though these employees are still a part of the same organization, there remains a high degree of uncertainty related to specific aspects of the new location. When individuals experience uncertainty, Miller and Jablin (1991) suggest they try to make sense of the uncertainty-producing event through information-seeking tactics. For instance, individuals may ask questions in hopes of determining what is required of them on the job, if they are completing their work successfully, and the nature of their relationships with other workers.

When individuals go through the socialization process, information seeking is one of the most common proactive behaviors in learning about a job, role, work group, and the organization (Morrison, 1993; Saks, Gruman, & Cooper-Thomas, 2011). In fact, when uncertainty reduction theory was originally proposed, Berger and Calabrese (1975) suggested “high levels of uncertainty cause increases in information-seeking behavior” (p. 103). These information-seeking tactics used to reduce uncertainty are either direct (e.g., asking direct questions) or indirect (e.g., making observations, using third parties, or asking indirect questions). Information seeking often leads to greater role clarity and social acceptance in the organization, which can lead to greater job satisfaction overall (Bauer et al., 2007). Saks et al. (2011) focused specifically on proactive behaviors, such as information seeking, and found that those who more frequently engage in this type of behavior are more likely to receive positive outcomes (e.g., the information or feedback they desire). How individuals go about seeking information depends on the anticipated social costs associated with perceived benefits (Miller, 1996). If individuals feel the potential for embarrassment in seeking information, they might decide to avoid the potential negative social implications and remain uncertain (Brashers, 2001). Because individuals making career transitions during the middle of their career have previous work experience, their uncertainties and strategies for seeking information may differ from those of individuals entering the workforce for the first time. By further exploring uncertainty management and information-seeking techniques for employees that transition to new jobs and careers, scholars will better understand this group of workers. To achieve this goal, I propose the following research question:

RQ1: Which information-seeking tactics and sources do transitioning professionals use most frequently?

It is often in the times of transition and entry into a new organization that individuals, especially those making mid-life transitions, must manage uncertainty by appraising events surrounding the employment situation (Brashers, 2001). When individuals have higher levels of uncertainty tolerance, they are more likely to change occupations, despite possible job security in their current occupation (Otto, Dette-Hagenmeyer, & Dalbert, 2010). One way of reducing uncertainty and adjusting newcomers to a new organization is through some type of formal training during the socialization process (Saks, 1996). Workplace training helps organizations teach employees the skills they will need to successfully navigate the workplace. When individuals move to a new organization, they often attend some type of training to help newcomers adjust to the position (Saks & Gruman, 2014). Though the information and skills learned in training should *ideally* be sufficient for everyone entering the organization, employees that make transitions often need more support in the transition and continue to seek information from other sources in the new work environment (Morrison, 2002). One increasingly popular way for new employees to seek information is through workplace technologies.

TECHNOLOGY IN INFORMATION SEEKING

How to use technology during information seeking is one decision newcomers must make. Flanagin and Waldeck (2004) suggest that “advanced communication and

information technologies have profoundly influenced the means by which organizational members gather and disseminate information” (p. 138). When joining a new organization, newcomers often consult online databases to save time and potentially the embarrassment of asking a question with an obvious answer (Flanagin & Waldeck, 2004). Though face-to-face communication remains the most important predictor of effective socialization, use of communication technologies is the second highest predictor (Waldeck, Seibold, & Flanagin, 2004). This finding provides support for the importance of communication technologies in communicating and seeking information in organizations. Fifteen years ago, in *The New Handbook of Organizational Communication*, Jablin (2001) emphasized the importance of these connections, stating that “it seems apparent that changes in communication technology...need greater consideration in future research” (p. 745). Despite the importance of technology in information seeking during socialization, relatively few studies focus on these variables.

Theories of information and communication technology (ICT) use fall into two distinct areas: deterministic or social construction (Stephens & Sætre, 2008). Deterministic theorists assume media choice is rational and predictable, while social construction theorists assume a combination of technology features and social features influence ICT use. One often cited deterministic theory is media richness theory (Daft & Lengel, 1984; Daft, Lengel, & Trevino, 1987), which states that “rich” communication mediums, such as face-to-face mediums, have more useful features than “lean” media, such as text messages. The theory suggests that individuals choose their communication medium based on the type of situation they encounter. Though media richness theory

and other deterministic theories (e.g., social presence theory, Short, Williams, and Christie (1976)) assume rational choices, there are often other variables included in the decision to use a certain technology, especially when employees are engaged in the socialization process.

Social Influence Model

Fulk and Steinfield's (1990) book *Organizations and Communication Technology* suggests the potential influence of social and contextual variables in ICT use. The social influence model starts with the same basic assumptions as the rational choice models, but deviates by stating that decisions are also "subjective and socially constructed" (Fulk, Schmitz, & Steinfield, 1990, p. 21). According to the model, contextual social factors influence perceptions and uses of various communication mediums, including ICTs. That is, individuals make decisions about ICT use through the attitudes, statements, and behaviors of coworkers.

The social influence model suggests that certain features of tasks and communication mediums are fixed and do not change, but that other features can vary (Fulk et al., 1990). However, the model also suggests that an individual's experience with a task or communication medium will influence the medium they choose. For instance, if a worker typically finds information about a new job using online corporate resources, he or she might be familiar with that method and may use it whenever the need to find information arises. The model also includes situational factors, which includes access (or an inability to access) to various communication media (Fulk et al., 1990).

While experiences with various communication medium and situational factors are important, Stephens and Sætre (2008) highlight social variables influencing media use as the core of the social-influence model. Social variables include (a) overt comments by coworkers regarding media choices, (b) informal group norms regarding media choices, and (c) observations of others using media. Using these social variables, workers determine which forms of media to use for information seeking in a new organization.

Incorporating Technology With Existing Models

While Morrison (2002) identifies the “source” as a decision made by newcomers when seeking information, the research used as a basis for the Integrated Model of Employee Information Seeking largely focused on non-technological sources (Morrison, 1995; Morrison & Vancouver, 2000). Even after Morrison’s (2002) model was published, Waldeck and Myers (2007) only identify one study connecting technology and information seeking during socialization. Research since then has been limited, though Kramer and Miller (2014) suggest electronic sources are important information sources to consider. To emphasize the importance of technology in information seeking and using social influence model (Fulk et al., 1990), I propose the following research questions:

RQ2: Which communication media are most frequently used by transitioning professionals to seek information after they begin employment?

RQ3: How does coworker influence impact the communication medium used by newcomers to seek information?

MODELS OF EMPLOYEE INFORMATION SEEKING

In creating a model, the purpose is to capture essential features of the relationships in a real situation through a simplified form that can be easily explained (Steinberg, 2007). Several scholars have attempted to create models of the way newcomers seek feedback and information as they begin a new job (e.g., Miller & Jablin, 1991; Morrison & Bies, 1991). In fact, the purpose of the Integrated Model of Employee Information Seeking (IMEIS) was to combine former models and highlight opportunities for future research on employee information seeking (Morrison, 2002). One of the models used as a basis for the IMEIS was Miller and Jablin's (1991) Model of Newcomers' Information-Seeking Behaviors During Organizational Encounters. To understand the origins of the IMEIS, it is important to first understand the key aspects of Miller and Jablin's (1991) model and how it helped shape research on information seeking during organizational entry.

Original Model of Newcomers' Information Seeking During Organizational Encounters

When the Model of Newcomers' Information Seeking During Organizational Encounters (see Figure 1) was proposed in the early 1990s, Miller and Jablin (1991) recognized that information seeking during organizational entry was a critical aspect of the socialization process. However, information seeking in socialization was not receiving significant research attention (Miller & Jablin, 1991). In this model, there are several primary factors that affect information seeking as individuals enter new

organizations (Miller & Jablin, 1991), with uncertainty being one of the primary reasons to look for information. As previously discussed, there are many reasons individuals experience higher levels of referent, appraisal, and relational uncertainty as they are joining a new organization (Miller & Jablin, 1991; Teboul, 1994). In addition to uncertainty, individual perceptions of social costs are another factor that affects information seeking. Based on the propositions of social exchange theory (Homans, 1958), this model suggests there are social costs involved with seeking information as a newcomer. These costs might include social rejection (Roloff, 1981), the fear of being excluded from future conversations (Miller & Jablin, 1991), or simply leaving a negative impression (Morrison & Bies, 1991).

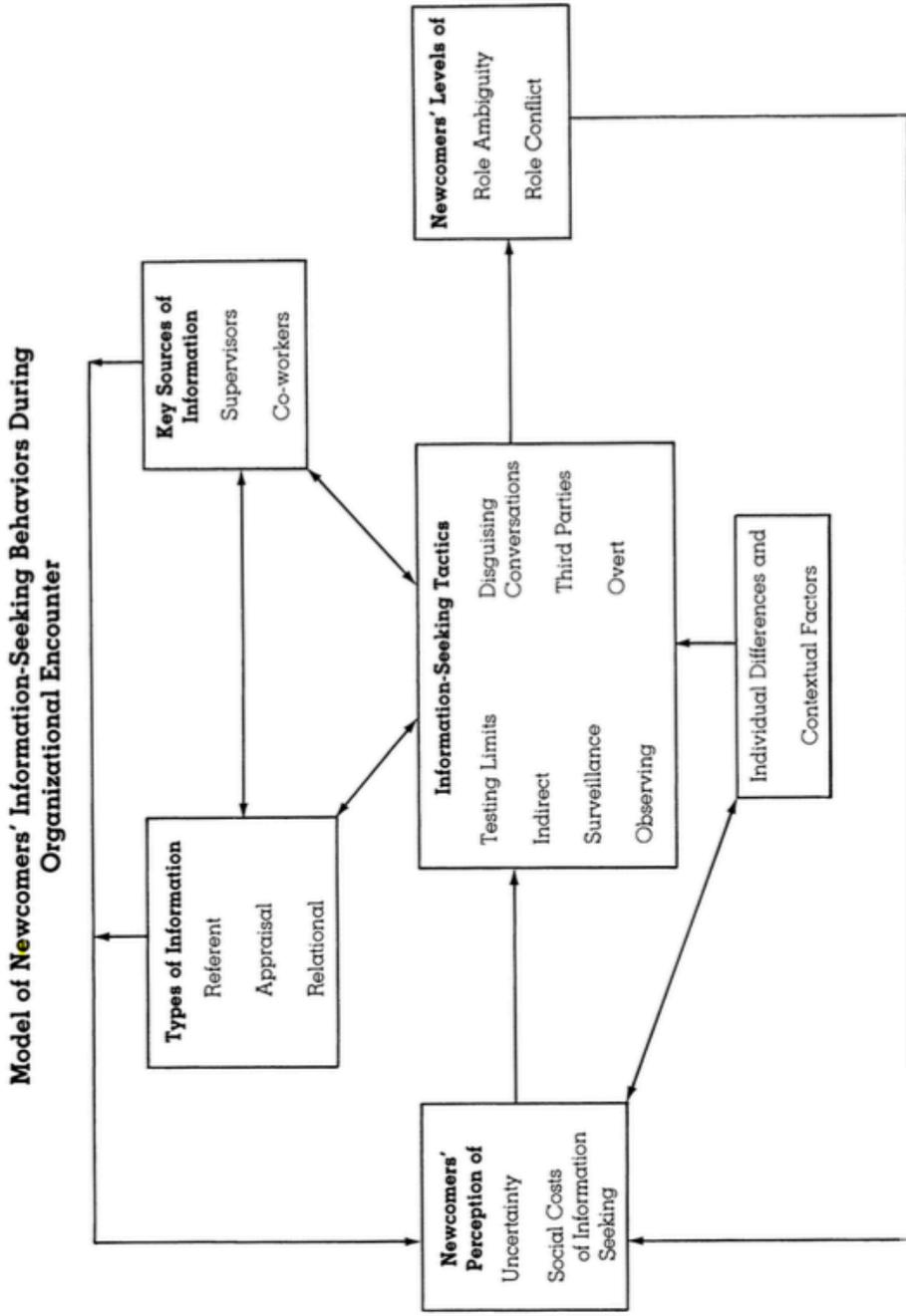


Figure 2.1 Model of Newcomers' Information-Seeking Behaviors During Organizational Encounter
 Note: This model was proposed by Miller, V. D., & Jablin, F. M. (1991). Information seeking during organizational entry: Influences, tactics, and a model of the process. *The Academy of Management Review*, 16, 92-120.
 doi:10.5465/AMR.1991.4278997

In proposing their model, Miller and Jablin (1991) indicate that another important factor in information seeking is the source used by the employee to seek information. Research indicates the importance of the supervisor and subordinate relationship (Hart, 2012; Jablin, 2001), but the model also suggests co-workers are another important source of information. In a longitudinal study of employees transferring work locations within the same organization, Callister et al. (1999) found information seeking with peers to decline over time while supervisor inquiry remained relatively stable. The model also suggests that the content of the information is a factor in the decisions of newcomers to seek information. Using the categories of referent, appraisal, and relational information, Miller and Jablin (1991) suggest the type of information is important in information-seeking research, yet was not closely considered. Since proposing the model, scholars continue to investigate the importance of message content in information seeking (e.g., Barge & Schlueter, 2004; Chao, O'Leary-Kelly, Wolf, Klein, & Gardner, 1994; Hart, 2012).

The final factors that influence information seeking as proposed in the model are the individual and contextual factors affecting how newcomers seek information (Miller & Jablin, 1991). Individual factors such as level of self-esteem, tolerance for ambiguity, and level of cognitive complexity are all items that might influence a newcomer's decision to seek information. The model draws upon the research of Louis (1990) and specifically indicates "experience in making transitions" and "familiarity with work environments similar to the new environment" as individual factors affecting information

seeking. Contextual factors are the choices about the way in which the organization chooses to socialize individuals using the tactics proposed by Van Maanen and Schein (1979). Though both of these sub-factors directly deal with individuals making career transitions, the model does not explain their importance further. Miller and Jablin's (1991) model served as the standard visual depiction of information seeking during socialization for many years until Morrison (2002) updated the model with expanded empirical research on information seeking.

Integrated Model of Employee Information Seeking

Eleven years after Miller and Jablin (1991) proposed their model of information seeking during socialization, Morrison (2002) recognized the advancement in information-seeking research and acknowledged a need for an updated model to depict these changes. Specifically, Morrison (2002) points to the important findings regarding the sources (Morrison, 1993), types of information (Ostroff & Kozlowski, 1992), and strategies used by newcomers as they enter an organization. Morrison (2002) also considers feedback seeking an important aspect of the information-seeking process. Feedback is a valuable resource for individuals hoping to perform well in an organization when they are unsure of the expectations of their personal performance (Ashford & Cummings, 1983). While the feedback and information-seeking literatures often consider similar topics, they had been largely disconnected until Morrison (2002) suggested the IMEIS (see Figure 2).

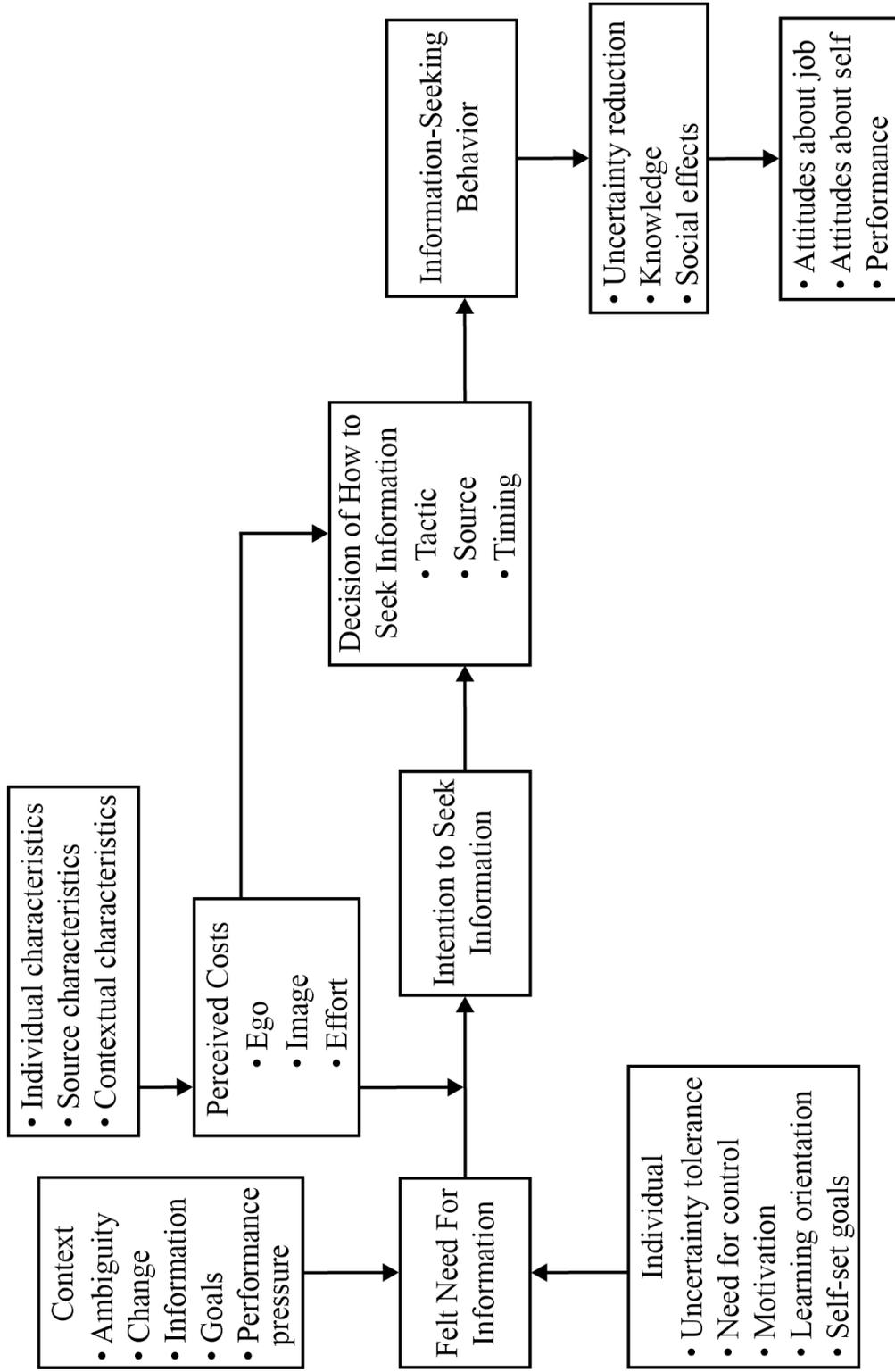


Figure 2.2 Integrated Model of Employee Information Seeking

Note: This model was proposed by Morrison, E. W. (2000). Information seeking within organizations. Human Communication Research, 28, 229-242. doi:10.1111/j.1468-2958.2002.tb00805.x

One of the primary differences in Morrison's (2002) model is the clear depiction of information seeking occurring over a period of time. Morrison (2002) theorized there was a logical process that unfolds over time, yet is influenced by external and internal elements. In Morrison's model, there are four primary stages of employee information seeking: felt need for information, intention to seek information, a decision of how to seek information, and the information-seeking behavior. In the first stage, the felt need for information is influenced by both organizational context and individual personality factors, similar to those proposed by Miller and Jablin (1991). Specifically, within the organization, there are five items influencing the need for information: ambiguity about an issue or set of issues, organizational changes (e.g., corporate mergers), the availability of information without inquiry, clarity of organizational goals, and external pressure to perform at a certain level. Individuals' personalities influence the need for information through their tolerance for uncertainty, personal need for control, motivation to become competent at the job, learning orientation, and personal career and job goals. The IMEIS model suggests the importance of each of these items in creating an individual's felt need for information (Morrison, 2002).

Once individuals feel a need for information, they make a decision to seek the information; however, there is an important moderator in the relationship: individuals consider perceptions of cost before they proceed with the decision to seek information (Levy, Albright, Cawley, & Williams, 1995; Roloff, 1981). Morrison (2002) suggests a wide range of variables affecting an individual's assessment of costs, including individual

characteristics (performance level, assertiveness), source characteristics (availability, credibility), and organizational characteristics (norms, processes).

Following the evaluation of costs involved with seeking information, if individuals make the choice to seek information, they need to determine how they will proceed (Gruman, Saks, & Zweig, 2006; Miller, 1996; Morrison & Bies, 1991). While still considering the costs of seeking information (Levy et al., 1995), individuals must determine how, from whom, and when they will seek information. When considering how individuals will seek information, there are a variety of strategies they might use (Miller, 1996). Specifically, there are five ways individuals choose to seek information: overt (asking direct questions), indirect (asking questions so they do not seem like questions), third party (finding someone else besides the supervisor), testing (annoying the target to see how they would respond), and observing (paying attention to the actions and words of others).

In determining from whom to seek information, newcomers might approach their supervisor, but they might also go to other co-workers or organizational members (Hart, 2012; Vancouver & Morrison, 1995). The relationship an employee has with his or her supervisor influences a variety of work-related outcomes, including job satisfaction, performance, and turnover rate (Sias, 2009). Whereas supervisors might have the greatest influence over a new employee, coworkers and peers in the organization are often the most available sources of information (Kramer & Miller, 2014; Louis, Posner, & Powell, 1983; Sias, 2009). In addition to supervisors and coworkers, printed materials and electronic manuals might act as a source of information for newcomers in an

organization. Newcomers must also determine the best time to seek information.

Though some questions might be more appropriate earlier in employment, others might be better asked at a later time.

Finally, when an employee makes the decision of how they will seek information, Morrison (2002) suggests they engage in the information-seeking behavior, which leads to first-level and second-level outcomes. First-level outcomes follow directly after receiving the information and include items like uncertainty reduction, new knowledge, and social effects (Morrison, 1993; Morrison, 2002). Second-level outcomes, including attitudes about learning, attitudes about the job, and overall performance, occur later, at time intervals that vary among individuals.

Because this study seeks to understand the information-seeking behaviors of newcomers, the following research question utilizes relationships proposed in Morrison's (2002) IMEIS:

RQ4: How do individual characteristics influence the communication media used by newcomers to seek information?

INCORPORATING THE TYPE OF TRANSITION IN THE IMEIS

The IMEIS (Morrison, 2002) accurately portrays many of the theoretical assumptions about information seeking during newcomer entry. It does not, however, consider the *type* of transition individuals are going through as they make a career move. Each type of career transition (including occupational, job, and education to paid) has varying degrees of uncertainty, in both depth and breadth (Gati, Krausz, & Osipow, 1996;

Trevor-Roberts, 2006). Callister et al. (1999) suggested different levels of uncertainty for newcomers changing jobs, or making major relocations, which leads to differences in feedback seeking. In her suggestions for future research, Morrison (2002) suggests future research on information seeking related to changes in career stage and how information seeking varies by experience. Though Morrison (2002) proposes these as future research avenues, changes in career stage are not clearly indicated in the model as it is presented. Based on research suggesting differences between jobs and careers (Feldman & Ng, 2007; Pixley, 2009) and between those with occupational experience and those without (Adkins, 1995; Avolio et al., 1990), I propose the following:

H1a: The type of career transition partially explains the tactics used in information seeking.

H1b: The type of career transition partially explains the source used in information seeking.

H1c: The type of career transition partially explains the communication medium used in information seeking.

In summary, I will explore four research questions and three hypotheses in my dissertation, as summarized in Table 2.1.

Table 2.1 Summary of Research Questions and Hypotheses

RQ1: Which information-seeking tactics and sources do transitioning professionals use most frequently?

RQ2: Which communication media are most frequently used by transitioning professionals to seek information after they begin employment?

RQ3: How does coworker influence impact the communication medium used by newcomers to seek information?

RQ4: How do individual characteristics influence the communication media used by newcomers to seek information?

H1a: The type of career transition partially explains the tactics used in information seeking.

H1b: The type of career transition partially explains the source used in information seeking.

H1c: The type of career transition partially explains the communication medium used in information seeking.

Chapter 3: Methods

STUDY OVERVIEW

In addressing the research questions and hypotheses posed in this study, I utilized quantitative survey data. I collected data using an online survey from individuals who recently experienced a career transition. For this study, I chose to use solely quantitative data for several reasons. First, the purpose of this study was to better understand the IMEIS and incorporate career transitions in the propositions of the model. Since the original IMEIS (Morrison, 2002) has not been thoroughly tested, I found and replicated operationalization techniques similar to variables in other socialization research. When I examined recent socialization research on information seeking, I found that many studies used quantitative measures (e.g., De Vos & Freese, 2011; Saks et al., 2011). Further, the foundational studies on information seeking during the socialization process used quantitative scales to measure sources and tactics (Miller, 1996) and type (Morrison, 1993) of information sought. Second, I considered the type of questions asked in the research to determine the most appropriate research design (Creswell, 2014). Because this study investigated three groups of people who have experienced different types of career transitions, this is classified as causal-comparative research, which Creswell (2014) suggests works well with quantitative research. This chapter describes the participants, data collection procedure, and the operationalization of each variable.

PARTICIPANTS

For the study, I recruited participants through two primary sources: a) company representatives that distributed the survey to qualifying employees, and b) my personal social networks. I recruited people through various sources to participate in the study to capture a variety of career-transition experiences. Participants across both groups represented individuals making each of the three types of career transitions. Thus, I did not make comparisons between groups in the two recruitment sources; rather, I utilized both sources to gain a broader sample. Before detailing the participants, I will first describe the recruitment procedures in detail.

Company Distributions

I began recruiting participants by working with contacts in four organizations who agreed to distribute the survey. Each of these contacts either worked in human resources or in an associated area of the company. This ensured that they were able to pass along the survey to a specific group of employees: those working at the company for two years or less. In each of these organizations, I provided the contact with a sample e-mail for recruitment containing the link for the survey. The contact then forwarded the e-mail to all employees that worked with the company for less than two years. Of those who completed the survey, 34.2% ($N = 68$) were recruited using this method. See Appendix A for the e-mail used by the contacts to recruit employee participants.

Personal Social Networks

In addition to distributing the survey through corporate contacts, I also utilized a snowball collection technique. The first form of social network distribution utilized Facebook and LinkedIn to recruit participants. I wrote and distributed multiple posts on personal pages of the respective social media websites to promote the research and ask for participants. Additionally, I created posts in multiple human resource and onboarding groups within these social media websites to promote the study.

The second way I utilized my personal social network was by contacting former students who either took the survey or shared it with their friends who qualified. Many of these students recently graduated with their undergraduate degree, so they took the survey. Others had not yet graduated, but offered to either pass the survey on via e-mail or through a post on their social media websites (Facebook, LinkedIn, etc.). Of those that completed the survey, 65.8% ($N = 131$) were recruited using personal social networks. See Appendix B for the social media website posts used to recruit participants.

DATA COLLECTION PROCEDURE

The recruitment process occurred over the course of three months and all data was collected using Qualtrics, an online data collection software, and stored on secure servers at the University of Texas at Austin. There was no point at which I, the researcher, interacted personally with the participants after sending the initial recruitment e-mail. Though a pilot study was not officially conducted, a version of the survey was sent to four colleagues with instructions to read through the survey and identify any items that

were unclear. Additionally, I hired a professional editor to read through the survey and make grammatical suggestions and corrections to ensure readability. This process helped create a clearer survey for the participants.

When participants clicked on the survey link, they were first provided with an electronic informed consent form. By making the choice to continue with the survey, they agreed to participate in this research. All participation in the survey was voluntary and there was no compensation offered for survey completion. The survey took about 10-20 minutes to complete, with the average participant taking about 18 minutes. The survey consisted of 89 Likert-type and semantic differential questions, three open-ended questions, and 13 demographic and job classification questions. A total of 269 surveys were started, but a thorough data-cleaning process revealed a number of incomplete surveys.

Data Cleaning

In cleaning the data, I found that 11.5% ($N = 31$) of the participants only completed the first page of the survey that asked for their current organization and their previous organization. I attribute this participant drop-off to two things. First, participants were uncomfortable providing the name of their current employer, even though they were assured the data would not be used to identify them or attach them to their organization. Second, participants might have realized they did not qualify for the survey because they had not transitioned jobs within the past two years (a stated

requirement for completing the survey), so they discontinued the survey. These 31 surveys were removed from analysis because they did not contain usable data.

In addition to the 31 participants who did not continue past the first page of the survey, 39 participants began the survey but did not complete a majority of the items. Though there are methods that can be used to fill in missing data (as described later in this chapter), when participants drop out early, they usually do so after reading the consent form, or answering a small sub-set of questions (Hoerger, 2010). This was the case in 14.4% ($N = 39$) of surveys in the data set where individuals began the survey, but did not continue past the consent form or a small sub-set of questions. After removing individuals who only completed the consent form, and those completing a small sub-set of the entire survey—defined as less than half of the total items—the total number of responses remaining for analysis was 199.

With 199 surveys completed out of the 269 started, I had a dropout rate of 26%. Though this number is higher than expected, this dropout rate can be partially attributed to the fully online form of dissemination (Hoerger, 2010). According to Hoerger (2010), 6% of participants usually drop out immediately after the consent form, and 10% discontinue shortly thereafter. When an individual is given a link to a survey that has no attached incentive or personal explanation, they might click it to see what it is about and decide quickly that they do not want to participate. Still, based on the demographic information provided by the respondents, a wide array of participant data collected was collected, thus providing a suitable sample for the study.

Participants

The participants included 31.7% males ($N = 63$) and 62.8% females ($N = 125$), and 5.5% did not provide a response to or declined to answer the gender question ($N = 11$). The participants ranged in age from 17 to 68, and the average age was 31 years old ($SD = 9.91$). The survey respondents predominantly spoke English as their first language ($N = 176$, 88.4%). Participants varied in highest level of education completed, including 1% with a high school diploma ($N = 2$), 6.5% with some college ($N = 13$), 4.0% with an Associate's Degree ($N = 8$), 55.8% with a Bachelor's Degree ($N = 111$), 20.6% with a Master's Degree ($N = 41$), 2.5% with a Professional Degree ($N = 5$), and 5.0% with a Doctorate Degree ($N = 10$). (See Table 3.1 for the full demographic information of survey participants.)

Table 3.1 Demographic Information of Participants

Demographic	Frequency	Percentage
Gender		
<i>Male</i>	63	31.6%
<i>Female</i>	125	62.8%
<i>Decline to Answer</i>	1	0.5%
<i>No Response</i>	10	5.0%
Age		
<i>17-25</i>	69	34.7%
<i>26-35</i>	82	41.2%
<i>36-45</i>	18	9.0%
<i>46-55</i>	13	6.5%
<i>56-65</i>	7	3.5%
<i>Over 65</i>	1	0.5%
<i>No Response</i>	9	4.5%

Table 3.1, cont.

Ethnicity		
<i>White</i>	138	69.3%
<i>Black or African American</i>	9	4.5%
<i>Hispanic/Latino/Spanish Origin</i>	17	8.5%
<i>Asian</i>	21	10.6%
<i>Some other race or origin</i>	3	1.5%
<i>Decline to Answer</i>	2	1.0%
<i>No Response</i>	9	4.5%
First Language		
<i>English</i>	176	88.4%
<i>Spanish</i>	6	3.0%
<i>Other</i>	7	3.5%
<i>No Response</i>	10	5.0%
Highest Level of Education Completed		
<i>Some High School</i>	0	0.0%
<i>High School Diploma/GED</i>	2	1.0%
<i>Some College</i>	13	6.5%
<i>Associate's Degree</i>	8	4.0%
<i>Bachelor's Degree</i>	111	55.8%
<i>Master's Degree</i>	41	20.6%
<i>Professional Degree</i>	5	2.5%
<i>Doctorate Degree</i>	10	5.0%
<i>No Response</i>	9	4.5%
Number of Employees in Company		
<i>Less than 50</i>	29	14.6%
<i>50-299</i>	56	28.1%
<i>300 or More</i>	104	52.2%
<i>No Response</i>	10	5.0%

The workplace data about the participants also revealed descriptive information about the organizations where participants currently and previously worked. For current workplaces, individuals worked in organizations of various sizes, with 14.6% ($N = 29$) of participants working in companies with less than 50 employees, 28.1% ($N = 56$) working in companies with 50-299 employees, 52.5% ($N = 104$) working in companies with 300 or more employees, and 5.0% ($N = 10$) that did not report the size of their company. Participants' current jobs represented a wide variety of functions, with the four most

common including Education, Training, & Library ($N = 27$, 13.6%), Computer and Math ($N = 26$, 13.1%), Office and Administrative, ($N = 23$, 11.6%), Architecture and Engineering ($N = 22$, 11.1%). Participants' former jobs also represented a wide variety of functions, with the four most common including Office and Administrative support ($N = 17$, 8.5%), Education, Training, & Library ($N = 16$, 8.0%), Architecture and Engineering ($N = 12$, 6.0%), and Sales ($N = 11$, 5.5%). (See Table 3.2 for the job functions of survey participants.)

Table 3.2 Job Functions of Participants

Function	Frequency	Percentage
Current Job		
<i>Management</i>	17	8.5%
<i>Business and Financial Operations</i>	15	7.5%
<i>Computer and Math</i>	26	13.1%
<i>Architecture and Engineering</i>	22	11.1%
<i>Life, Physical, and Social Sciences</i>	2	1.0%
<i>Community and Social Services</i>	5	2.5%
<i>Legal</i>	4	2.0%
<i>Education, Training, & Library</i>	27	13.6%
<i>Arts, Design, Entertainment, Sports, & Media</i>	10	5.0%
<i>Healthcare Practitioners and Technicians</i>	13	6.5%
<i>Healthcare Support</i>	9	4.5%
<i>Protective Services</i>	1	0.5%
<i>Personal Care and Service</i>	1	0.5%
<i>Sales</i>	17	8.5%
<i>Office and Administrative Support</i>	23	11.6%
<i>Production</i>	3	1.5%
<i>Transportation</i>	2	1.0%
Previous Job		
<i>Management</i>	9	4.5%
<i>Business and Financial Operations</i>	9	4.5%
<i>Computer and Math</i>	10	5.0%
<i>Architecture and Engineering</i>	12	6.0%
<i>Community and Social Services</i>	10	5.0%
<i>Legal</i>	1	0.5%
<i>Education, Training, & Library</i>	16	8.0%
<i>Arts, Design, Entertainment, Sports, & Media</i>	7	3.5%
<i>Healthcare Practitioners and Technicians</i>	5	2.5%
<i>Healthcare Support</i>	5	2.5%
<i>Food Preparation and Serving</i>	4	2.0%
<i>Personal Care and Service</i>	1	0.5%
<i>Sales</i>	11	5.5%
<i>Office and Administrative Support</i>	17	8.5%
<i>Construction and Extraction</i>	1	0.5%
<i>Production</i>	1	0.5%
<i>Transportation</i>	2	1.0%
<i>Military</i>	1	0.5%

Of the survey participants, 38.7% ($N = 77$) were previously students, and thus made a transition directly into the workforce without a previous full-time job. Of the individuals transitioning between organizations, 22.6% ($N = 45$) made occupation changes and 38.2% ($N = 76$) made job changes. Participants had varying amounts of time since their career change with 14.6% ($N = 29$) making the change within the past 2 months, 18.5% ($N = 37$) making the change about 3-6 months ago, 28.6% ($N = 57$) making the change about 7 months-1 year ago, 30.2% ($N = 60$) making the change about 1-2 years ago, 3.5% ($N = 7$) making the change about 2-4 years ago, and 4.5% ($N = 9$), making the change more than 4 years ago. (See Table 3.3 for the workplace data of survey participants.)

Table 3.3 Workplace Data of Participants

Demographic	Frequency	Percentage
Number of employees in company		
<i>Less than 50</i>	29	14.6%
<i>50-299</i>	56	28.1%
<i>300 or More</i>	104	52.2%
<i>No Response</i>	10	5.0%
Previously a student		
<i>Yes</i>	77	38.7%
<i>No</i>	122	61.3%
Time since career change		
<i>Within the past 2 months</i>	29	14.6%
<i>About 3-6 months ago</i>	37	18.6%
<i>About 7 months-1 year ago</i>	57	28.6%
<i>About 1-2 years ago</i>	60	30.2%
<i>About 2-4 years ago</i>	7	3.5%
<i>More than 4 years ago</i>	9	4.5%

OPERATIONALIZATION OF VARIABLES

In this section I report the details of the scales and reliabilities for the measures included in this study. In situations where the reliabilities suggested measurement issues, I provide those details. There are also several instances where I factor analyzed my measures and created new scales to be used in subsequent analyses. I provide those details here for measurement clarity. I provide all the Confirmatory Factor Analyses (CFA) for my remaining scales in the preliminary analyses in the Results.

Independent Variable Measures

The proposed Integrated Model of Employee Information Seeking (IMEIS) indicated that nine variables lead to an employee's felt need for information and decision of how to seek information. The nine variables include: type of transition, felt need for information, uncertainty tolerance, need for control, motivation, learning orientation, self-set goals, number of transitions, and coworker influences. The following is a summary of the measurement techniques used for each of these variables (for a complete copy of the survey instrument, see Appendix C).

Type of Transition

The survey began with a seven-item questionnaire to determine the type of transition made by the participant. The questionnaire was developed specifically for this study, using a method similar to Higgins (2001) when she investigated career changers. The participant was first asked to provide the name of his or her current organization. I

assured the participant that the name of his or her organization would not be tied to the data he or she entered in the remainder of the survey. Participants were also asked to provide the best description of his or her current job function using the full list from the Bureau of Labor Statistics' (BLS) Standard Occupational Classification major groups list (U.S. Bureau of Labor Statistics, 2010a). The resource from the BLS contains a comprehensive list of 23 major job functions. The next question asked if the participant was a student immediately before joining his or her current organization. This question helped determine if the participant was transitioning between paying jobs or if he or she was entering paid work for the first time after formal education. If the participant indicated that he or she was not a student, the participant was asked for the name and job function of his or her previous organization. The two final items of this questionnaire asked the participant if he or she perceived the new job to be a career change from the prior job and when his or her most recent transition occurred.

The information from this seven-item questionnaire was used to categorize individuals as making one of three types of transitions: occupational ($N = 46$, 23.1%), job ($N = 76$, 38.2%), or education to paid ($N = 77$, 38.7%). This was determined using a process similar to the methods used by Higgins (2001). To be classified as having made an occupational change, participants were required to fit three criteria relating to the change: first, employees needed to be in a different company; second, they had to have a different job function; and third, and they had to perceive the job as a career change. If participants failed to meet any one of the three mentioned criteria, their transition was categorized as a job change. Finally, if participants indicated that they were previously a

student before starting at their current job, their transition was categorized as education to paid work.

Felt Need for Information

Participants responded to Janssen and Prins' (2007) five-item scale measuring desire to seek information. The scale contained five items where participants indicated the extent to which they agreed or disagreed with the statements about seeking information. Items included: "I ask for information to learn how I can master tasks," "I ask for information to improve my knowledge and capabilities," and "I ask for information to learn how I can improve performing my work." For this scale, there were no items that required reverse coding. Respondents used a Likert-type 5 point scale that ranged from 1 = *strongly disagree*, to 5 = *strongly agree*. The scale had moderately high reliability ($\alpha = .73$) in prior research (Janssen & Prins, 2007). In this study, the scale achieved a high reliability ($\alpha = .80$, $M = 4.29$, $SD = .61$, $N = 199$).

Uncertainty Tolerance

This study used the intolerance of uncertainty scale (Carleton, Norton, & Asmundson, 2007) to measure how well a participant tolerated uncertainty. The scale was developed in the field of psychology to assess the level of worry and state anxiety in an individual surrounding a potential negative event. The scale was originally 27 items (Freeston, Rhéaume, Letarte, Dugas, & Ladouceur, 1994), but Carleton et al. (2007) reduced the scale to 12 items while still maintaining validity and reliability. Because it

maintained the validity and reliability of the original scale, I chose to use the condensed scale in this study. Questions included items such as “Unforeseen events upset me greatly,” “I can’t stand being taken by surprise,” and “When I am uncertain I can’t function very well.”

The item responses were provided on a Likert-type 5 point scale ranging from 1 = *not at all characteristic of me*, to 5 = *entirely characteristic of me*. To analyze the results in the original study, Carleton et al. (2007) summed the items, which resulted in a range of 12 to 60. In an effort to maintain consistency with the other scales used in this study, the score was divided by 12 to determine a mean with a range of one to five.

Additionally, due to the phrasing of the items, a score of 12 indicated high tolerance of uncertainty and a score of 60 indicated low tolerance of uncertainty. Because a system where low scores indicate high tolerance is not intuitive, in this study I reversed the scores, which resulted in higher scores indicating higher levels of uncertainty tolerance. Reliability for the original scale was considered high ($\alpha = .91$) and there was strong convergent validity (Carleton et al., 2007). In this study, I also found the scale to be highly reliable ($\alpha = .86$, $M = 3.28$, $SD = .67$, $N = 199$).

Need for Control

A participant’s need for control was measured using Greenberger’s (1982) need for control scale. The scale was developed to measure desire for personal control over work-related factors. Items asked participants to indicate how much control they desired over various areas in the workplace such as “the variety of tasks you perform” and “the

amount of work you do.” No items in this scale required reverse coding prior to analysis. The scale contained 11 items measured on a 5-point Likert-type scale with the following labels: 1 = *almost no control*, 2 = *a little control*, 3 = *a moderate amount of control*, 4 = *a great deal of control*, 5 = *almost total control*. Scores were averaged to determine individuals’ need for control at work. Past research demonstrates high reliability ($\alpha = .89$) for the scale (Greenberger, Strasser, & Lee, 1988). In this study, I also found this scale to achieve high reliability ($\alpha = .81$, $M = 3.32$, $SD = .59$, $N = 199$).

Though the scale has been used in a small number of studies, most researchers use Greenberger’s (1982) need for control scale as a unidimensional scale. Very few studies have factor analyzed this scale to confirm the number of dimensions present. Widaman and Grimm (2014) advocate for use of exploratory factor analysis (EFA) in initial explorations and confirmatory factor analysis (CFA) once the primary dimensions have been replicated in multiple studies. One form of EFA is a principle components analysis (PCA), which is used to identify the factor structure for a set of variables (Stevens, 2002). A PCA is often used when researchers seek to reduce the number of variables while retaining as much of the original variance as possible (Conway & Huffcutt, 2003).

The PCA revealed two strong factors in this scale. The Kaiser-Meyer-Olkin measure of sampling adequacy was .82, and Bartlett’s test of sphericity was significant ($\chi^2(55) = 590.82$, $p < .001$). The eleven items loaded onto two factors, which explained 50% of the total variance. Inspecting the factor loadings, I used McCroskey and Young’s (1979) .60/.40 criterion when looking at each of the factor loadings for the items in this scale. The item that measured the amount of control the participant desired over “variety

of tasks you perform” did not meet this this criterion. This item had a primary factor loading of .56, and as such, the item was deleted from the scale. After deleting the one item from the scale, the remaining items loaded onto two factors with five items each. The first factor included items that asked participants how much control they desire over the “activities you engage in that lead to expanding your skills and abilities,” “order in which you perform tasks at work,” “amount of work you do,” “quality of the work you do,” and “arrangement and decoration of your work area.” Based on the type of items in this factor, I decided to label this factor “Need for control over self.” The second factor contained items which asked participants how much control they desire over the “decisions concerning which individuals in your work area do which tasks,” “arrangement of desks and other work equipment in your area,” “decisions as to when things will be done in your work area,” “policies, procedures, and performance standards in your unit,” and “training of other work areas.” Based on the items included, I labeled this factor “Need for control over others.” Table 3.4 provides the factor loadings from the PCA for the need for control scale.

Table 3.4 Principle Components Analysis for Need for Control

Maximum Likelihood Estimation (N=199)

Item	Factor Loadings	
	Need for Control over Self	Need for Control over Others
At work how much control do you desire over the... <i>variety of tasks you perform.</i>	<i>.56</i>	<i>.29</i>
order in which you perform tasks at work.	.73	.12
activities you engage in that lead to expanding your skills and abilities.	.60	.27
amount of work you do.	.60	.28
quality of the work you do.	.70	-.12
arrangement and decoration of your work area.	.61	.11
decisions concerning which individuals in your work area do which tasks.	.12	.80
decisions as to when things will be done in your work area.	.34	.74
policies, procedures, and performance standards in your unit.	.23	.64
training of other work areas.	.02	.73
arrangement of desks and other work equipment in your work area.	.12	.70
Eigenvalues	1.60	3.91
% of variance	14.50	35.57

Note: Factor loadings that fit within the .60/40 rule appear in bold. Factors removed from the model appear in italic.

After identifying the two factors, I calculated reliabilities for each variable. The “need for control over self” factor had moderate reliability ($\alpha = .69$, $M = 3.83$, $SD = .88$, $N = 199$). The “need for control over others” factor had high reliability ($\alpha = .80$, $M =$

2.77, $SD = 1.16$, $N = 199$). The details of the CFA are presented in the findings chapter of this dissertation.

Motivation

To measure individual motivation, I used Lawler and Hall's (1970) intrinsic motivation scale. The scale was created to measure an employee's intrinsic motivation, specifically while they are at work. There were 4 items that used a 7-point Likert-type scale ranging from 1 = *strongly disagree*, to 7 = *strongly agree*. The four items were "When I do my work well, it gives me a feeling of accomplishment," "When I perform my job well, it contributes to my personal growth and development," "I feel a great sense of personal satisfaction when I do my job well," and "Doing my job well increases my feeling of self-esteem." No items required reverse coding. Scores were averaged to determine individuals' levels of intrinsic motivation at work. While the original scale used a 7-point Likert-type scale, I standardized the score to a 5-point scale to aid in the analysis and interpretation of results. The original research (Lawler & Hall, 1970) did not measure the reliabilities of the scale, but subsequent research found a Cronbach coefficient α of .79 (Van den Berg, 2011). In this study, the scale achieved very high reliability ($\alpha = .95$, $M = 4.46$, $SD = .89$, $N = 198$).

Learning Orientation

Learning orientation was measured using Elliot and Church's (1997) learning orientation scale as adapted by Gong, Huang, and Farh (2009). The adaptation changed

the context from a classroom setting to a workplace setting and removed 12 of the items that did not pertain to learning orientation in the workplace. The adapted scale contained six items measuring desire to learn in the workplace. Items included, “I want to learn as much as possible from my job” and “I hope to gain a broader understanding of my workplace skills through my job.” All items were worded positively, and did not require reverse coding. Respondents used a Likert-type 7-point scale that ranges from 1 = *not true of me at all*, to 7 = *very true of me*. For simplicity in the analysis and interpretation of results, the 7-point Likert-type scale was standardized to a 5-point. In previous studies, the scale had high reliability ($\alpha = .87$) in measuring learning orientation (Gong et al., 2009). In this study I also found a high overall reliability for the scale ($\alpha = .84$, $M = 4.51$, $SD = .51$, $N = 199$).

Self-Set Goals

To measure goals set at work, I used a section of Locke and Latham’s (1984) goal-setting questionnaire. This scale contained four items measuring goal efficacy, which is one’s desire to set and achieve goals (Lee, Bobko, Earley, & Locke, 1991). Items include: “Trying for goals makes my job more fun than it would be without goals” and “I feel that I have a suitable or effective action plan or plans for reaching my goals.” Because all items were positively worded, there was no need for reverse coding. Respondents used a Likert-type 5-point scale that ranged from 1 = *strongly disagree*, to 5 = *strongly agree*. The scale had moderate reliability ($\alpha = .68$) in prior research (Lee et al., 1991). This research was consistent with previous research indicating moderate to

low reliability ($\alpha = .64$, $M = 4.07$, $SD = .63$, $N = 199$). I verified that removing items would not greatly improve the reliability of this scale.

Number of Transitions

The number of transitions made by each individual was determined through demographic information collected in the survey. Job transitions occur when individuals make a change within the same line of work. Participants indicated they made an upward, downward, or lateral change within the same line of work between 0 and 10 times ($M = 1.65$, $SD = 1.97$). Occupational transitions are defined as “movement to a new occupation that is not part of a typical career progression” (Rhodes & Doering, 1983, p. 631). Participants in this study made occupational changes to a different line of work between 0 and 6 times ($M = 1.01$, $SD = 1.20$).

Coworker Influence

To measure the role of coworker influence in seeking information, specifically the technologies used, I created a six-item scale. The scale asked participants to indicate how much each item influenced their decision to seek information about their job. Items were based on the social influence model (Fulk et al., 1990) and they measure the social variables highlighted by (Stephens & Sætre, 2008). Sources of coworker influence were measured through items including “comments by coworkers,” “listening to what coworkers say about seeking information,” and “looking for methods used by other group members.” Respondents used a Likert-type 5-point scale that ranges from 1 = *very little*,

to 5 = *very much*. All items in this scale were positively worded, and thus did not need reverse coding. Because I created this scale, there are no prior tests of reliability; however, this study indicated high reliability ($\alpha = .89$) for the six-item scale ($M = 3.44$, $SD = .97$, $N = 196$).

Dependent Variable Measures

The proposed IMEIS has three dependent variables that measure how an individual decides to seek information. The three variables include: tactic, source, and communication medium. The following is a summary of the measurement techniques used for each of these variables (for a complete copy of the survey instrument, see Appendix C).

Information-Seeking Tactics

To measure information-seeking behaviors during career transitions, the information-seeking-strategy scale (Miller, 1996) was used. This 22-item scale asked respondents to report their use of five information-seeking strategies during the socialization process. The five information-seeking strategies were: overt, indirect, third party, testing, and observing. Respondents used a Likert-type 7-point scale with anchors that were slightly modified to specify the language used in the scale. I slightly modified the wording of the questions containing the word “coworkers.” The original survey included coworkers as an alternative noun to increase the applications of the survey. For example, a question asked, “I would go directly to my *supervisor (coworker)* and ask for

information about the matter.” In an effort to reduce survey-participant uncertainty, I chose to only keep the references to “supervisors,” as in this question where I omitted the reference to coworkers: “I would go directly to my supervisor and ask for information about the matter.” This type of change occurred in 13 of the 22 items in the scale.

The following are samples of the types of questions asked within each of the information-seeking strategies. Overt: “I would ask specific, straight to the point questions to get the information I wanted,” or “I would go directly to my supervisor and ask for information about the matter.” Indirect: “I would indicate my curiosity about the topic without directly asking for the information.” Third Party: “I would find a source other than my supervisor who could tell me the same information.” Testing: “I would “mess up” on something related to my topic to see how my supervisor would respond,” or “I would do one or two things to get on my supervisor’s nerves in order to see how they would react.” Observing: “I would look for answers about the job in the behaviors of my supervisor.” All of the items were positively worded and did not require reverse coding before analysis.

In addition to changing the wording in several items, I also changed the wording on the Likert-type scale to add clarity. The original scale ranged from 1 = *a very little extent*, to 7 = *a very great extent*; with the modified wording, the scale read 1 = *very rarely*, to 7 = *very often*.

In the process of transferring the survey from a paper draft copy to the electronic version, I accidentally created only six levels of response instead of seven, and this mistake was not discovered until data collection was complete. Though not ideal, the

scale still used the modified wording on each of the anchor points in the six levels of response. The only potential issue was that participants did not have a “middle” option to choose from. Because it was unfeasible to re-collect all of the data to correct this error, I used the data collected on the six-point scale. To align this survey with others in the dataset, I transformed the answers from six points to five points. Further information on the transformation performed before analysis is included in the results section of this dissertation. The reliability for the original scale was calculated within each of the information-seeking strategies: overt, ($\alpha = .80$); indirect, ($\alpha = .74$); third party, ($\alpha = .77$); testing, ($\alpha = .69$); and observing, ($\alpha = .80$) (Miller, 1996). In this study, each of the subscales also had adequate reliability: overt, ($\alpha = .64, M = 4.21, SD = .60, N = 199$); indirect, ($\alpha = .70, M = 2.29, SD = .86, N = 199$); third party, ($\alpha = .74, M = 2.99, SD = .89, N = 199$); testing, ($\alpha = .89, M = 1.28, SD = .63, N = 199$); and observing, ($\alpha = .68, M = 3.54, SD = .67, N = 199$).

Information-Seeking Source

Individuals seek information from a variety of sources when they enter the workplace for the first time. To measure the source of information seeking, I used a scale developed specifically for this study. The 9-item scale was developed using sources suggested by Kramer and Miller (2014) based on previous information-seeking research (Miller & Jablin, 1991; Teboul, 1994). The nine sources of information were: peers/coworkers, supervisors, subordinates, other organizational members (i.e., administrative assistants, acquaintances in other departments), customers/clients, printed

materials and manuals, electronic materials and manuals, friends outside work, and family members. Participants used a Likert-type 5-point scale ranging from 1 = *not likely at all*, to 5 = *very likely*, to indicate how likely they are to go to that source for information about their new job. No items were reverse coded prior to data analysis. Because this scale was developed for this study, it had not been previously tested for reliability. In this survey, the scale achieved a mid-range reliability ($\alpha = .64$).

Because this scale was not used prior to this study, I used PCA with varimax rotation to test the scale. The Kaiser-Meyer-Olkin measure of sampling adequacy was .61, and Bartlett's test of sphericity was significant ($\chi^2(36) = 329.8, p < .001$). The nine items loaded onto three factors, which explained 59% of the total variance.

The first factor contained three items—"friends outside work," "family members," and "customers"—which accounted for 26% of the overall variance. Of the three items, "customers" did not meet the .60/.40 rule (McCroskey & Young, 1979), and thus was removed from the factor; the remaining two items accounted for 27% of the variance and I labeled them "external sources." The second factor contained four items—"peers/coworkers," "supervisors," "subordinates," and "other organizational members"—and accounted for 17.6% of the variance. I labeled these items "internal sources." The third factor contained two items—"electronic materials and manuals" and "printed materials and manuals"—which accounted for 15.6% of the variance. Both of the items had factor loadings above .7, and I labeled them "written sources." This resulted in three factors in the information-seeking source scale, with a total of eight items. The external sources and written sources factors had two items each, and thus

required a different measure of reliability from the commonly used Chronbach's α . For two-item scales, Eisinga, Manfred, and Pelzer (2013) suggest the Spearman-Brown statistic as the most appropriate measure of the reliability coefficient.

The external sources factor had high reliability ($r = .82$, $M = 2.29$, $SD = 1.15$, $N = 199$). The written sources factor had moderate reliability ($r = .61$, $M = 3.82$, $SD = .92$, $N = 199$). Because there were only two items in this factor, it was not possible to remove a factor to increase reliability, thus both items were retained. The internal sources factor had four items, so I used a Chronbach's α and the reliability was low ($\alpha = .58$, $M = 3.99$, $SD = .71$, $N = 199$). Due to the low reliability of this factor, I reviewed the scale statistics to see if I could improve the reliability by removing an item from analysis. I found that removing any one of the single items would further reduce the already low reliability. Upon looking further at each of the items in the scale, I decided to treat the items as individual, single measures because they appear theoretically distinct. For example, it does not make sense that a new employee would be as likely to go to a supervisor as a subordinate to seek information. The resulting items had the following descriptive statistics: peers/coworkers ($M = 4.59$, $SD = .83$, $N = 199$), supervisors ($M = 4.33$, $SD = .85$, $N = 199$), subordinates ($M = 3.30$, $SD = 1.33$, $N = 199$), and other organizational members ($M = 3.75$, $SD = 1.16$, $N = 199$). Table 3.5 provides the initial factor loadings for the information-seeking source scale before dividing the four items in the internal sources factor.

Table 3.5 Principle Components Analysis for Information Seeking Source

Maximum Likelihood Estimation (N=199)

Item	Factor Loadings		
	External Sources	Internal Sources (Each Treated Individually)	Written Sources
Friends outside work	.91	.07	.01
Family members	.87	-.11	.02
<i>Customers/clients</i>	<i>.43</i>	<i>.23</i>	<i>.28</i>
Peers/coworkers	.01	.65	-.08
Supervisors	-.17	.59	.32
Subordinates	.09	.77	-.08
Other organizational members	.40	.60	.13
Electronic materials and manuals	.13	.00	.81
Printed materials and manuals	.02	.00	.83
Eigenvalues	2.34	1.59	1.40
% of variance	26.04	17.61	15.55

Note: Factor loadings that fit within the .60/40 rule appear in bold. Factors removed from the model appear in italic.

Note: The items for peers/coworkers, supervisors, subordinates, and other organizational members were each treated individually as explained in this section of the dissertation.

Communication Technology Medium

To focus on the communication technology media used for information seeking, an updated version of Scott and Timmerman's (2005) technology-use scale was used. This scale was similar to the information-seeking source scale, but focuses specifically on the types of technology used for information seeking in the workplace. The original scale included 19 different technologies, but many technologies were eliminated because they

are not used for information-seeking purposes (i.e., voicemail, pager). I added three new technologies not included on the original scale (text message, online organizational intranet, and digital copy of employee handbook) and mobile phone was delineated to include a mobile phone provided by the organization and a personal mobile phone. The updated scale had 10 items asking the participant to indicate how regularly he or she used each technology to seek information in the workplace. Participants used a Likert-type 5-point scale ranging from 1 = *very rarely*, to 5 = *very regularly*. None of the items required reverse coding prior to analysis.

When checking the reliability of this scale, I found this scale yielded a low reliability ($\alpha = .52$). With a reliability this low, I revisited the scale items to determine the potential cause. By definition, reliability is a measure of internal consistency, and this scale appeared to measure the use of 10 unique technologies used in the workplace. Each technology is meant to be exclusive of the other technologies, and thus the answers provided by each person likely have large variations depending on the norms and rules of their organization. To further understand the low reliabilities, I examined the means for each item and found the item measuring information seeking via “phone call with mobile phone provided by workplace” ($M = 1.98$) and “fax” ($M = 1.41$) were much lower than the means of the other items measured. I removed these items with the rationale that they were not frequently used for information-seeking purposes. This is not surprising as 50% of employers now require employees to bring their own device to work and are not providing mobile phones (Van der Meulen & Rivera, 2013). Further, being an older form of workplace communication, fax is unlikely to be used to seek information today.

Next, I used a PCA with varimax rotation to understand the underlying factor structure of the remaining eight items. The Kaiser-Meyer-Olkin measure of sampling adequacy was .56, and Bartlett's test of sphericity was significant ($\chi^2(28) = 174.62, p < .001$). The eight items loaded onto three factors, which explained 58% of the total variance. The first factor consisted of two items: "Phone call on personal mobile phone," and "Text message." These items accounted for 24.0% of the variance. These items fit into a category that I labeled: "mobile technologies." The second factor consisted of three items: "Internet," "Online organizational intranet," and "e-mail." Of these three items, "e-mail" did not have a factor loading that fit within the .60/40 rule (McCroskey & Young, 1979). The remaining two items both seemed to measure a category I labeled as "web technologies," which accounted for 18.2% of the variance. Though e-mail did not load onto this factor, research shows that email is one of the primary ways of directly contacting another individual to seek information (Case & Given, 2016). Because e-mail is so often used in the corporate setting and is a common way of seeking information, I decided to retain it as a single-item measure ($M = 4.42, SD = .93$). The fourth factor consisted of the items "landline office phone," "online chat," and "digital copy of employee handbook." Of the items, online chat and digital copy of employee handbook did not fit the .60/.40 rule, and thus were removed from analysis. This left landline office phone as the singular item in this category. This item accounted for 15.8% of the total variance.

After removing four items from the scale and re-running the PCA, the remaining six items for this scale accounted for 75.3% of the total variance. Table 3.6 provides the factor loadings for the communication technology medium scale.

Table 3.6 Principle Components Analysis for Communication Technology Medium

Maximum Likelihood Estimation (N=199)

Item	Factor Loadings		
	Mobile Technologies	Web Technologies	Landline
Phone call on personal mobile phone	.84	.06	.10
Text message	.83	.00	-.03
Internet	.13	.70	-.08
Online organizational intranet	-.32	.67	.13
E-mail	.39	.59	.23
Landline office phone	.20	.14	.74
<i>Online chat</i>	.12	.44	-.65
<i>Digital copy of employee handbook</i>	-.04	.36	.45
Eigenvalues	1.96	1.45	1.20
% of variance omitting removed items	32.73	25.17	19.12

Note: Factor loadings that fit within the .60/40 rule appear in bold. Factors removed from the model appear in italic. The item for e-mail was removed from web technologies and represents a single item factor.

After identifying the four factors, I calculated reliabilities for each composite variable. The “mobile technologies” scale had acceptable reliability ($r = .70$, $M = 2.58$, $SD = 1.15$, $N = 199$). The “web technologies” scale had low reliability ($r = .36$, $M = 4.19$, $SD = .83$, $N = 199$). This low reliability was concerning, and so I looked more closely at both of the items in this factor. Upon closer inspection, I realized that the internet is an outward source where the employee uses technology to seek information outside the corporation. An organizational intranet is an inward source that directs the employee to information contained within organizational servers. Because these two

sources are quite different in their sources of information, I decided to separate internet and online organizational intranet into individual items and these were the resulting descriptive statistics: Internet ($M = 4.67$, $SD = .72$, $N = 199$), online organizational intranet ($M = 3.71$, $SD = 1.35$, $N = 199$), and e-mail ($M = 4.42$, $SD = .93$, $N = 199$). The final source was comprised of a single item: landline office phone ($M = 2.35$, $SD = 1.41$, $N = 199$).

SUMMARY OF CHAPTER

In this chapter, I outlined the collection methods and scales used to understand information-seeking behaviors based on the type of transition. Specifically, I described the recruitment strategy and clarified the data-collection procedure, including the complete demographics of survey participants. Finally, I detailed the operationalization of the variables, including the reliabilities of the scales used in the study. See Table 3.7 for a list of all variables used in the study and their reliabilities, means, and standard deviations. In the next chapter, I review the data analysis process and present the results of the study.

Table 3.7 Full Variable List

Independent Variables	Reliability	Mean	Standard Deviation
Felt need for information	.80	4.29 *	.61
Uncertainty tolerance	.86	3.28*+	.67
Need for control over self	.67	3.80 *	.59
Need for control over others	.80	2.77 *	.87
Motivation	.95	6.18 ^	1.34
Learning orientation	.84	6.27 ^	.76
Self-set goals	.64	4.07 *	.63
Number of transitions (range = 0-6)	-	1.01 #	1.20
Coworker influence	.89	3.44 *	.97
Dependent Variables	Reliability	Mean	Standard Deviation
<u>Tactics</u>			
Information-seeking tactic – Overt	.64	5.02 ^	.74
Information-seeking tactic – Indirect	.70	2.61 ^	1.07
Information-seeking tactic – Third party	.74	3.49 ^	1.11
Information-seeking tactic – Testing	.89	1.36 ^	.79
Information-seeking tactic – Observing	.68	4.18 ^	.84
<u>Sources</u>			
Information-seeking source – External	.82	2.29 *	1.15
Information-seeking source – Internal (Peers/Coworkers)	-	4.59 *	.83
Information-seeking source – Internal (Supervisors)	-	4.33 *	.85
Information-seeking source – Internal (Subordinates)	-	3.30 *	1.33
Information-seeking source – Internal (Other organizational members)	-	3.75 *	1.16
Information-seeking source – Written	.61	3.82 *	.92

Technologies

Technology medium – mobile	.70	2.58 *	1.15
Technology medium – web (e-mail)	-	4.42 *	.93
Technology medium – web (internet)	-	4.67 *	.72
Technology medium – web (online organizational intranet)	-	3.71 *	1.35
Technology medium – traditional	-	2.35 *	1.41

* Measured on a 1-5 scale

^ Measured on a 1-7 scale

Measured on a scale other than 1-5 or 1-7

+ Following prior analysis techniques, this scale was not initially averaged.

Chapter 4: Findings

This study tested components of the IMEIS. The first variable I added to the existing model was the type of transition that occurred (occupational, job, or education to paid). I made this addition because the literature suggested that career-transition experiences were different based on previous career experiences. I also added the element of coworker influence to the model because co-workers can influence individual's information seeking, especially when joining a new workplace. Finally, I added "communication medium" as a dependent variable in the model. The existing model included "tactics" as an outcome variable; however, this variable was broad and did not consider all of the modes of communication that might be used for information seeking. Adding "communication medium" as a variable emphasizes the importance of communication in seeking information.

In this chapter, I begin by examining the dataset for missing data. Next, I describe the analyses used to determine the scale reliabilities: confirmatory factor analysis and principle components analysis. Before conducting any analyses, the data underwent a number of tests to confirm all statistical assumptions were met. Once these assumptions were confirmed, I ran the data using SPSS and AMOS to answer the research questions and test the hypotheses.

MISSING DATA

As stated in the methods chapter, only 199 of the 269 surveys initiated were included in the analysis. This was due to participants completing less than 50% of the

overall survey. Because of the large number of individuals that dropped off of the survey, I wanted to ensure that the participants who dropped off were not significantly different from the participants who fully completed the survey. Most participants completed the first two scales (intrinsic motivation and learning orientation) before dropping off, so I used two independent-sample *t*-tests to compare the responses of participants who completed the survey and those who did not. There was no significant difference in the motivation scale for those who dropped off ($M = 5.89, SD = 1.38$) and those who did not drop off ($M = 6.15, SD = 1.38$), $t(233) = 1.06, p > .05$. There was also no significant difference in the learning orientation scale for those who dropped off ($M = 5.88, SD = 1.07$) and those who did not drop off ($M = 6.24, SD = .82$), $t(234) = 2.35, p > .05$. The non-significant differences for these scales suggest that the participants removed were not significantly different from the participants who were retained for analysis.

When looking at the 199 remaining surveys, I examined each variable to determine if there were any patterns in the missing data. There were eight participants who did not finish the survey in its entirety, but did complete at least 50% of the overall survey. This meant that five participants (2.5%) did not complete any of the items about the information seeking tactics, and eight participants (4.0%) did not complete either the scale measuring information-seeking source or communication technology medium. Additionally, there were 22 participants that missed one item, or very few items (<6) on the survey. To account for this missing data, I performed a mean substitution to replace the missing values.

Mean substitution, a form of single imputation, is the process of filling in the missing items using information provided by other respondents (Schafer & Graham, 2002). According to Schafer and Graham (2002), there are several desirable reasons to use single imputation. First, it retains the full sample size and prevents the loss of individual responses. Second, it produces a complete dataset that can be analyzed using standard methods and software. And finally, if multiple researchers use the same set of data, they will all work with the exact same set of units to prevent potential discrepancies based on data replacement methods. For the first two reasons, I chose to use mean imputation strategy to replace the missing values in the eight responses that contained missing data.

PRELIMINARY ANALYSES

Confirmatory Factor Analysis

Prior to running the statistical analyses for this study, I performed a confirmatory factor analysis (CFA) for all existing and updated scales. In this study, CFA procedures were performed for the following measures: felt need for information, uncertainty tolerance, need for control, motivation, learning orientation, self-set goals, and information-seeking tactic. According to Levine, Hullett, Turner, and Lapinski (2006), some researchers believe it is unnecessary to factor analyze existing scales, but they argue that CFA can encourage cross-study comparisons and encourage replication of research. All CFA procedures were conducted using IBM's SPSS AMOS software.

The criteria for determining goodness of fit varies among social science researchers based on sample size, model complexity, normality of data, and type of data (Brown, 2015). I used four popular measures of fit to determine the overall goodness of fit for each scale: (a) root mean square error of approximation (RMSEA), (b) comparative fit index (CFI), (c) standardized root mean square residual (SRMR), and (d) model chi-square. Following Browne and Cudeck's (1992) suggestion as a rule of thumb, RMSEA values of $\leq .08$ will suggest adequate model fit, values $\leq .05$ suggest good model fit, and models $\geq .10$ should be rejected. Hu and Bentler (1999) suggest SRMR cutoff values of $< .08$, and CFI cutoff values of $> .95$. I used a combination of these values to determine the goodness of fit for each scale analyzed using a CFA.

Principle Components Analysis

While many of the variables in this study were operationalized with previously tested scales, two scales were created specifically for this study: coworker influence and information-seeking sources. For each of these scales, I conducted a principle components analysis (PCA) with varimax rotation using the Statistical Package for the Social Sciences (SPSS). Based on the suggestion of Stevens (2002), I used the Kaiser (1960) criterion and scree plots (Cattell, 1966) to determine how many factors to retain. According to Kaiser (1960), any component whose eigenvalue is greater than one is retained. Scree plots provide a graphical depiction where the magnitudes of the eigenvalues are plotted against their ordinal numbers, which depicts a steep drop off and leveling off. The recommendation is to retain all components before the drop-off

(Stevens, 2002). For factor loading, I used the .60/.40 criterion, which considers a loading significant if it has a primary loading on one factor of at least .60 and no secondary loading on another factor above .40 (McCroskey & Young, 1979). The following sections provide the results from each analysis performed for the scales used in this study.

Felt Need for Information

Using confirmatory factor analysis, the five items in this scale loaded onto a single latent construct. All of the factor loadings were strong, so all factors were retained in the scale. Using the standards for model fit reported earlier, the confirmatory model for the felt need for information indicated good fit: RMSEA = .16_[90% CI: .111-.219], CFI = .92, SRMR = .05, $\chi^2(5) = 31.17, p < .001$. According to the Browne and Cudeck (1992) criteria, the value for RMSEA does not indicate adequate fit. This was initially concerning because the scale demonstrated high reliability ($\alpha = .80$) and had been used in many prior studies. As suggested by Kenny, Kaniskan, and McCoach (2015), all fit measures, not just a single measure, must be considered. They suggest that RMSEA might not be the strongest measure of fit when the degrees of freedom is low and the number of participants is low. Due to both of these factors being low for this scale ($df = 5, N = 199$), I relied more heavily on the other measures of goodness of fit. Since the remaining measures of goodness of fit indicate a good fit, I determined the five-item felt need for information scale was adequate for use in the analysis.

Uncertainty Tolerance

Using confirmatory factor analysis, the twelve items in this scale loaded onto the single latent construct measuring uncertainty tolerance. Two of the items had low values of .38 and .46. I inspected each of these items and considered removing them from the analysis. Specifically, the following items were considered for removal from analysis: “It frustrates me not having all the information I need” and “One should always look ahead so as to avoid surprises.” Each of these items seems to be talking about ways to proactively avoid uncertain situations rather than how much one tolerates uncertainty, and might not be fully measuring the same concept. Upon removing the items from the scale, model fit was reduced rather than increased, and thus I decided to keep all 12 factors. Due to poor model fit (RMSEA = .14_[90% CI: .120-.154], CFI = .75, SRMR = .089, $\chi^2(54) = 253.99, p < .001$.), I decided to further analyze this scale.

I first used modification indices to determine potential issues with the measurement in this scale. Covariances of the error terms indicated a high modification index between the error for two pairs of items on the scale: items nine and ten, and three and five. Upon revisiting items nine and ten, I found that they stated: “When it’s time to act, uncertainty paralyses me” and “When I am uncertain, I can’t function very well.” These questions were presented sequentially in the survey and likely caused some confusion based on the similarity of “paralysis” in item nine and “not functioning well” in item 10. Because the questions are similar in nature, I decided to covary the error terms for those items. Items three and five state, “One should always look ahead as to avoid surprises” and “I always want to know what the future has in store for me.”

Because these are both forward-looking statements that ask the participant about the desire for future certainty, I felt they were similar in content covered. Thus, I covaried the error terms for these items as well and reran the standards for model fit to find an improved model fit: RMSEA = .09_[90% CI: .075-.112], CFI = .89, SRMR = .070, χ^2 (52) = 141.46, $p < .001$. Therefore, by covarying the error terms of two items, the confirmatory factor analysis of the uncertainty tolerance scale confirmed the factor structure of the instrument is viable and the data theoretically fit the expectations.

Need for Control

Using the results from the PCA conducted in the methods section of this dissertation, the ten items on this scale loaded onto two factors with five items each. These items were subjected to a confirmatory factor analysis. Using the standards for model fit, the confirmatory model for need for control indicated good fit: RMSEA = .06_[90% CI: .037-.089], CFI = .95, SRMR = .06, χ^2 (34) = 60.97, $p < .01$. Therefore, the confirmatory factor analysis of the need for control scale confirmed the factor structure of the instrument is viable and the data theoretically fit the expectations set forth in the scale.

Motivation

This four-item scale was subject to a confirmatory factor analysis with each item loading onto a single latent construct. Analysis revealed each item loaded significantly on the construct at or above the .84 level. Using the standards for model fit, the

confirmatory model for motivation indicated good fit: RMSEA = .053_[90% CI: .000-.160], CFI = .99, SRMR = .007, $\chi^2 (2) = 3.10, p > .05$. Therefore, the confirmatory factor analysis of the intrinsic motivation scale confirmed the factor structure of the instrument is viable and the data theoretically fit the expectations for motivation.

Learning Orientation

This six-item scale was subject to a confirmatory factor analysis with each of the items loading onto a single latent construct. Using the standards for model fit, the confirmatory model for learning orientation indicated poor fit: RMSEA = .27_[90% CI: .236-.315], CFI = .74, SRMR = .096, $\chi^2 (9) = 143.0, p < .001$. Because of the inadequate model fit, I considered the modification indices to determine if any error terms should be covaried. The terms indicated that items five and six were closely related, so I revisited them in the scale. These items read: “I prefer job-related information that arouses my curiosity, even if it is difficult to understand” and “I prefer job-related information that challenges me to learn new things.” Upon inspection, it seems that these are very similar items, with one item focusing on arousing curiosity and the other focusing on learning new things. Since these are asking for a similar type of information, I decided to covary the error terms, which resulted in a moderate model fit: RMSEA = .16_[90% CI: .114-.200], CFI = .93, SRMR = .05, $\chi^2 (8) = 46.15, p < .001$.

After covarying the terms, the standards for model fit were improved, but they were not yet satisfactory. I re-inspected the loading factors and noticed that item four was much lower than the other factors (.62). To help improve overall fit, I decided to

further inspect item four, which stated “I desire to completely master my job.” In reading this item, I noticed that it was the only item in the scale that used definitive phrasing, implying complete mastery of job tasks. The other five items used hedging terms, such as “I prefer to...” or “...as thoroughly as possible,” that were not as definitive. Because of this difference, I decided to remove this item from the scale and found that it greatly improved model fit: RMSEA = .07_[90% CI: .000-.145], CFI = .99, SRMR = .02, $\chi^2(4) = 8.331$, $p > .05$. As all of these standards met the rules for adequate or good model fit, the scale with five items was retained.

Self-Set Goals

A four-item portion of Locke and Latham’s (1984) goal-setting questionnaire was used to measure desire to set and achieve goals. Using the standards for model fit, the confirmatory model for self-set goals indicated good fit: RMSEA = .134_[90% CI: .058-.230], CFI = .95, SRMR = .05, $\chi^2(2) = 9.44$, $p > .01$. Though the RMSEA value was slightly above the cutoff of .08 suggested by Browne and Cudeck (1992), all other measures of model fit indicated a good fit. Like the felt need for information scale, this scale only has four items, and thus has a low *df* value. Due to this low value, Kenny et al. (2015) suggest greater focus on CFI and SRMR values, which both indicate a good fit. Thus, the confirmatory factor analysis of self-set goals confirmed the factor structure of the instrument and that the data fit with the theoretical expectations.

Coworker Influence

Because the scale used in this study, based on the social influence model (Fulk et al., 1990), had not been tested in prior research, I used a PCA with varimax rotation to test the scale. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .84, which was above the commonly recommended value of .6. A high KMO indicated the usefulness of the PCA. Bartlett's test of sphericity was also significant ($\chi^2(15) = 651.2$, $p < .001$). All six items loaded onto one factor, which explained 64% of the total variance. I used McCroskey and Young's (1979) .60/.40 criterion when inspecting each of the factor loadings for the items in this scale. Upon inspecting the factor loadings, none of the primary factors was below .60, so the scale was kept as-is for analysis and no items were deleted from the scale.

Information-Seeking Tactic

The 22-item scale was developed by Miller (1996) to measure information-seeking behaviors. Miller (1996) identified five information-seeking strategies, which were each measured as a different factor in the scale. As mentioned in the methods section, due to a mistake in transferring the survey to an electronic version, participants were only given six levels of response instead of seven. This required a linear transformation to convert the range from 1-6 to 1-5. To do this, I used the following simple equation: $Y = (B - A) * (x - a) / (b - a) + A$, where A is the new minimum (1), B is the new maximum (5), a is the old minimum (1), and b is the old maximum (6). After inputting the numbers for this transformation, the equation reads $(5-1) * (x-1) / (6-1) + 1$.

Simplifying and rearranging the equation, the equation reads $.8x + .2$. This equation was used to transform the data for each of the 22-items before finding the averages for each of the five information-seeking strategies. Following the data transformation, the means and standard deviations for each subscale was moderately adjusted from the those reported in the methods: overt, ($M = 4.21$, $SD = .60$, $N = 199$); indirect, ($M = 2.29$, $SD = .86$, $N = 199$); third party, ($M = 2.99$, $SD = .89$, $N = 199$); testing, ($M = 1.28$, $SD = .63$, $N = 199$); and observing, ($M = 3.54$, $SD = .67$, $N = 199$).

All items were subjected to a confirmatory factor analysis with each of the items loading onto one of the five factors. Using the standards for model fit, the confirmatory model for information-seeking tactic indicated adequate fit: RMSEA = $.08_{[90\% \text{ CI: } .069-.089]}$, CFI = $.84$, SRMR = $.09$, $\chi^2(199) = 443.24$, $p > .001$. Therefore, the confirmatory factor analysis of the information-seeking tactic scale confirmed the factor structure of the instrument is viable and the data theoretically fit the expectations.

Communication Technology Medium

The communication technology medium used for information seeking was measured using a condensed version of Scott and Timmerman's (2005) technology use scale. Many items from the original scale were eliminated because they were not used for information-seeking purposes. The methods section of this paper outlines the process used to determine the six items that were retained for analysis.

Correlations

Upon completing the factor analyses and necessary scale modifications, I examined the correlations of all variables in the study. Many of the variables had significant positive or negative correlations with each other at the .05 or .001 level. Due to space restrictions and the number of total variables in the study ($n = 24$), I provide three separate correlation tables. See Table 4.1 for the correlations between the individual-level variables and the information-seeking tactics, Table 4.2 for the correlations between the individual-level variables and information-seeking sources, and Table 4.3 for the correlations between the individual-level variables and communication media used for information seeking.

Table 4.1 Correlations Coefficients Between Tactics and Individual-Level Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Tactics-Overt												
2. Tactics-Observing	.17*											
3. Tactics-Indirect	-.30**	.47**										
4. Tactics-Third Party	-.18*	.19**	.37**									
5. Tactics-Testing	-.21**	.18*	.46**	.31**								
6. Felt Need for Information	.25**	.19**	0.00	-0.07	-0.09							
7. Uncertainty Tolerance	0.05	-0.13	-.21**	-0.14	0.02	-0.07						
8. Need For Control Over Self	.19**	.15*	0.07	-0.01	0.00	.37**	-0.06					
9. Need For Control Over Others	0.05	.20**	.26**	0.02	.24**	0.09	-0.12	.41**				
10. Motivation	0.01	0.01	0.01	-0.12	-0.14	.26**	-0.02	0.13	-0.02			
11. Learning Orientation	.29**	.18*	-0.11	-0.10	-.22**	.46**	0.01	0.14	-0.03	.37**		
12. Self-Set Goals	.20**	.16*	0.03	-0.05	-.14*	.46**	0.05	.17*	0.08	.41**	.45**	
13. Coworker Influence	-0.04	.20**	.25**	.15*	0.03	0.10	-0.09	0.01	0.04	0.09	.15*	0.13

* $p < .05$

** $p < .01$

Table 4.2 Correlation Coefficients Between Sources and Individual-Level Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Source-External													
2. Source-Written	0.12												
3. Source-Peers	0.04	0.08											
4. Source-Supervisors	-0.05	.17*	.23**										
5. Source-Subordinates	0.06	-0.01	.28**	.28**									
6. Source-Other Org Members	.30**	.17*	.32**	.22**	.34**								
7. Felt Need for Information	0.03	.29**	0.05	.23**	0.11	0.11							
8. Uncertainty Tolerance	-0.02	-0.04	0.02	0.03	0.12	-0.03	-0.07						
9. Need For Control Over Self	0.05	.14*	-0.04	0.12	0.02	0.05	.37**	-0.06					
10. Need For Control Over Others	.15*	0.05	-.16*	-0.06	-0.05	-0.08	0.09	-0.12	.41**				
11. Motivation	0.04	0.03	0.00	0.01	0.01	0.08	.26**	-0.02	0.13	-0.02			
12. Learning Orientation	-0.01	0.13	0.06	0.13	0.06	0.09	.46**	0.01	0.14	-0.03	.37**		
13. Self-Set Goals	0.01	0.14	-0.06	0.07	0.05	0.02	.46**	0.05	.17*	0.08	.41**	.45**	
14. Coworker Influence	0.08	-0.02	0.11	-0.06	-0.02	0.13	0.10	-0.09	0.01	0.04	0.09	.15*	0.13

* $p < .05$

** $p < .01$

Table 4.3 Correlation Coefficients Between Communication Media and Individual-Level Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Comm Medium-Mobile												
2. Comm Medium-Internet	0.08											
3. Comm Medium-Intranet	-0.12	.20**										
4. Comm Medium-Email	.27**	.30**	.16*									
5. Comm Medium-Landline	.16*	0.02	0.08	.25**								
6. Felt Need for Information	0.09	.16*	0.10	0.09	0.04							
7. Uncertainty Tolerance	-0.08	-0.06	-0.05	-0.04	-0.07	-0.07						
8. Need For Control Over Self	0.11	.14*	0.01	.16*	0.07	.37**	-0.06					
9. Need For Control Over Others	.19**	0.01	-0.06	0.06	.20**	0.09	-0.12	.41**				
10. Motivation	-0.06	0.09	0.06	0.04	-0.07	.26**	-0.02	0.13	-0.02			
11. Learning Orientation	0.04	0.04	0.12	0.07	.14*	.46**	0.01	0.14	-0.03	.37**		
12. Self-Set Goals	-0.06	-0.01	0.04	0.05	0.00	.46**	0.05	.17*	0.08	.41**	.45**	
13. Coworker Influence	0.03	0.00	0.14	0.08	0.00	0.10	-0.09	0.01	0.04	0.09	.15*	0.13

* $p < .05$

** $p < .01$

Testing for Statistical Assumptions

Prior to analyzing the data, I performed a series of statistical tests to confirm the integrity of the dataset. In the following section, I explain the method I use to verify the statistical assumptions within the dataset.

Outliers

Univariate outliers are a single data point that are different from the rest of the dataset (Stevens, 2002). According to Stevens (2002), there are two primary reasons for outliers: (1) a data recording error was made, or (2) the subjects are different from the rest. Additionally, participants could misread the survey and select an incorrect response or participants could inadvertently take the survey without qualifying or understanding the questions. To begin examining the data for univariate outliers, I created a visual frequency distribution of each variable. After close visual inspection, I did not notice any data outside the norm of the potential responses. I confirmed this by converting each variable to a z-score, which standardizes all scores, and then placed them on a normal distribution curve. I did not remove any data during this stage of data analysis.

Following the removal of univariate outliers, I also checked for the presence of multivariate outliers in the independent variables. A multivariate outlier occurs when there is a combination of two or more unusual scores on at least two independent variables in the dataset. The Mahalanobis distance (D^2) is one of the common ways to check for the presence of multivariate outliers. Mahalanobis distance identifies the

distance of a particular case from the mean of all cases for the predictor variable (Stevens, 2002, p. 130). This distance is calculated using the Chi-square critical value, using .001 as a significance threshold (Meyers, Gamst, & Guarino, 2006). The analysis of my data resulted in two cases below the .001 threshold, so I removed those responses from the survey before analysis. I looked at the raw data for these cases and they did not stand out visually as outliers (e.g., the respondent selected 5 for all the responses or the data was entered incorrectly into SPSS). For this reason, I did not immediately remove these cases from the dataset, but instead ran the analyses both with *and* without these cases to confirm that did not affect the results.

Normality

Before running any statistical procedures, it is important to determine if the dataset is well-modeled following a normal distribution. I used two recommended tests to ensure normality of the data: (1) skewness and kurtosis, and (2) the Shapiro-Wilk test (Thode, 2002). While the Kolmogorov-Smirnov and chi-squared goodness of fit tests are also commonly-used tests of normality, Thode (2002) argues their power is very low and they should not be seriously considered.

The test of skewness is used to measure the asymmetry of the distribution of a variable. A substantial departure from the normality curve is anything with an absolute skew value > 2 (West, Finch, & Curran, 1995). Kurtosis measures the “flatness” or “peakedness” of a distribution compared to the normal distribution. West et al. (1995) suggest absolute kurtosis values > 7 as substantially departing from normality. Using

these cutpoints, four of the 24 variables fall into non-normal distributions: motivation, tactics-testing, source-peers, and communication medium-internet. Before performing any transformations, I also subjected the data to the Shapiro-Wilk test. In analyzing the Shapiro-Wilk test, I examined the data for values greater than .05, which would indicate that we would accept the null hypothesis to conclude the data came from a normal distribution. In this step, I also took into consideration the normal Q-Q plots for the variables to indicate the data is situated in a linear form. This data confirmed the non-normality of the same variables as the tests of skewness and kurtosis.

Using the results of the tests of normality, I transformed the non-normal variables to achieve a more normal distribution. I followed a two-step transformation procedure for normality (Templeton, 2011), where the original mean and standard deviations are retained to improve the interpretation of the results. After the transformations, the skewness/kurtosis measurements and the Q-Q tests indicated normality—based on the aforementioned criteria—of the data for each variable: motivation (skewness = -.54, kurtosis = -.63), tactics-testing (skewness = 1.24, kurtosis = .29), source-peers (skewness = -1.44, kurtosis = .78), communication medium-internet (skewness = -1.71, kurtosis = 1.59).

Homoscedasticity

If the distribution of the residuals of the predictor variables all have the same variance, a dataset is said to be homoscedastic (Cohen, Cohen, West, & Aiken, 2013). Thus, to check for this assumption, I used a scatterplot with the z residuals on one axis

and the z predicted values on the other axis for each of the variables considered in the study. The test resulted in generally uniform variance between the predictor variables and the residuals, and therefore met the assumption of homoscedasticity.

Multicollinearity

When there is substantial correlation among the independent variables in a dataset, multicollinearity exists (Cohen et al., 2013). If multicollinearity is present, it can be problematic because it can increase the variance of the coefficients, causing them to be highly sensitive to minor changes in a model. To check for multicollinearity in this dataset, I relied upon variance inflation factors (VIF).

A VIF is a term that quantifies the amount of inflated variance in a particular variable due to multicollinearity. A common rule of thumb is to further inspect any variable with a VIF above 4, and to consider anything above 10 a serious multicollinearity issue (Hocking, 2013). Calculating the VIF for each independent variable resulted in no value greater than 1.66, which is within the parameters of the rules when evaluating for multicollinearity. In addition to the VIF value, I inspected the correlation table of all independent variables. Dormann et al. (2013) suggest if the absolute value of the correlations is above .70, there might be a concern of multicollinearity. In this dataset, the highest correlation between two variables is .47 (See Table 4.1). Thus, both tests indicate that the dataset does not violate the assumption of multicollinearity.

TESTING HYPOTHESES AND RESEARCH QUESTIONS

For this study, I focused specifically on the variables that led to decisions of how to seek information based on the type of transition that occurred. I chose not to focus on the variables measuring attributes occurring after the information had been sought, because this was beyond the scope of this dissertation. Using Morrison's (2002) model as a framework for the posed hypotheses and research questions, this study expands the literature to incorporate the type of transition and information-seeking behaviors in one study.

Information Tactics and Sources

Research question one asked which information seeking tactics and sources were most frequently used by transitioning professionals. Due to the exploratory nature of this question, I began by examining the descriptive statistics for each type of career transition (occupational, job, or education to paid). The results indicated that for each of the career transition types, overt information seeking tactics were most commonly used (Occupational, $M = 4.30$, $SD = .55$; Job, $M = 4.17$, $SD = .62$; Education to Paid, $M = 4.21$, $SD = .60$). Testing tactics were the least commonly used information seeking tactic among each of the transition types (Occupational, $M = 1.53$, $SD = .74$; Job, $M = 1.37$, $SD = .60$; Education to Paid, $M = 1.61$, $SD = .80$). (See Table 4.4 for full descriptive statistics of the information seeking tactics used.)

Table 4.4 Descriptive Statistics for Tactics of Information Seeking by Transition Type

Tactic	Transition Type					
	Occupational		Job		Education to Paid	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Overt	4.30	.55	4.16	.62	4.21	.60
Observing	3.68	.70	3.46	.66	3.53	.67
Third Party	2.93	.89	2.82	.74	3.21	.98
Indirect	2.33	.81	2.18	.78	2.38	.95
Testing	1.52	.74	1.37	.60	1.61	.80

After comparing the means for the categories of the tactics of information seeking, I decided to look specifically at the individual items used to measure the tactics. This item-level analysis revealed that the most-often used tactic for each type of transition was “I asked specific, straight to-the-point questions to get the information I wanted” (Occupational, $M = 4.39$, $SD = .86$; Job, $M = 4.33$, $SD = .73$; Education to Paid, $M = 4.38$, $SD = .78$). Following this item, each of the types of transitions varied somewhat as to the specific ways those making the transition chose to seek information. For example, the second most relied upon for individuals making occupational career transitions was the observation tactic of “going about [their] tasks, but if any new information came [their] way, [they would] be sure to pay attention to it” ($M = 4.30$, $SD = .77$), followed by “walking around just to see ‘what was up’ and think about what it might mean in relation to the topic when [they] had more time” ($M = 4.28$, $SD = .81$). For individuals making job transitions, their second and third most relied upon tactics included “[ignoring] a rule or guideline related to the topic just to see how [their]

manager would react” ($M = 4.19, SD = .87$), followed by “walking around just to see ‘what was up’ and think about what it might mean in relation to the topic when [they] had more time” ($M = 4.11, SD = .96$). Finally, the second and third tactics used by individuals making education to paid transitions were to “indicate [their] curiosity about the topic without directly asking for the information” ($M = 4.30, SD = .75$), followed by “going about [their] tasks, but if any new information came [their] way, [they would] be sure to pay attention to it” ($M = 4.12, SD = .92$).

The second part of the research question asked which sources transitioning professionals used most often. The results indicated that for all career transition types, peers were the most common source used (Occupational, $M = 4.40, SD = .71$; Job, $M = 4.62, SD = .54$; Education to Paid, $M = 4.53, SD = .56$). The least common type of source used by individuals in all three types of transitions was external sources, which included the items “friends outside of work” and “family members” (Occupational, $M = 2.66, SD = 1.23$; Job, $M = 2.00, SD = .98$; Education to Paid, $M = 2.36, SD = 1.19$). (See Table 4.5 for descriptive statistics of the sources of information.)

Table 4.5 Descriptive Statistics for Sources of Information by Transition Type

Source	Transition Type					
	Occupational		Job		Education to Paid	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Peers	4.40	.71	4.62	.54	4.54	.56
Supervisors	4.33	.85	4.46	.74	4.19	.93
Written	3.96	.88	3.85	.89	3.70	.96
Other Organizational Members	3.74	1.14	3.87	1.17	3.64	1.16
Subordinates	3.02	1.29	3.68	1.26	3.09	1.34
External	2.66	1.23	2.00	.98	2.36	1.19

Communication Media Used

Research question two asked which communication media are most frequently used by transitioning professionals to seek information after beginning employment. Like RQ1, this question is exploratory in nature, so I began by examining the descriptive statistics for each type of career transition (occupational, job, and education to paid). For each type of transition, internet had the highest means among the three factors (Occupational, $M = 4.71$, $SD = .39$; Job, $M = 4.63$, $SD = .48$; Education to Paid, $M = 4.56$, $SD = .56$). The next highest type of communication media used was the same for each type of transition. The second highest was email (Occupational, $M = 4.48$, $SD = .84$; Job, $M = 4.43$, $SD = .84$; Education to Paid, $M = 4.37$, $SD = 1.06$), and the third was internal intranets (Occupational, $M = 3.54$, $SD = 1.41$; Job, $M = 3.86$, $SD = 1.24$; Education to

Paid, $M = 3.66$, $SD = 1.42$). (See Table 4.6 for full descriptive statistics of the communication medium used to seek information.)

Table 4.6 Descriptive Statistics for Information Seeking Communication Medium by Transition Type

Communication Medium	Transition Type					
	Occupational		Job		Education to Paid	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Internet	4.71	.39	4.64	.48	4.56	.55
Email	4.48	.84	4.43	.84	4.38	1.06
Organizational Intranet	3.54	1.41	3.86	1.24	3.66	1.42
Mobile	2.68	1.18	2.50	1.16	2.58	1.13
Landline Phone	2.22	1.44	2.39	1.32	2.39	1.50

Coworker Influence and Technologies Use for Information Seeking

Research question three seeks to further understand how coworker influence plays a role in communication media chosen by newcomers during socialization. To answer this question five simple linear regressions were calculated using coworker influence as the predictor variable and each of the communication media (mobile, internet, organizational intranet, email, and landline) as the outcome variable. The first simple linear regression was calculated predicting individuals' use of mobile technologies based on coworker influence. The regression equation was not significant ($F(1,197) = .225, p > .05$) with an R^2 of .001: coworker influence is not a significant predictor of mobile technology use. The second simple linear regression was calculated predicting individuals' use of the internet based on coworker influence. The regression equation

was not significant ($F(1,197) = .001, p > .05$) with an $R^2 < .001$: coworker influence is not a significant predictor of internet use. The third simple linear regression was calculated predicting individuals' use of the organizational intranet based on coworker influence. The regression equation was significant ($F(1,197) = 3.88, p < .05$) with an R^2 of .02: coworker influence is a significant predictor of organizational intranet use. The fourth simple linear regression was calculated predicting individuals' use of email based on coworker influence. The regression equation was not significant ($F(1,197) = 1.40, p > .05$) with an R^2 of .01: coworker influence is not a significant predictor of email use for newcomers. The final simple linear regression was calculated predicting individuals' use of landline telephones based on coworker influence. The regression equation was not significant ($F(1,197) = .01, p > .05$) with an $R^2 < .001$: coworker influence is not a significant predictor of landline telephone use.

Information-Seeking Influencers and Communication Media

Research question four asked how the information-seeking influencers impacted the communication media used by newcomers in the information-seeking process. The information-seeking influencers included uncertainty tolerance, need for control over self, need for control over others, intrinsic motivation, learning orientation, desire to set goals at work, felt need for information, the number of workplace transitions between jobs, and the number of career transitions. To answer this research question, five linear regressions were conducted, one for each of the communication media.

The first regression was calculated predicting individuals' use of mobile technologies based on the information-seeking influencers. The regression equation was not significant $F(9,173) = 1.86, p = .06$ with an R^2 of .09. Taken as a whole, the information-seeking influencers are not significant predictors of mobile technology use. The second regression was calculated predicting individuals' use of the internet for information seeking based on the information-seeking influencers. The regression equation was not significant $F(9,173) = 1.68, p = .10$ with an R^2 of .08. The information-seeking influencer variables are not significant predictors of mobile technology use. The third regression was calculated predicting individuals' use of organizational intranets for information seeking based on the information-seeking influencers. The regression equation was not significant $F(9,173) = 1.79, p = .07$ with an R^2 of .09. The information-seeking influencers are not significant predictors of organizational intranet use. The fourth regression was calculated predicting individuals' use of email for information seeking. The regression equation was not significant $F(9,173) = 1.04, p = .41$ with an R^2 of .05. The information-seeking influencers are not significant predictors of email use for information seeking.

The fifth regression equation was calculated predicting individuals' use of landline phones for information seeking based on the information-seeking influencers. The regression equation was significant $F(9,173) = 2.33, p < .05$ with an R^2 of .11. The information-seeking influencers are significant predictors of landline phone use for information seeking. Specifically, need for control over others ($p < .05$), intrinsic

motivation ($p < .05$), and learning orientation ($p < .01$) were significant predictors of landline use.

Type of Career Transition Predicting Information-Seeking Tactics

To test hypothesis 1a, five one-way ANCOVAs were conducted to discover any statistically significant differences between individuals making occupational, job, and education to paid career changes based on the tactics used in information seeking (overt, observing, indirect, third party, and testing). These were completed while controlling for the individual-level variables of uncertainty tolerance, need for control over self, need for control over others, intrinsic motivation, learning orientation, desire to set goals at work, coworker influence, and the number of workplace transitions they have taken part in.

One-way ANCOVAs revealed no significant differences in overt tactics $F(2,171) = .91, p = .40, \eta^2 = .01$; observing tactics $F(2,171) = .68, p = .51, \eta^2 = .008$; indirect tactics $F(2,171) = .27, p = .77, \eta^2 = .003$; and testing tactics $F(2,171) = 2.062, p = .13, \eta^2 = .02$ between the three different types of job transitions. A one-way ANCOVA revealed a significant difference in third party tactics $F(2,171) = 4.138, p < .05, \eta^2 = .05$ between the three different types of job transitions. Post-hoc tests revealed there was a significant difference between individuals making job transitions and those making education to paid transitions ($p < .01$) using third party tactics. Hypothesis 1a was partially supported. For full results of the ANCOVAs performed for H1a, see Table 4.7.

Table 4.7 Summary of ANCOVAs for H1a

Tactic	Sum of Squares	df	Mean Square	F	Partial Eta Squared	Power
Overt	.58	2	.29	.91	.01	.21
Error	53.75	171	.31			
Observing	.57	2	.29	.68	.01	.16
Error	71.42	171	.42			
Indirect	.34	2	.17	.27	<.01	.09
Error	110.55	171	.65			
Testing	1.66	2	.83	1.28	.02	.37
Error	79.35	171	.46			
Third Party	6.15	2	3.08	.17*	.05	.73
Error	127.11	171	.74			

* $p < .05$

Type of Career Transition Predicting Information-Seeking Sources

Testing hypothesis 1b, I conducted six one-way ANCOVAs to determine if there were statistically significant differences between individuals making the three types of transitions on the sources they used for information seeking (external, written, peers, supervisors, subordinates, and other organizational members). The ANCOVAs were completed while controlling for the same individual-level variables as used in testing hypothesis 1a (uncertainty tolerance, need for control over self, need for control over others, intrinsic motivation, learning orientation, desire to set goals at work, coworker influence, and the number of workplace transitions they have taken part in). One-way ANCOVAs revealed no significant difference in written sources $F(2,172) = 1.57, p = .21$,

$\eta^2 = .02$; peers $F(2,172) = 1.73, p = .18, \eta^2 = .02$; supervisors $F(2,172) = 1.52, p = .22, \eta^2 = .02$; and other organizational members $F(2,172) = .28, p = .76, \eta^2 = .003$.

One-way ANCOVAs revealed a significant difference in external sources $F(2,172) = 4.99, p < .01, \eta^2 = .01$ and subordinates $F(2,172) = 3.41, p < .05, \eta^2 = .01$ between the three types of transitions. Post-hoc analyses for the external sources variable revealed there was a significant difference between individuals making job transitions and those making occupational transitions ($p < .01$). The results also indicated a difference between those making job transitions and education to paid work transitions. While this difference was not significant at the .05 level, it was very close ($p = .06$), and should be considered in a study that was underpowered due to sample size. The post-hoc analysis for the subordinates variable revealed significant differences between job and occupation transitions ($p < .05$) and between job and education to paid transitions ($p < .05$). These results indicate partial support for hypothesis 1b. For full results of the ANCOVAs performed for H1b, see Table 4.8.

Table 4.8 Summary of ANCOVAs for H1b

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared	Power
External	13.31	2	6.65	4.99**	.06	.81
Error	229.50	172	1.33			
Written	2.67	2	1.34	1.57	.02	.33
Error	146.52	172	.85			
Peers	1.22	2	.61	1.73	.02	.36
Error	60.80	172	.35			
Supervisors	2.26	2	1.13	1.51	.02	.32
Error	128.24	172	.75			
Subordinates	12.32	2	6.16	3.41*	.04	.63
Error	311.24	172	1.81			
Other Organizational Members	.80	2	.40	.28	<.01	.09
Error	245.74	172	1.43			

* $p < .05$

** $p < .01$

Type of Career Transition Predicting Communication Media Used

To test hypothesis 1c, five one-way ANCOVAs were conducted to determine any statistically significant differences between the types of transitions and the five communication media used for information seeking (mobile, internet, intranet, email, landline phone). As with the prior hypotheses, the ANCOVAs were conducted while controlling for the individual-level variables of uncertainty tolerance, need for control over self, need for control over others, intrinsic motivation, learning orientation, desire to

set goals at work, coworker influence, and the number of workplace transitions they have taken part in. The ANCOVAs revealed no significant differences for any of the dependent variables: mobile $F(2,172) = .55, p = .57, \eta^2 = .01$; internet $F(2,172) = 1.32, p = .27, \eta^2 = .02$; intranet $F(2,172) = .02, p = .98, \eta^2 < .01$; email $F(2,172) = .03, p = .97, \eta^2 < .01$; landline phone $F(2,172) = .13, p = .88, \eta^2 < .01$. Because no dependent variables were significant, hypothesis 1c was rejected. For full results of the ANCOVAs performed for H1c, see Table 4.9.

Table 4.9 Summary of ANCOVAs for H1c

Communication Media	Sum of Squares	df	Mean Square	F	Partial Eta Squared	Power
Mobile	1.51	2	.75	.55	<.01	.14
Error	234.14	172	1.36			
Internet	.67	2	.34	1.32	.02	.28
Error	43.60	172	.25			
Organizational Intranet	.06	2	.03	.02	<.01	.05
Error	318.08	172	1.85			
Email	.05	2	.02	.03	<.01	.05
Error	157.39	172	.92			
Landline Phone	.51	2	.26	.13	<.01	.07
Error	340.07	172	1.98			

TYPE I AND TYPE II ERROR

In quantitative studies, opportunities exist for errors in the results. The two types of errors that might occur are labeled as type I error and type II error (Pituch & Stevens,

2015). Type I error is the probability that a researcher will reject the null hypothesis (H_0) when it is true. This is set through the level of significance chosen at the outset of a study and indicated as the alpha (α) level. Generally a value of .05 has been determined as an acceptable level of significance. In other words, researchers are willing to take a 5% chance of rejecting the null hypothesis when it is indeed true. Pituch and Stevens (2015) note that there are instances when it is appropriate to set the alpha level lower (.10 or .15), like when there would not be serious consequences for making an error or when the sample size is small. Conversely, there are instances when the alpha level should be higher (.001), such as in medical tests where rejecting a true null hypothesis can lead to life or death outcomes. In this study, all significance levels were set to .05 to reduce chances of committing a type I error and to use the generally accepted level within social science research.

The other form of error encountered in research is a type II error. This error is the probability of accepting the null hypothesis when it is false and is indicated through the β value. Type II error is inversely related to type I error, increasing as we increase control for type I error. Researchers must find a balance between controlling for both type I and type II error in their experimental design. One important way to reduce type II error is to increase the sample size. To determine an adequate sample size, I used a power calculation to avoid making a type II error.

Sample Size and Power

Power calculations help the researcher to ensure their sample has enough individuals to correctly reject a false null hypothesis (Keith, 2006). The power of a statistical test depends on three things: the alpha level, sample size, and the effect size (Pituch & Stevens, 2015). Post-hoc estimation of power is important in avoiding errors in the interpretation of results. (For the power levels of each ANCOVA, refer to Tables 4.7, 4.8, and 4.9.) The standard threshold for power is .80 (Cohen, 1988), which was surpassed by only one of the ANCOVAs. The power for all of the ANCOVAs ranged from .05-.81. This means there is a chance that a hypothesis was incorrectly accepted. Knowing this is a possibility, I still decided to accept the findings and proceeded to analyze the results of the study.

CHAPTER SUMMARY

The purpose of this research was to further understand the information-seeking behaviors of individuals making career transitions. To answer the four research questions and three hypotheses, I performed statistical tests on the data including demographic analyses, regressions, and ANCOVAs. Through this process, there were a number of significant findings that will be discussed in the discussion chapter. The results indicate that there are some information-seeking behaviors that differ based on the type of transition an individual employee goes through. Further, the information-seeking behaviors are predicted by a number of the information-seeking influencers identified in this study.

In the next chapter, I focus on the significant findings from this study and discuss their contribution to the organizational literature on workplace transitions and information seeking. These results provide an important starting point for research looking at the behaviors of individuals making different types of transitions in the workplace, which are discussed in detail. Finally, I cover the limitations that were presented in the collection and analysis of this dataset.

Chapter 5: Discussion

Past research in organizational socialization does not give sufficient attention to the various types of transitions made by individuals in the workplace. Numerous studies have considered the job transfer process (see Kramer, 1989, 1993; Kramer & Noland, 1999), but they do not focus on larger occupational transitions—movement to a new occupation not typically in a career progression (Rhodes & Doering, 1983). As individuals are increasingly making transitions between jobs and occupations, it is important that scholars understand the decisions made by those in new positions. Following Berkelaar's (2013) charge that the interconnectedness of the workforce should cause scholars to think about socialization from perspectives other than a single upward career, this study examined communicative behaviors of individuals making various types of career transitions. Specifically, this study addressed the information-seeking behaviors of workplace newcomers to enlighten scholars and practitioners of their behaviors.

I begin by providing three brief vignettes of hypothetical transitions using the findings from this study. I continue by giving an overview of the key findings and contributions to the information seeking and organizational socialization literature. Next, I connect these findings to the information-seeking model proposed by Morrison (2002) and demonstrate the contribution of this research. Finally, I review the limitations of this study, provide steps for future research, and discuss practical applications for human resources practitioners.

THREE HYPOTHETICAL VIGNETTES

Before discussing the key findings of this research, a short hypothetical vignette of each type of transition is presented. These short stories highlight the findings of this study and apply them to a transition scenario. When possible, I have used the averages and frequencies of people making transitions in each category to create the “average” individual transitioning. While the examples are fictional, they are intended to create a picture of each type of transition. These vignettes will be referenced throughout the discussion to better explain the transition experiences of organizational newcomers.

Owen’s Occupational Transition

At 31 years old, Owen decided he needed to make a change in his occupation. After graduating college nearly ten years ago with his B.A. degree, he had a tough time finding a job and took a role as a front-desk clerk for a local advertising agency. This agency turned out to be a very good place for Owen and he was promoted to various administrative roles within the company, eventually landing a job as the administrative assistant for the president of the company. This is when Owen decided he wanted a new challenge, an occupational change. He was able to demonstrate the organizational and communication skills he used as an administrator to land a sales job at a local IT firm. This company specialized in network components and needed someone who was able to work well with people on their sales team. This was Owen’s first occupational transition and considering that his sales job responsibilities are very different from his administrative tasks, he will need to learn this new occupation.

Jill's Job Transition

Jill is 37 years old and has been working for an engineering firm in Minneapolis, MN, for about six years. After struggling through many cold Minnesota winters, Jill decides that she wants to work for another firm in a warmer climate. Jill has her B.S. degree in engineering and has an excellent resume built of the three jobs she has held since graduation. She enjoys her field and wants to keep doing similar work. She finds a new firm in Arizona and is quickly interviewed and hired for a job that is very similar to her past job in Minneapolis. The biggest part of the transition is the change in climate and city, not the job itself. Jill will need to learn the processes of this new company, but she is comfortable with the job tasks, so she is not worried about that part of the transition.

Elaina's Education to Paid Transition

Now that she has just completed her B.A. degree at a local university, Elaina is moving into her first full-time paid job. She is 22 years old and she has some work experience, but it has been part-time. Her degree is in education, and she plans to be a second-grade teacher at a local elementary school. Because this is her first major career, she does not have any experience making prior career changes. Elaina knows how to be an effective student and earned a high GPA while in school. The most difficult part of this transition will be applying the knowledge she learned to her classroom of second graders. She looks forward to this challenge and hopes to learn as much as she can from her coworkers.

KEY FINDINGS AND CONTRIBUTIONS

The first contribution of this study focuses on identifying the tactics, sources, and communication media used when people seek information during career transitions. I examined multiple types of transitions and the impact of other information-seeking influencers, and I detail how these findings are important as people decide how to seek information. The results of the study indicate that individuals going through career transitions seek information in slightly different ways depending on their personal traits and the type of transition they are going through. Thus, employees and employers alike will benefit from this greater understanding of the unique behaviors employees use to seek information in the workplace.

Information-Seeking Behaviors Change Based on Transition Type

This study found a significant difference between individuals making job transitions and those making occupation or education to paid transitions when looking at subordinates as a source of information. Workplace newcomers making job transitions had significantly higher reliance on subordinates for information compared to occupational or education to paid transitioners. Because there was a difference between both categories, this indicated that people making job transitions, such as Jill in the hypothetical vignettes, found value in seeking information from their subordinates. This finding adds to the IMEIS due to the addition of the type of transition in the model. While the original model included sources of information, the addition of transition type expands the utility and comprehensiveness of the model. Individuals making job

transitions (moving up or laterally within the same line of work) might have a greater number of subordinates whom they rely upon for information. In a study of workplace relationships and employee information quality, Sias (2005) found that leaders require quality information to perform well in the workplace and they often rely on subordinates to provide this information. Individuals making job transitions are different from those making an occupational transition or entering the workforce for the first time following formal education. In occupational and education to paid transitions, there is a greater chance that the newcomer will start at an entry-level position. Because these positions do not typically include subordinates to manage, they might not have subordinates as an option for a source of information. In the vignettes, as Jill was moving from one engineering firm to another, and due to her 15 years in the industry, she will be overseeing a number of other managers in this new firm. Based on the findings of this study, Jill will be more likely to rely on these individuals as sources of information than her transitioning counterparts.

This study also highlighted a significant correlation between newcomers using subordinates and other organizational members a source of information. This finding helps explain the connection between individuals making job transitions and a greater reliance on subordinates as sources. People making job transitions might even move within the same company, which means the job transitioner already has a network of other organizational members and colleagues whom they can go to for information. If the job transition is to a new company, professional social networks (e.g., LinkedIn) make it easy to connect with other organizational members (Skeels & Grudin, 2009).

Thus, as individuals starting a new job are comfortable reaching out to others in the organization for information, they also seem to be comfortable talking to their new subordinates.

Third-Party Tactics for Information Seeking

When focusing on the tactics used to seek information, there were no significant differences between people going through the three types of transitions. However, there was a significant difference in the third-party tactic use based on the type of job transition. Third-party tactics are defined as the newcomer using a secondary source like a co-worker to seek information rather than their supervisor (Miller & Jablin, 1991). Miller and Jablin (1991) suggest this might happen if the newcomer is not comfortable asking their supervisor or if the supervisor is unavailable and the information needed is timely. It also might happen due to a proximal convenience or for temporal reasons (if it is faster to ask the third party instead of directing an overt question to a supervisor).

Results from this study indicated that individuals making education to paid transitions used a third-party tactic significantly more than individuals making job transitions. Elaina, from the vignette that framed this discussion, is beginning her career as a second-grade teacher and will likely rely on her fellow instructors to help learn the information required for success in her new school district. To further understand why transitioners like Elaina differ in their use of third-party tactics, it is first important to remember how each group is identified. An individual making an education to paid transition, such as Elaina, is someone who is entering the workforce immediately after

being a student. While this study did not require these students to be graduates in the traditional college age of 18-24 years old, the average age of this group of workers was about 27 years old, the youngest of the three transition types. On the other hand, individuals making a job transition were about 37 years old and had already made two or three job changes in their career. Understanding the types of people going through each of these transitions helps us begin to speculate why this finding is important.

Based on the results of this study, it appears that as individuals move further into their careers, after their first transition post-education, they rely less on third parties as a tactic for information seeking to manage their uncertainty. This finding helps expand upon the IMEIS by looking at information seeking at different stages, through different types of transitions, in an individual's career. This is consistent with past research that indicates individuals entering the workforce directly after their formal education are emerging from a period in their life when they often rely on seeking information from those around them. A study by Head and Eisenberg (2010) found that when college students are looking for information on everyday life, 87% of students relied on friends. Further, when these students needed help or advice evaluating information, 61% turned to friends and/or family (Head & Eisenberg, 2010). Social media sites are a primary communication technology used by college students when they are looking for information. A recent study with 833 participants indicated that 95.7% of respondents used social networking sites as an information source (Kim, Sin, & Yoo-Lee, 2014). With tools on social media that make it easy for classmates and friends to connect, it makes sense that individuals would turn to their friends when they need to find some type

of information. Thus, when education to paid work transitioners like Elaina enter the workforce, they are accustomed to using third parties for information-seeking activities. In addition to the differences found based on the transition type, this study also contributes to the literature on the influencers for newcomers to seek information.

Influences for Information Seeking

Organizational intranets provide a platform for employees to interact and collaborate within the technological boundaries of an organization (Kim, 2010). This study indicates that newcomers often use corporate intranets when seeking information after starting a new job. When paired with studies like those of Meroño-Cerdan, Soto-Acosta, and López-Nicolás (2008), which indicated that intranets can have a positive effect on organizational performance, this result seems promising. However, only 29% of organizations rate the functionality of intranet tools as “good” or “very good” (Mills, 2010). Thus, while intranets are not often viewed as functional, newcomers tend to use them when seeking information after joining an organization. This could be because intranets often contain onboarding materials like the employee handbook and other training information that newcomers are required to review.

Coworker Influence

Newcomers are often using corporate internets, and much of the influence to use this technology comes from coworkers. In this study, personal devices like mobile technologies and the internet were not significantly affected by coworkers, but

organizational intranet use was impacted by coworkers. This finding can be supported by Stephens and Sætre's (2008) work as well as that from the Social Influence Model (Fulk et al., 1990) demonstrating social variables influencing media use. These studies suggested that overt comments by coworkers, group norms, and observations of others using media are influential in the decisions of which media should be used if individuals decide to reduce uncertainty through information seeking. The results of the current study indicate that coworkers are influential in the decision to use organizational intranets. While it is beyond the scope of this study to determine *how* these coworkers are influencing newcomers, the results of this study demonstrate the usefulness of information that can be found through this source. Organizational intranets can also be a source of connection where group culture is formed (Bennett, 2014). If newcomers recognize the use of intranets as a group norm, results of this study indicate that they will be more likely to use this tool as a way to connect with others while they seek information.

Interestingly, coworker influence did not affect personal devices (like mobile technology or email use) in the same way as corporate intranets in this study. This is a meaningful result because it appears that newcomers are not as likely to be influenced in the use of their personal communication tools at work for information-seeking purposes. With the proliferation of personal mobile devices in the workplace, many organizations view them as a distraction. In fact, 79% of human resource managers say that mobile technologies create unnecessary disruptions at work and 42% have received complaints about them creating distractions in meetings (Goudreau, 2011). This stigma against using

personal mobile devices might be part of the reason that newcomers are initially more hesitant to use this communication medium when seeking information as opposed to organizational tools like corporate intranets. In a study investigating social influence and mobile phone use, Campbell and Russo (2003) generally supported the claim that social influence plays a role in perceptions and uses of mobile phones. The current study indicated that coworkers might play a role in influencing mobile phone use in the workplace, but the influence is to avoid using it as a source of information. In fact, there might also be other influences beyond the scope of this study that impact the use of personal technologies at work.

Individual-Level Influencers

The individual-level influencers in the IMEIS (Morrison, 2002) provide an important basis for the decisions of how to seek information. There were a few significant individual-level influencers that played a role in how employees chose to use landline phones for information seeking. Specifically, individuals who have a greater need for control over others, motivation, and higher learning orientation are predictive of greater landline use, even as landline use was the lowest-used communication medium of all that were tested in this study. Of the communication media operationalized in this study based on the IMEIS, landline phones were the most synchronous. Synchronous communication occurs when the dialogue is real-time between two people and can happen face-to-face or via technology, such as by phone. While mobile phones were also considered in this study, their features include texting, using apps, and emailing, while

landline phones are restricted to calling. Synchronous communication tools allow for more direct interaction by providing immediate feedback (Beebe, Beebe, & Ivy, 2016). Newcomers are strategic in their information-seeking behaviors and will try to use methods that minimize the effort and social costs required (Morrison, 2002). As the IMEIS model suggests, there are many individual-level factors that contribute to decisions to seek information. If an individual has a greater desire to control others, this communication medium might be the best choice because the person who the information is being sought from will need to reply without much time to think about their answer and they will provide a faster response. For example, if a newcomer does not understand an office protocol and wants to get someone else to help clarify, they might call them rather than emailing them because it will elicit a faster reply that is more direct. This might be seen as a way of controlling the conversation and getting a response faster than by another, less synchronous, communication medium.

Along a similar line, I was surprised to find that the individual-level influencer of *tolerance for uncertainty* did not correlate any of the other variables, except indirect information-seeking tactics. This correlation was negative, indicating that as uncertainty tolerance decreased, indirect tactics for information seeking increased. Because UMT is based on the appraisals made before reducing uncertainty, this finding indicated that individuals might be making appraisals and their low tolerance for uncertainty causes them to ask around the workplace for information. Besides this significant correlation, all other variables were not correlated with tolerance for uncertainty, warranting future research on this individual-level factor.

This study also revealed that people with a higher learning orientation were more likely to use landlines. A learning orientation is a concern for, and dedication to, developing one's competence (Dweck, 2000; Gong et al., 2009). Those with a higher learning orientation are more apt to take on challenges in the classroom and workplace to increase their overall competence on a subject. The connection between learning orientation and landline use found in this study suggests that regardless of the most common communication media for seeking information, if someone has a high desire to learn, he or she will use the most direct and synchronous tools available. Taken in conjunction with the higher individual-level motivation, this finding suggests that when an individual is motivated to learn from others around them, he or she will use a direct and synchronous communication medium, even if it is less-frequently used than other communication media.

Newcomer's Need for Information

One of the strongest correlations in this study was between felt need for information and the individual-level influencers of "learning orientation" and "self-set goals." This finding reinforces the aspect of the IMEIS indicating individual-level influencers lead to felt need for information. Felt need for information is the desire of a newcomer to seek information. This variable included statements such as "I ask for information to improve my knowledge and capabilities" and "I ask for information to learn how I can master tasks." When participants strongly agreed with these statements, it indicated that they had a strong desire to seek information. The IMEIS model

(Morrison, 2002) suggests that the individual-level influencers play a role in creating an individual's felt need for information. This study also demonstrated significant correlations between felt need for information and the individual-level influencers of motivation and need for control over self. Considered together, the results from this study confirm the correlation between multiple individual-level influencers and the felt need for information.

The connection between individual-level influencers and felt need for information is seen across a variety of studies. Notably, in their meta-analysis of antecedents and outcomes of feedback-seeking behavior, Anseel, Beatty, Shen, Lievens, and Sackett (2015) stated, "individuals with a high learning orientation and an external feedback propensity seek feedback more frequently" (p. 336). This finding emphasized the connection between a desire to learn and the desire to seek information. Similarly, Ashford and Black (1996) found that individuals with a high desire for control reported more information-seeking behaviors. The body of information-seeking literature consistently shows the connection between individual-level influencers and the newcomers' felt-need for information. This study is consistent with past findings and supports these important links in the process of information seeking.

Frequency of Tactics, Sources, and Communication Media Used

One purpose of this study was to understand the information-seeking behaviors of newcomers in the workplace. By looking at the frequencies of the tactics, sources, and communication media used in the information-seeking process, I was able to better

understand newcomer behavior. These information-seeking behaviors were identified by Morrison (2002) in the IMEIS. The frequencies of these variables are important in recognizing the behaviors of the current workforce as they make career transitions.

Tactics for Information Seeking

This study found overt tactics as the most commonly used for seeking information across all three types of transitions. This finding supports Miller's (1996) past research stating newcomers used overt and observation tactics more frequently than other tactics. However, this study extends these findings to the various types of career transitions. Miller and Jablin (1991) suggest that newcomers might gravitate toward overt tactics for three primary reasons: these tactics are efficient when requesting specific information, they provide a chance to immediately resolve ambiguity in understanding, and they might provide opportunities for relational development that could be beneficial for future information seeking (Berger & Bradac, 1982). As Moring (2017) highlights, this might lead to lending the newcomer the positive appearance of an engaged and interested new employee in the workplace.

Newcomers who use overt information-seeking tactics do so by asking specific questions without trying to disguise their intentions. In this study, items that measured the overt dimension of information seeking included “[Going] directly to my supervisor and [asking] for information about the matter” and “[asking] specific, straight to-the-point questions to get the information I wanted.” These items highlighted what Morrison (1995) called “active” information seeking, as opposed to “monitoring.” Monitoring is

an unobtrusive observational method like the observing or indirect methods, which were the second and fourth most common tactics used by newcomers in this study. While this study did not find monitoring to be the most commonly used tactic for information seeking, Morrison (1995) suggested that individuals usually preferred to engage in monitoring over active information seeking. This might be due to the fact that there are social costs to active information seeking, such as appearing bothersome or incompetent in job tasks. Additionally, newcomers might be looking for specific information related to their job tasks, which requires a direct question of a supervisor or other employee. Because the type of information (i.e., about job tasks, not about job tasks) was not a variable considered in this study, future research might further pursue the link between tactics for information seeking and the type of information sought.

When comparing the tactics used between the different types of transitions, this study did not reveal significant differences. Across all three transition types, results indicated that individuals were most likely to use overt tactics when seeking information followed by observing, third party, indirect, and testing. While the means varied slightly for the different transition types, they all followed the same order from greatest to least. The least common tactic for information seeking in all three of the transition types is the testing tactic. This tactic involves bothering someone to see how they respond (Miller, 1996). Two examples of this tactic directly from the survey include “intentionally ‘messing up’ on something at work to see how a supervisor would respond” or “ignoring a rule to see how a supervisor would react.” As they are worded, these questions indicate a mischievous or rebellious behavior to understand or test the limits of the workplace

rules and guidelines. Miller and Jablin (1991) propose that newcomers are likely to use these types of tactics only when they anticipate the consequences as minimal and when they do not believe there are other less costly means by which they can obtain the information. This study reinforces this proposition by Miller and Jablin (1991) as newcomers seem to resort to testing tactics the least of all the tactics.

Sources for Information Seeking

For all three transition types, the most common source of information is “peers and coworkers.” This finding is interesting considering the vast body of research suggesting the supervisor-subordinate relationship as the most important relationship in the workplace. Studies indicate the quality of supervisor-subordinate relationships leading to higher job satisfaction (Stringer, 2006) and workplace motivation (Richmond & McCroskey, 2000). These, and other similar findings, have led many organizational scholars to state that the supervisor-subordinate relationship is the most important relationship in the workplace. While that relationship might be important, this study reveals that employees rely more on peers when seeking information in a new work environment. Though this study was not longitudinal, Callister et al. (1999) studied the information-seeking process over time and found that peers as a source of information declined over time in the company and supervisor inquiry remained relatively stable. This study supports the finding that information seeking from peers is initially high when a newcomer joins an organization. If this study were to expand longitudinally, its

findings might mirror those of Callister et al. (1999) with a change from peers to supervisors as the primary source for information.

Using peers as a source of information after occupational transitions fits closely with the finding from this study that individuals use third-parties as tactic for information seeking. As stated previously, third-party tactics include “using individuals besides the supervisor for information seeking in the workplace.” This study found a significant difference between those making education to paid transitions and those making job transitions based on their use of third parties. When combining this difference based on the type of transition with the sources used, it seems that recent college graduates rely heavily on peers in the workplace when they are initially seeking information. Again, this might be due to their experience of a heavy reliance on peers when seeking information during their recent life-stage in education, which immediately preceded their job. While peers were the most common source of information across all types of transitions, external sources were the least common among newcomers.

In this study, I found the least common source of information for new employees was external sources, which included individuals like friends outside of work and family members. This indicates a shift that takes place over time as individuals shift away from the stages of vocational anticipatory socialization (Jablin, 2001). Two of the five primary sources during vocational anticipatory socialization are family and friends (Jablin, 2001). While this process happens throughout childhood and into young adulthood, the findings from this study indicate that these individuals are not often sought after as information sources once a young adult begins their career. This could partially be explained by the

difference in careers between parents and their children. A recent study using Facebook data looked at 5.8 million parent-child pairs found that only 5% of children share an occupation within the same category as their parents (Adamic & Filiz, 2016). With such small overlap in occupations between parents and children, newcomers might find it difficult to go to a parent and ask for information about a specific job or career.

While there was not a significant difference between the transition types based on use of external sources, those making occupational transitions did use external sources more than people engaged in job or education to paid transitions. There could be a number of reasons for the higher reliance on external sources for those making occupational transitions. One reason could be a friend or family member who suggests the individual try a new career. Another reason could be observing a friend who enjoyed his or her job and the individual deciding to try something new. Though this is beyond the scope of this study, it provides interesting avenues for future research on the information-seeking behaviors of newcomers. While the sources of information help us understand who a newcomer uses to seek information, the communication media explains what technologies these newcomers use to seek information.

Communication Media Used for Information Seeking

In this study, I included communication medium as an outcome variable. The internet was the most often used communication medium by all three types of transitioners. This is consistent with a recent Gallup poll that estimated 80% of full-time U.S. workers use a smartphone with access to the internet, 87% use a computer, and 49%

use a tablet (Harter, Agrawal, & Sorenson, 2014). Altogether, 96% of American workers use at least one type of internet-connected device (Harter et al., 2014).

With high rates of access to the internet at work, employees are able to use the internet for work-related and for personal online communication (POC). POC refers to “communication directed to members in their non-work-related interpersonal relationships, mostly friends and family members...” (Jian, 2013, p. 23). While different organizations take different approaches to curtailing (or encouraging) POC, today’s workers are often balancing multiple personal and organizational relationships simultaneously, using the internet. Findings from this study add to the current body of information-seeking literature indicating that the internet is the most frequently used communication media by newcomers to an organization. Regardless of the type of transition, newcomers turn to the internet for job-related information.

Results from this study indicated that email is the second most often used communication media for all three of the transition types. When seeking information at work, email is a convenient way for newcomers to find information from people both internal and external to the organization. The average worker spends 28% of their work week reading and responding to email (Chui et al., 2012). This number represents a steady increase since email was introduced as a communication tool. The increasing use of email in the workplace has even caused workers to feel email overload, which has led to burnout and a decrease in work engagement (Reinke & Chamorro-Premuzic, 2014). While too much email use can become problematic, newcomers see value in reaching out to others through this medium for information-seeking purposes. Sending a quick

question or asking for clarification by email can provide a quick and direct response to organizational newcomers.

The decision to use a specific communication medium for information seeking is partially influenced by contextual social factors in the workplace (Fulk et al., 1990). In their social influence model, Fulk et al. (1990) suggested that an individual's experience with a communication medium in the past helped influence the medium they choose to use when presented a decision in the future. In conjunction with Fulk's (1990) findings, this study finds that individuals are influenced to use the internet and email as one of the primary communication media for information-seeking behavior.

Connections to The Integrated Model of Employee Information Seeking

As newcomers join an organization, they are likely to experience uncertainty, resulting in a desire for information to reduce uncertainty (Miller & Jablin, 1991). Morrison (2002) suggested that newcomers are strategic in their information-seeking behaviors and try to maximize the benefits while minimizing effort and social costs to retrieve the information sought. There is a significant amount of research on newcomer information-seeking strategies (see Kramer, 2010; Miller, 1996; Miller & Jablin, 1991; Morrison, 1993; Morrison, 2002; Morrison & Vancouver, 2000), and Morrison (2002) determined that the literature is "somewhat fragmented, and research on outcomes of information seeking has yielded inconsistent results" (p. 235). The Integrated Model of Employee Information Seeking (IMEIS) proposed by Morrison (2002) provided the basis for this research and many of the hypotheses and research questions. While a full version

of the model was not tested using structural equation modeling in this study, a number of the findings in this study help add clarity to the information-seeking process.

The first connection between this study and the IMEIS is the addition of the “type of transition” to the understanding of information-seeking behaviors. One of Morrison’s (2002) explicit calls for future research based on her proposed model entails “how information seeking by experienced members of an organization differs from information seeking by newcomers” (p. 238). She also mentioned that research on information seeking related to changes in career stage is understudied and warrants future research. For this reason, I specifically focused on three major types of career transitions in this study and began to connect them to a few of the ways individuals make decisions for how to seek information as proposed by Morrison (2002). There were a number of significant findings based on the differences between types of career transitions made. There were also a number of findings that were nearly significant, but above the $p < .05$ level. This is indicative of the importance of including “type of transition” as a factor in how people seek information. Ideas for how this can be further implemented in research will be discussed in the future directions section of this chapter.

Another area where this study can be connected to Morrison’s (2002) IMEIS is the addition of communication medium as a decision relating to how to seek information. In her proposed model, she included “tactic,” “source,” and “timing” as the three decisions relating to how one should seek information. As technology plays a role in almost all communication in the workplace, it was important to add technology as a variable. Even the most basic visual depictions of human communication, such as the

classic model by Shannon and Weaver (1949), include the channel of communication. Channels are the pathways through which messages are sent, including face to face, print, and technologically mediated (Beebe et al., 2016). Morrison's (2002) conceptualizations of source and tactic did not adequately represent the channels that might be chosen to seek information after making a career transition. Based on the number of significant results and findings in this study, I believe this is a variable that should be further considered as it plays an important role in the information-seeking process.

Findings from this study also demonstrate the need to include communication medium in the model due to changes in the workplace since the introduction of the IMEIS model. The technologies included in the scale measuring communication medium are constantly changing and as individuals adapt to their use and acceptance. In 2002, when the model by Morrison was developed, a Pew Internet study found that 62% of employed Americans had internet access, and nearly all of those (98%) used email at work. However, 60% of the people using email at work received only 10 or fewer email messages (Fallows, 2002). This is compared to an estimate that in 2015 employees receive an average of 84 emails per day (Radicati, 2011). This represents an increase of eight times in the amount of emails received per day in the business setting. Since the model was created, there have also been fluctuations in other workplace technologies. Interestingly, employees still value landline use highly, with 35% of workers saying landlines are "very important" to their work, compared to 24% who say that mobile phones are "very important" (Purcell & Rainie, 2014). Due to increases in certain workplace technologies and decreases in others, I felt that it was important to test this

variable that was not included in the original model. By incorporating this variable, it emphasizes the importance in the technologies used as a channel of communication in seeking information.

While this study did not use structural equation modeling to propose revisions to the Morrison's (2002) IMEIS, there were a number of clear connections to the model. Considering the "type of transition" with the model adds an element that was otherwise understudied in the information-seeking literature. Adding the "communication medium" as a decision relating to how a newcomer seeks information expands the understanding of technology use in this process. Results from this study indicate connections between these additional variables and the IMEIS, thus warranting future research to make further connections.

LIMITATIONS AND FUTURE DIRECTIONS

Revealing more about the information-seeking behavior of newcomers in the workplace is one of the primary benefits of this study. These results provide meaningful insights for both newcomers to a workplace and to human resource professionals seeking to train and socialize newcomers. Even so, this study has a number of limitations. This section begins by describing the limitations of the survey method, sample, and analysis procedures. While there are a number of limitations, I believe they lead to future avenues to pursue this line of research, which are discussed at the end of this section.

Current Study Limitations

One of the first limitations of this study was the high number of surveys that were incomplete and thus removed from data analysis. Of the 296 surveys started, only 199 were considered in the final analysis. This 26% dropout rate is higher than Hoerger's (2010) statistic stating that about 6% of participants leave initially after the consent form and 10% discontinue the survey in a later portion. This dropout rate is concerning and could have resulted in a less inclusive survey population. The dropout rate could be due to unclear information before the survey began indicating the qualifications to take the survey. When the survey was shared with participants via social media or email, the directions indicated that it was for "people that have started full-time at a new company/organization in the past two years." Despite these directions, and the statement in the consent form stating the survey was about their transition to a new organization, participants may have missed these guidelines. Only after beginning the survey would they have realized it did not apply to them given their employment situation, causing them to withdraw and discontinue. I believe this could be remedied by creating a short qualification survey at the beginning that determined if an individual was eligible for the survey before he or she began answering any of the survey items. Due to the specific type of respondent required for this survey, I also could utilize survey panels like Amazon's MTurk or Qualtrics Panels to specify the type of respondents, resulting in a decreased dropout rate.

Another limitation in this study might have been the length of the overall survey. The entire survey had 104 individual items. Most items were Likert-type or semantic

differential scales in addition to three short answer questions asking people for the most common ways they sought information after starting a new job. While the Likert-type and semantic differential survey items can be quickly answered, a large number of items can cause survey fatigue, where individuals are over-surveyed or have reached survey saturation and thus become nonresponsive (Porter, 2004; Porter, Whitcomb, & Weitzer, 2004). Because surveys today are present in almost all aspects of our lives (i.e., surveys for products we purchase, surveys on satisfaction with customer service, surveys shared on social media platforms, etc.), people can easily become burned out with long surveys. However, Porter et al. (2004) found that when participants are interested in the topic of a survey, they will be less likely to feel survey fatigue. While this survey focused on a recent event in the participant's life, they may have started the survey and realized that they were not interested in thinking about their recent career transition. While every effort was made to find scales with the fewest items, I did not want to sacrifice the quality of the scales used. Future studies could focus on specific aspects of the information-seeking process that newcomers go through in order to reduce the overall length of the survey and provide more direct and relevant questions.

A limitation in all survey research is the potential that the survey participants are fundamentally different from those who do not take the survey (Morgan & Carcioppolo, 2014). Because this study did not focus on a specific industry or type of transition, there was a large potential sample that could have responded to the questions posed, and thus there were many non-responders. To help avoid the bias of non-responders, I could have found individuals who did not take the survey to determine their characteristics. In this

process, I could ask why they did not take the survey (no interest, no time, no incentive, etc.) to see if there were any consistent characteristics among this group. Confirming that the demographics of survey responders and survey non-responders are consistent would help to reduce this potential limitation.

Within the survey instrument, there were a few limitations that might have caused issues in the analysis and interpretation of data. First, as mentioned, there was a mistake in the information-seeking tactic scale (Miller, 1996) where the participants were only provided six levels of response instead of the seven levels in the original survey design. This reduced some of the potential for variation in participant responses and thus made a dataset that was less detailed. Second, the wording on a few of the questions in the information seeking tactics scale (Miller, 1996) might have been confusing and not applicable to organizational newcomers. For example, the item stating “I would ‘mess up’ on something related to my topic to see how my supervisor would respond” might have caused confusion. If the participant did not have a specific “topic” in mind for this question, they might not know how to respond to the item. A number of items in this survey were worded in a similar manner and might have caused some confusion among participants. These survey-level ambiguities are a limitation due to the potential lack of clarity for survey participants. While one can become overly-critical of the work that has been completed, there are also significant contributions in this study that represent potential for future studies of workplace newcomers.

Future Directions for Research

The study of newcomer information-seeking behavior is important for non-entry-level employees as they are becoming more common in the workplace (Kramer & Miller, 2014). This study posed a number of important research questions and had numerous significant findings that contribute to this body of literature, and it demands more scholarly attention. It is especially important in order to support organizational newcomers and the human resource departments that facilitate much of the socialization process. To this end, I propose the following research agenda, based on organizational communication research, to further study the information-seeking behaviors of organizational newcomers.

Collecting Data and Testing the Model

Because Morrison's (2002) Integrated Model of Employee Information Seeking is designed as a model, it would be beneficial to test the model using structural equation modeling (SEM) procedures. SEM overcomes some of the difficulties with multiple regression analysis by focusing not only on the direct effects, but also on the indirect and total effects of a number of variables (Keith, 2006). This type of analysis is being used with greater frequency in the field of communication studies because it assists in testing communication processes (Hayes, 2009). Further, SEM can be used because it provides researchers with a method for quantifying and testing theories and models (Raykov & Marcoulides, 2000). While one of the cardinal rules of statistics is not to infer causality from correlation, the inference of causality can be made in structural equation modeling

(Keith, 2006). Kenny (1979) and Kline (2016) discuss three conditions that must be met before making a valid inference of causality. First, there must be a relationship between the variables considered. Second, there must be time precedence where the cause happens before the effect. Third, the relationship between the variables must be true, rather than spurious. As Keith (2006) suggests, we can often be confident these three conditions are met, but we can never be completely sure, which is what makes research so challenging. In future research, we could ensure these conditions are met to test the overall model and see if it is valid. In a personal email with Dr. Morrison, she let me know that she was unaware of any work that tested this model (E. Morrison, personal communication, Aug. 9, 2015). Thus, further research using SEM to test the overall model would be informative and provide meaningful contributions to the information-seeking literature.

For SEM to provide valid results, it is important that the minimum number of participants is considered for the size of the model. To determine minimum sample size required for the Expanded IMEIS to achieve strong power, an a-priori sample size was calculated (Cohen, 1988; Soper, 2017). To calculate the sample size the following values were required: anticipated effect size (0.1), desired statistical power level (0.8), number of latent variables (5), number of observed variables (20), and the probability level (.05). This returned an estimate of 100 as the minimum sample size for model structure, and 1,599 as a minimum sample size to detect an effect. With 199 subjects in the current sample, I was well below the 1,599 participants required to achieve adequate power to detect an effect. In order to achieve this number, I would either have to collect more data for the dataset or perform bootstrapping. Bootstrapping is a resampling procedure where

the original sample is considered a representative of the population. The procedure randomly draws multiple subsamples of the same size from the given sample which provides the data for the analysis (Byrne, 2013). It is preferable to increase the sample size, so if I chose to test the entire model, I would seek to increase the total number of participants by collecting more data.

Including Additional and New Variables

One way to further this research is to include a number of the variables originally proposed by Morrison (2002), that were not included in the current study. Unfortunately this study could not measure each of the variables in this model, so the most pertinent ones had to be selected. This meant that a number of meaningful variables were not included in this study. For example, the variables in the category of “perceived costs” were not considered in this study. This includes costs like an individuals’ ego, their image, and the amount of effort required to seek the information. For example, a recent study suggested that when individuals are less focused on their ego, they have a greater desire to seek information (Halder, Roy, & Chakraborty, 2017). Depending on how a newcomer views those costs, they might be more or less likely to seek out information in the workplace.

Another set of variables that were not included in this study were a few of the outcome variables at the end of Morrison’s (2002) model measuring the attitudes about the job, increase in knowledge, and job performance. While each of these variables was beyond the scope of this study, they could add meaningful insight into newcomer

information-seeking behavior. For example, there might be connections between the type of transition leading to the decisions relating to how to seek information with a resulting change in job performance. Hypothetically, if a certain type of transition led to a reduction in information seeking and ultimately led to lower levels of job performance, corporate representatives should be interested in determining ways of mitigating this effect. While this is all beyond the scope of this research, it is worth noting that there are many future directions for this line of research by adding a number of the variables Morrison (2002) proposed.

Because the type of information (i.e., about job tasks, not about job tasks) was not a variable considered in this study, future research might further understand the link between tactics for information seeking and the type of information sought. In a 1993 study, Morrison looked at the types of information sought: technical, referent, normative, performance feedback, and social feedback. Her study found that individuals generally used monitoring more frequently than direct inquiry for most types of information, except technical information. This was attributed to the fact that technical information is often more difficult to observe and requires a direct inquiry in order to understand. However, Morrison (1993) concludes her study by stating, “Additional research is needed to determine whether this interpretation is accurate” (p. 582). Future research in this field can focus on the type of information sought along with the type of transition to further understand workplace newcomers.

Another interesting direction for research not originally proposed by (Morrison, 2002) would look at the information-seeking behaviors based on specific industries.

While the purpose of this research was to broadly consider information-seeking behaviors of newcomers, industry-specific research might highlight interesting differences depending on the type of transition. Past research has looked at information seeking in a few industries (i.e., Myers, 1998; Zorn & Gregory, 2005); however, there has not been studies looking at the different types of transitions made within in these industries. This study had a variety of job functions represented in the sample (See Table 3.2), but none had more than 30 participants. Further, the job functions were broad categories that would not be adequate measures of a specific industry. By focusing future research on specific industries, human resource practitioners might be able to specifically adapt their onboarding materials to deliver the most useful information using the best strategies for *their* employees making specific types of transitions.

Transition Experiences of Various Generations

The current workforce is made up of individuals in the baby boomer (born 1946-1963), Generation X (born 1964-1979), and millennial (born 1980-1995) generations (Levit & Licina, 2011). Research focusing on the information-seeking behaviors of different generations in the workplace could be a fruitful avenue for future research. While the individuals surveyed in this study were largely in the millennial generation and Generation X, many baby boomers are still active in the workforce. In fact, baby boomers are increasingly ignoring the standard age of 65 for retirement, and in 2017 32% of American's between 65 and 69 were employed (Steverman, 2017). Many of these individuals are making the decision to go back to work or take on a retirement job to keep

their health insurance, fill their time, or add to their retirement savings. This transition could be considered either a job transition or an occupational transition depending on the change in work tasks. The present study began observing very slight differences in information-seeking behavior based on age, but workers from the older generation were largely overlooked. Future studies looking at the behaviors of newcomers in Generation X and the baby boomers could provide a well-timed resource for human resource practitioners in companies employing large numbers of people in these generations.

In this study, the internet, email, and corporate intranets were the three most common communication media used for information seeking across all three types of transitions. If a study were to specifically recruit individuals in the baby boomer generation, there might be a difference in the preferred media used for information seeking. While many workers in the baby boomer generation have learned how to use technologies in the workplace, it might not be their *preferred* method of information seeking. A study that looked at their preferred method compared to their most common method might provide insight into ways that organizations can support individuals in this generation.

Another idea for a generational study would be looking at the information-seeking behaviors of people re-entering the workforce after retiring. Some individuals might feel like they have to retire at 65 years old due to cultural norms, but then find themselves going back to work after a few years. This might be either to meet financial needs or because they learn that they want some of the same structure in their lives had when working full time in the workforce. Research looking at the re-entry experiences into the

workforce for people in the baby boomer generation could be very timely and important for employers hoping to fill staffing holes with these employees.

In summary, future research on newcomer information seeking that incorporates the type of transition can be beneficial to the body of scholarly research as well as practitioners in human resource development. This study helps provide a starting point for that research, but there are more specific studies that should be conducted to further understand the behaviors of the increasing number of employees making career transitions.

PRACTICAL APPLICATIONS FOR HUMAN RESOURCES PRACTITIONERS

In a dissertation, it is important for one to demonstrate the ability to conduct meaningful research. Through the findings and discussion thus far, I have demonstrated the importance of this research within organizational communication. In an attempt to apply these findings to practitioners working in human resources, this section highlights the practical applications from this research. Human resource managers are most often tasked with leading new employees through the encounter phase of socialization, and today they typically have new employees like Owen, Jill, and Elaina in the same cohort. But, as this dissertation found, employees going through different types of transitions—occupation, job, and education—might need different forms of support. With this in mind, the following three suggestions are written for human resource managers tasked with assisting transitioning employees.

Prepare Subordinates for a New Supervisor

When someone is making a job transition, such as Jill the engineer, this study indicated they have a higher reliance on their subordinates compared to individuals making other types of transitions. This means that human resource managers should make efforts to ensure that the new subordinates have accurate information and can point their new supervisor to the correct location to find information. One example of a way that HR may inform subordinates is through providing a reminder memo of where to find pertinent information about the job (e.g., corporate intranet, printed employee manual, etc.) or giving the subordinates the “top ten pieces of information newcomers need to know.” Providing these materials to subordinates will help improve the accuracy of information to ensure that new supervisors are not getting bad information.

Update and Promote Corporate Internet

Results from this study indicated a high frequency of corporate internet use when all three types of transitioners seek information. While the mobile technologies and the internet are important sources of information, the intranet was often used. Unfortunately, only a small percentage of organizations believe the tools provided on their corporate intranet are good (Mills, 2010). Human resource managers should create a space within the corporate intranet that is easy to find with all of the pertinent information necessary to begin a new job. This could include reinforcing the information shared during onboarding or it could be an additional source of information not already

covered for the newcomer. In any case, it is important that employers put information in an easy-to-find location where it is clearly organized.

Once the intranet is updated, all current employees should be notified so they can direct newcomers to the site. This study suggested that overt comments by coworkers and the group norms lead to the decisions of using the intranet as a source of information. If a newcomer is told to look on the corporate internet for organizational information, they will be likely to follow through and use this as a source of information. By updating this source and ensuring that coworkers know how to direct a newcomer to the site, human resource managers can more closely control the information disseminated to new employees.

Equip Work Groups for Individuals Transitioning from Education

When an organization expects newcomers who will be hired immediately following their formal education, such as Elaina, the new college graduate, the organization should prepare its current teams. This study found a significantly higher dependency on third-party tactics by individuals coming directly from their education. Thus, Elaina would be more likely to ask questions of the teachers on her teaching team compared to Owen or Jill. This is especially beneficial for organizations that hire many new college graduates each year or have a large college internship program. By ensuring that co-workers in work groups are prepared to answer questions for newcomers, these initiatives will improve the transition experience.

CONCLUSION

This study adds to the understanding of newcomer information-seeking behaviors with three primary contributions for both scholars and organizational practitioners. First, this study found a number of significant differences between information-seeking behaviors based on the type of transition, which can be expanded upon in future research. Second, while organizational intranets are not generally viewed as a primary source of information, newcomers are more likely to rely on this source when influenced by coworkers. Third, this study provides a picture of the current sources, tactics, and communication media used to seek information. Considered together, these results provide substantial direction for future organizational research.

Appendix A: Recruitment Email

Hi:

Our organization has the opportunity to participate in a research study being conducted at UT-Austin. They are looking for employees to participate that have joined our organization within the past few years. Since you fit into this category, if you could complete the following survey, we would greatly appreciate it. It should take no more than 20 minutes of your time. Your specific answers will not be tied to you or given back to our organization leaders. [[Insert Any Company-Specific Instructions]]

Link to Survey: https://utexas.qualtrics.com/SE/?SID=SV_0j2abwiRbybOqAB

Thanks so much for your time!

Appendix B: Social Media Post

If YOU have started full-time at a new company/organization in the past two years, would you please take a survey for one of my professors? It should take no longer than 20 minutes.

If you work in a company and could pass this link on to others in your organization that have started in the past two years, he would really appreciate it also!

https://utexas.qualtrics.com/SE/?SID=SV_0j2abwiRbybOqAB

Appendix C: Full Survey Instrument

Note: All italic text was removed prior to survey administration. All possible survey response items were randomly arranged.

This survey asks you to consider **your most recent employment transition** from your previous employer to your current employer. Keep this transition in mind as you complete the survey.

Career or Job Change Identification – 7 Items (Follows the method used by Higgins, 2001)

1. What is the name of your current employer?

(Open-Ended Question)

2. Which best describes your job function at your current employer?

- Management
- Business and Financial Operations
- Computer and Math
- Architecture and Engineering
- Life, Physical, and Social Sciences
- Community and Social Services
- Legal
- Education, Training, & Library
- Arts, Design, Entertainment, Sports, & Media
- Healthcare Practitioners and Technicians
- Healthcare Support
- Protective Services
- Food Preparation and Serving
- Building and Grounds Cleaning/Maintenance
- Personal Care and Service
- Sales
- Office and Administrative Support
- Farming, Fishing, & Forestry
- Construction and Extraction
- Installation, Maintenance, & Repair
- Production
- Transportation
- Military

3. Immediately before joining your current employer, were you a student?

Yes

No

[If the respondent selects “No” for question 3, he or she receives the following questions]

4. What are the initials of your previous employer?

(Open-Ended Question)

5. What best describes your job function at your previous employer?

Management

Business and Financial Operations

Computer and Math

Architecture and Engineering

Life, Physical, and Social Sciences

Community and Social Services

Legal

Education, Training, & Library

Arts, Design, Entertainment, Sports, & Media

Healthcare Practitioners and Technicians

Healthcare Support

Protective Services

Food Preparation and Serving

Building and Grounds Cleaning/Maintenance

Personal Care and Service

Sales

Office and Administrative Support

Farming, Fishing, & Forestry

Construction and Extraction

Installation, Maintenance, & Repair

Production

Transportation

Military

6. Do you perceive this new job to be a career change from what you were doing in your prior job?

Yes

No

7. When did your most recent job transition occur?

- Within the past 2 months
- About 3 - 6 months ago
- About 7 months - 1 year ago
- About 1 - 2 years ago
- About 2 - 4 years ago
- More than 4 years ago

Individual Measures

Motivation (Intrinsic Motivation – Lawler & Hall, 1970) – 4 Items

Range: 1 = Strongly Disagree, 7 = Strongly Agree (*Flipped Strongly agree and disagree from original scale*).

1. When I do my work well, it gives me a feeling of accomplishment.
2. When I perform my job well, it contributes to my personal growth and development.
3. I feel a great sense of personal satisfaction when I do my job well.
4. Doing my job well increases my feeling of self-esteem.

Learning Orientation (Elliot & Church, 1997 as modified by Gong, Huang, & Farh, 2009) – 6 Items

Range: 1=Not true of me at all, 7=Very true of me

1. I want to learn as much as possible from my job.
2. It is important for me to understand the information related to my job as thoroughly as possible.
3. I hope to gain a broader understanding of my workplace skills through my job.
4. I desire to completely master my job.
5. I prefer job-related information that arouses my curiosity, even if it is difficult to understand.
6. I prefer job-related information that challenges me to learn new things.

Uncertainty Tolerance (Intolerance of Uncertainty Scale-Carleton, Norton & Asmundson, 2007) – 12 items.

Range: 1 (not at all characteristic of me) to 5 (entirely characteristic of me)

- 1 Unforeseen events upset me greatly.
2. It frustrates me not having all the information I need.
3. One should always look ahead so as to avoid surprises.
4. A small, unforeseen event can spoil everything, even with the best of planning.

5. I always want to know what the future has in store for me.
6. I can't stand being taken by surprise.
7. I should be able to organize everything in advance.
8. Uncertainty keeps me from living a full life.
9. When it's time to act, uncertainty paralyzes me.
10. When I am uncertain, I can't function very well.
11. The smallest doubt can stop me from acting.
12. I must get away from all uncertain situations.

Need for Control (Greenberger, 1982) – 11 Items

Range: 1 = Almost no control, 2 = A little control, 3 = A moderate amount of control, 4 = A great deal of control, 5 = Almost total control

At work, how much control do you desire over the...

1. variety of tasks you perform.
2. order in which you perform tasks at work.
3. activities you engage in that lead to expanding your skills and abilities.
4. amount of work you do.
5. quality of the work you do.
6. arrangement and decoration of your work area.
7. decisions concerning which individuals in your work area do which tasks.
8. decisions as to when things will be done in your work area.
9. policies, procedures, and performance standards in your unit.
10. training of other work area.
11. arrangement of desks and other work equipment in your work area.

Goal Efficacy (Locke & Latham, 1984) – 4 Items

Range: 1=Strongly Disagree, 5=Strongly Agree

1. Trying for goals makes my job more fun than it would be without goals.
2. I feel proud when I get feedback indicating that I have reached my goals.
3. I usually feel that I have a suitable or effective action plan or plans for reaching my goals.
4. I feel that my job training was good enough so that I am capable of reaching my job goals.

Desire to Seek Feedback/Information (Janssen & Prins, 2007) – 5 items

Range: 1=Strongly Disagree, 5 = Strongly Agree

I ask for information:

1. To learn how I can master tasks
2. To learn how I can improve performing my work
3. To get information about how I can solve problems
4. To improve my knowledge and capabilities
5. To set more appropriate goals for myself

Social Influence (Created by Author) – 6 items

Range: 1 = Very Little, 5 = Very Much

How much does each of the following influence your decisions to seek information about your job at work?

1. Comments by coworkers
2. Observing what coworkers do
3. Recognizing what coworkers in the group do and do not do
4. Paying attention to group norms for seeking information
5. Listening to what coworkers say about seeking information
6. Looking for methods used by other group members.

Information Seeking Tactics (Miller, 1996) – 22 items

Instructions: Please answer the following questions about the way you found/find information in your new organization.

Range: 1=Very Rarely, 7=Very Often

Overt

1. I asked specific, straight to-the-point questions to get the information I wanted
2. I would identify what I didn't know and ask for information about the matter
3. I would go directly to my supervisor and ask for information about the matter
4. I would not "beat around the bush" in asking for information

Indirect

5. I would indicate my curiosity about the topic without directly asking for the information
6. I would let my supervisor know indirectly that I would like to know the information
7. I would ask questions in such a way that they wouldn't seem like questions
8. I would encourage my supervisor to talk about the topic without letting them know I

was seeking the information

Third Party

9. I would find a source other than my supervisor who could tell me the same information
10. I would find someone else besides my supervisor to serve as a sounding board for the topic
11. I would ask somebody who I knew was acquainted with my supervisor's feelings on the subject rather than ask my supervisor
12. I would check with someone else before speaking to my supervisor

Testing

13. I would "mess up" on something related to my topic to see how my supervisor would respond
14. I would ignore a rule or guideline related to the topic to see how my supervisor would react
15. I would try my supervisor's patience in the matter, "just a little bit," to see how they would react
16. I would do one or two things to get on my supervisor's nerves in order to see how they would react

Observing

17. I would look for answers about the job in the behaviors of my supervisor
18. I would pay close attention to how my supervisor acts toward me and try to relate those actions to the topic
19. I would consciously make mental notes about what my supervisor tells others about the topic
20. I would walk around just to see "what was up" and think about what it might mean in relation to the topic when I had more time
21. I would go about my tasks, but if any new information came my way, I'd be sure to pay attention to it
22. I'd find out the information by keeping my eyes and ears open to what was going on around me

Information-Seeking Sources (Developed by Author) – 9 items

Instructions: Please indicate how likely you are to find information after you start your new job from the following sources.

Range: 1=Not likely at all, 5=Very Likely

1. Peers/Coworkers**
2. Supervisors**
3. Subordinates**
4. Other organizational members (i.e. administrative assistants, acquaintances in other departments)**
5. Customers/clients
6. Printed materials and manuals
7. Electronic materials and manuals
8. Friends outside work *
9. Family members*

Information-Seeking Technologies Used (adapted from Scott & Timmerman, 2005) – 10 items

Instructions: Please indicate how likely you are to find information when you are at a new job using the following technologies.

Range: 1 = Very Rarely, 5 = Very Regularly

1. Landline office phone
2. Phone call with mobile phone provided by workplace *
3. Phone call on personal mobile phone *
4. E-mail
5. Fax
6. Internet
7. Online Chat
8. Text Message *
9. Online organizational intranet *
10. Digital copy of employee handbook

Open-Ended Question – 3 items

1. What are the three most common ways you looked for information when you joined your current employer?
2. How many times have you made an upward, downward, or lateral job change within

the same line of work. (For example, a computer engineer becomes a manager at a computer engineering company.) _____

3. How many times have you moved to a completely new type of job or a different line of work? (For example, a computer engineer becomes a nurse.) _____

Demographic Questions – 5 Items

What is your gender?

____ Male

____ Female

____ Decline to Answer

In what year were you born? _____

What is your race/ethnicity?

____ White

____ Black or African American

____ Hispanic/Latino/Spanish origin

____ American Indian/Alaskan Native

____ Asian

____ Native Hawaiian/Other Pacific Islander

____ Some other race or origin _____

____ Decline to Answer

What is your first language:

____ English

____ Spanish

____ Other. Please specify _____

Which describes your highest level of education complete?

____ Some high school

____ High School Diploma/GED

____ Some college

____ Associate degree

____ Bachelor's degree

____ Master's degree

____ Professional degree

____ Doctorate degree

References

- Adamic, L., & Filiz, I. O. (2016). Do jobs run in families? Retrieved from <https://research.fb.com/do-jobs-run-in-families/>
- Adkins, C. L. (1995). Previous work experience and organizational socialization: A longitudinal examination. *The Academy of Management Journal*, *38*, 839-862. doi:10.2307/256748
- Anseel, F., Beatty, A. S., Shen, W., Lievens, F., & Sackett, P. R. (2015). How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *Journal of Management*, *41*, 318-348. doi:10.1177/0149206313484521
- Armstrong-Stassen, M. (2003). Job transfer during organizational downsizing: A comparison of promotion and lateral transfers. *Group & Organization Management*, *28*, 392-415. doi:10.1177/1059601102250824
- Arthur, M. B. (2008). Examining contemporary careers: A call for interdisciplinary inquiry. *Human Relations*, *61*, 163-186. doi:10.1177/0018726707087783
- Arthur, M. B. (2014). The boundaryless career at 20: Where do we stand, and where can we go? *Career Development International*, *19*, 627-640. doi:10.1108/CDI-05-2014-0068
- Arthur, M. B., Hall, D. T., & Lawrence, B. S. (1989a). Generating new directions in career theory: The case for a transdisciplinary approach. In M. B. Arthur, D. T.

- Hall, & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 7-25). Cambridge, UK: Cambridge University Press.
- Arthur, M. B., Hall, D. T., & Lawrence, B. S. (1989b). *Handbook of career theory*. Cambridge, UK: Cambridge University Press.
- Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. *Journal of Applied Psychology, 81*, 199-214. doi:10.1037/0021-9010.81.2.199
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational behavior and human performance, 32*, 370-398. doi:10.1016/0030-5073(83)90156-3
- Ashforth, B. E., Sluss, D. M., & Harrison, S. H. (2007). Socialization in organizational contexts. In G. P. Hodgkinson & J. K. Ford (Eds.), *International review of industrial and organizational psychology* (Vol. 22, pp. 1-70). Hoboken, NJ: Wiley.
- Ashforth, B. E., Sluss, D. M., & Saks, A. M. (2007). Socialization tactics, proactive behavior, and newcomer learning: Integrating socialization models. *Journal of Vocational Behavior, 70*, 447-462. doi:10.1016/j.jvb.2007.02.001
- Atwood, J. D., & Scholtz, C. (2008). The quarter-life time period: An age of indulgence, crisis or both? *Contemporary Family Therapy, 30*, 233-250. doi:10.1007/s10591-008-9066-2

- Avolio, B. J., Waldman, D. A., & McDaniel, M. A. (1990). Age and work performance in nonmanagerial jobs: The effects of experience and occupational type. *The Academy of Management Journal*, 33, 407-422. doi:10.2307/256331
- Baldwin, J. R., & Hunt, S. K. (2002). Information seeking behavior in intercultural and intergroup communication. *Human Communication Research*, 28, 272-286. doi:10.1111/j.1468-2958.2002.tb00808.x
- Barclay, S. R., Chung, Y. B., & Stoltz, K. B. (2011). Voluntary midlife career change: Integrating the transtheoretical model and the life-span, life-space approach. *Career Development Quarterly*, 59, 386-399. doi:10.1002/j.2161-0045.2011.tb00966.x
- Barge, J. K., & Schlueter, D. W. (2004). Memorable messages and newcomer socialization. *Western Journal of Communication*, 68, 233-256. doi:10.1080/10570310409374800
- Baruch, Y. (2004). Transforming careers: From linear to multidirectional career paths. *Career Development International*, 9, 58-73. doi:10.1108/13620430410518147
- Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., & Tucker, J. S. (2007). Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods. *Journal of Applied Psychology*, 92, 707-721. doi:10.1037/0021-9010.92.3.707
- Beebe, S. A., Beebe, S. J., & Ivy, D. K. (2016). *Communication: Principles for a lifetime* (6th ed.). New York, NY: Pearson Education.

- Bennett, E. E. (2014). How an intranet provides opportunities for learning organizational culture: Implications for virtual hrd. *Advances in Developing Human Resources*, 16, 296-319. doi:10.1177/1523422314532093
- Berger, C. R., & Bradac, J. J. (1982). *Language and social knowledge : Uncertainty in interpersonal relations*. London: E. Arnold.
- Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1, 99-112. doi:10.1111/j.1468-2958.1975.tb00258.x
- Berkelaar, B. L. (2013). Joining and leaving organizations in a global information society. In E. L. Cohen (Ed.), *Communication yearbook* (Vol. 37, pp. 33-64). New York, NY: Routledge.
- Blau, G. (2007). Does a corresponding set of variables for explaining voluntary organizational turnover transfer to explaining voluntary occupational turnover. *Journal of Vocational Behavior*, 70, 135-148. doi:10.1016/j.jvb.2006.07.007
- Brashers, D. E. (2001). Communication and uncertainty management. *Journal of Communication*, 51, 477-497. doi:10.1111/j.1460-2466.2001.tb02892.x
- Brown, T. A. (2015). *Confirmatory factor analysis for applied research*. New York: The Guilford Press.
- Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21, 230-258.
doi:10.1177/0049124192021002005

- Byrne, B. M. (2013). *Structural equation modeling with amos: Basic concepts, applications, and programming* (2nd ed.). New York, NY: Routledge.
- Callister, R. R., Kramer, M. W., & Turban, D. B. (1999). Feedback seeking following career transitions. *The Academy of Management Journal*, *42*, 429-438.
doi:10.2307/257013
- Campbell, S. W., & Russo, T. C. (2003). The social construction of mobile telephony: An application of the social influence model to perceptions and uses of mobile phones within personal communication networks. *Communication Monographs*, *70*, 317-334. doi:10.1080/0363775032000179124
- Carless, S. A., & Arnup, J. L. (2011). A longitudinal study of the determinants and outcomes of career change. *Journal of Vocational Behavior*, *78*, 80-91.
doi:10.1016/j.jvb.2010.09.002
- Carleton, R. N., Norton, M. A., & Asmundson, G. J. G. (2007). Fearing the unknown: A short version of the intolerance of uncertainty scale. *Journal of Anxiety Disorders*, *21*, 105-117. doi:10.1016/j.janxdis.2006.03.014
- Case, D. O., & Given, L. M. (2016). *Looking for information: A survey of research on information seeking, needs, and behavior* (4th ed.). Bingley, UK: Emerald.
- Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate behavioral research*, *1*, 245-276. doi:10.1207/s15327906mbr0102_10
- Chao, G. T., O'Leary-Kelly, A. M., Wolf, S., Klein, H. J., & Gardner, P. D. (1994). Organizational socialization: Its content and consequences. *Journal of Applied Psychology*, *79*, 730-743. doi:10.1037/0021-9010.79.5.730

- Cheney, G., Lair, D. J., Ritz, D., & Kendall, B. E. (2010). *Just a job? Communication, ethics, and professional life*. Oxford, UK: Oxford University Press.
- Chui, M., Manyika, J., Bughin, J., Dobbs, R., Roxburgh, C., & Westergren, M. (2012). *The social economy: Unlocking value and productivity through social technologies*. Retrieved from <https://www.mckinsey.com/industries/high-tech/our-insights/the-social-economy>
- Clair, R. P. (1996). The political nature of the colloquialism, 'a real job': Implications for organizational socialization. *Communication Monographs*, 63, 249-267.
doi:10.1080/03637759609376392
- Clune, R. R., & Gramling, A. A. (2012). Hiring recent university graduates into internal audit positions: Insights from practicing internal auditors. *Current Issues in Auditing*, 6, A1-A14. doi:10.2308/ciia-50235
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Collins, C. J. (2007). The interactive effects of recruitment practices and product awareness on job seekers' employer knowledge and application behaviors. *Journal of Applied Psychology*, 92, 180-190. doi:10.1037/0021-9010.92.1.180
- Conen, W. S., Henkens, K., & Schippers, J. J. (2011). Are employers changing their behavior toward older workers? An analysis of employers' surveys 2000–2009.

- Journal of Aging & Social Policy*, 23, 141-158.
doi:10.1080/08959420.2011.551612
- Conway, J. M., & Huffcutt, A. I. (2003). A review and evaluation of exploratory factor analysis practices in organizational research. *Organizational Research Methods*, 6, 147-168. doi:10.1177/1094428103251541
- Cooper-Thomas, H. D., Paterson, N. L., Stadler, M. J., & Saks, A. M. (2014). The relative importance of proactive behaviors and outcomes for predicting newcomer learning, well-being, and work engagement. *Journal of Vocational Behavior*, 84, 318-331. doi:10.1016/j.jvb.2014.02.007
- Cooper-Thomas, H., Anderson, N., & Cash, M. (2011). Investigating organizational socialization: A fresh look at newcomer adjustment strategies. *Personnel Review*, 41, 41-55. doi:10.1108/00483481211189938
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (Vol. 4). Thousand Oaks: SAGE Publications.
- Crow, G. M. (1993). Reconceptualizing the school administrator's role: Socialization at mid-career. *School Effectiveness and School Improvement*, 4, 131-152.
doi:10.1080/0924345930040203
- Daft, R. L., & Lengel, R. H. (1984). Information richness: A new approach to managerial behavior and organization design. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 6, pp. 191-233). Greenwich, CT: JAI.

- Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message equivocality, media selection, and manager performance: Implications for information systems. *MIS Quarterly*, *11*, 355-366. doi:10.2307/248682
- De Vos, A., & Freese, C. (2011). Sensemaking during organizational entry: Changes in newcomer information seeking and the relationship with psychological contract fulfilment. *Journal of Occupational and Organizational Psychology*, *84*, 288-314. doi:10.1111/j.2044-8325.2011.02024.x
- DeFillippi, R. J., & Arthur, M. B. (1994). The boundaryless career: A competency-based perspective. *Journal of Organizational Behavior*, *15*, 307-324. doi:10.1002/job.4030150403
- Dormann, C. F., Elith, J., Bacher, S., Buchmann, C., Carl, G., Carré, G., . . . Lautenbach, S. (2013). Collinearity: A review of methods to deal with it and a simulation study evaluating their performance. *Ecography*, *36*, 027-046. doi:10.1111/j.1600-0587.2012.07348.x
- Douglas T. Hall & Associates. (1996). *The career is dead-long live the career*. San Francisco, CA: Jossey-Bass.
- Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Psychological Press.
- Eisinga, R., Manfred, G., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, cronbach, or spearman-brown? *International Journal of Public Health*, *58*, 637-642. doi:10.1007/s00038-012-0416-3

- Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72, 218-232. doi:10.1037/0022-3514.72.1.218
- Fallows, D. (2002). Email at work. *Pew Internet & American Life Project*.
- Feldman, D. C. (1976). A contingency theory of socialization. *Administrative Science Quarterly*, 21, 433-452. doi:10.2307/2391853
- Feldman, D. C. (1981). The multiple socialization of organization members. *The Academy of Management Review*, 6, 309-318. doi:10.5465/AMR.1981.4287859
- Feldman, D. C., & Ng, T. W. H. (2007). Careers: Mobility, embeddedness, and success. *Journal of Management*, 33, 350-377. doi:10.1177/0149206307300815
- Finkelstein, L. M., Kulas, J. T., & Dages, K. D. (2003). Age differences in proactive newcomer socialization strategies in two populations. *Journal of Business and Psychology*, 17, 473-502. doi:10.1023/A:1023400201387
- Flanagin, A. J., & Waldeck, J. H. (2004). Technology use and organizational newcomer socialization. *Journal of Business Communication*, 41, 137-165.
doi:10.1177/0021943604263290
- Freeston, M. H., Rhéaume, J., Letarte, H., Dugas, M. J., & Ladouceur, R. (1994). Why do people worry? *Personality and Individual Differences*, 17, 791-802.
doi:10.1016/0191-8869(94)90048-5
- Fulk, J., Schmitz, J., & Steinfield, C. W. (1990). A social influence model of technology use. In J. Fulk & C. W. Steinfield (Eds.), *Organizations and communication technology* (pp. 117-140). Newbury Park, CA: Sage Publications.

- Fulk, J., & Steinfield, C. W. (1990). *Organizations and communication technology*. Newbury Park, CA: Sage.
- Gallagher, E. B., & Sias, P. M. (2009). The new employee as a source of uncertainty: Veteran employee information seeking about new hires. *Western Journal of Communication, 73*, 23-46. doi:10.1080/10570310802636326
- Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology, 43*, 510-526. doi:10.1037/0022-0167.43.4.510
- Gong, Y., Huang, J.-C., & Farh, J.-L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *The Academy of Management Journal, 52*, 765-778. doi:10.2307/40390315
- Goudreau, J. (2011). How to lose friends and alienate coworkers with bad mobile behavior. *Forbes.com*, p. 8.
- Greenberger, D. B. (1982). *Personal control at work: Its conceptualization and measurement*. Retrieved from Office of Naval Research Technical Report:
- Greenberger, D. B., Strasser, S., & Lee, S. (1988). Personal control as a mediator between perceptions of supervisory behaviors and employee reactions. *The Academy of Management Journal, 31*, 405-417. doi:10.2307/256556
- Gruman, J. A., Saks, A. M., & Zweig, D. I. (2006). Organizational socialization tactics and newcomer proactive behaviors: An integrative study. *Journal of Vocational Behavior, 69*, 90-104. doi:10.1016/j.jvb.2006.03.001

- Gubler, M., Arnold, J., & Coombs, C. (2014). Organizational boundaries and beyond: A new look at the components of a boundaryless career orientation. *Career Development International*, 19, 641-667. doi:10.1108/CDI-11-2013-0143
- Halder, S., Roy, A., & Chakraborty, P. (2017). The influence of personality traits on information seeking behaviour of students. *Malaysian Journal of Library & Information Science*, 15, 41-53.
- Hallqvist, A., & Hydén, L.-C. (2012). Learning in occupational transitions: A study of the process following job loss. *Work*, 43, 331. doi:10.3233/WOR-2012-1384
- Hallqvist, A., & Hydén, L.-C. (2014). End of journey, end of story? A longitudinal study of involuntary work transitions among laid-off workers. *Studies in Continuing Education*, 36, 201-217. doi:10.1080/0158037X.2014.904778
- Hart, Z. P. (2012). Message content and sources during organizational socialization. *Journal of Business Communication*, 49, 191-209.
doi:10.1177/0021943612446731
- Harter, J., Agrawal, S., & Sorenson, S. (2014). Most U.S. Workers see upside to staying connected to work. from Gallup News
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408-420.
doi:10.1080/03637750903310360
- Head, A. J., & Eisenberg, M. B. (2010). Truth be told: How college students evaluate and use information in the digital age. from Project Information Literacy
http://projectinfolit.org/pdfs/PIL_Fall2010_Survey_FullReport1.pdf

- Higgins, M. C. (2001). Changing careers: The effects of social context. *Journal of Organizational Behavior*, 22, 595-618. doi:10.1002/job.104
- Hill, L. A. (2003). *Becoming a manager: How new managers master the challenges of leadership*. Boston, MA: Harvard Business School Press.
- Hocking, R. R. (2013). *Methods and applications of linear models: Regression and the analysis of variance* (Vol. 3rd). Hoboken, NJ: John Wiley & Sons Inc.
- Hoerger, M. (2010). Participant dropout as a function of survey length in internet-mediated university studies: Implications for study design and voluntary participation in psychological research. *Cyberpsychology, Behavior and Social Networking*, 13, 697-700. doi:10.1089/cyber.2009.0445
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63, 597-606. doi:10.1086/222355
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1-55. doi:10.1080/10705519909540118
- Huber, G. P. (1990). A theory of the effects of advanced information technologies on organizational design, intelligence, and decision making. In J. Fulk & C. W. Steinfield (Eds.), *Organizations and communication technology* (pp. 237-274). Newbury Park, CA: Sage.
- Inkson, K. (2006). *Understanding careers: The metaphors of working lives*. Thousand Oaks, CA: Sage.

- Jablin, F. M. (1982). Organizational communication: An assimilation approach. In M. E. Roloff & C. R. Berger (Eds.), *Social cognition and communication* (pp. 255-286). Newbury Park, CA: Sage.
- Jablin, F. M. (1984). Organizational communication: An assimilation approach. In R. N. Bostrom (Ed.), *Communication yearbook* (Vol. 8, pp. 594-626). Beverly Hills, CA: Sage.
- Jablin, F. M. (1987). Organizational entry, assimilation, and exit. In F. M. Jablin, L. L. Putnam, K. H. Roberts, & L. W. Porter (Eds.), *Handbook of organizational communication: An interdisciplinary perspective* (pp. 679-740). Newbury Park, CA: Sage.
- Jablin, F. M. (2001). Organizational entry, assimilation, and disengagement/exit. In F. M. Jablin & L. L. Putnam (Eds.), *The new handbook of organizational communication: Advances in theory, research, and methods* (pp. 732-818). Thousand Oaks, CA: Sage.
- Jahn, J. L. S., & Myers, K. K. (2014). Vocational anticipatory socialization of adolescents: Messages, sources, and frameworks that influence interest in STEM careers. *Journal of Applied Communication Research*, 42, 85-106.
doi:10.1080/00909882.2013.874568
- Janssen, O., & Prins, J. (2007). Goal orientations and the seeking of different types of feedback information. *Journal of Occupational and Organizational Psychology*, 80, 235-249. doi:10.1348/096317906X103410

- Jian, G. (2013). Understanding the wired workplace: The effects of job characteristics on employees' personal online communication at work. *Communication Research Reports, 30*, 22-33. doi:10.1080/08824096.2012.746221
- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustments to organizations. *Academy of Management Journal, 29*, 262-279.
doi:10.2307/256188
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*, 141-151.
doi:10.1177/001316446002000116
- Kattenbach, R., Schneidhofer, T. M., Lücke, J., Latzke, M., Locker, B., Schramm, F., & Mayrhofer, W. (2014). A quarter of a century of job transitions in Germany. *Journal of Vocational Behavior, 84*, 49-58. doi:10.1016/j.jvb.2013.11.001
- Keith, T. Z. (2006). *Multiple regression and beyond*. Boston, MA: Pearson Education.
- Kenny, D. A. (1979). *Correlation and causality*. New York: Wiley.
- Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2015). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods and Research, 44*, 486. doi:10.1177/0049124114543236
- Kim, B. (2010). Organizational and social factors in the adoption of intranet 2.0: A case study. *Journal of Web Librarianship, 4*, 187-206.
doi:10.1080/19322909.2010.501276
- Kim, K.-S., Sin, S.-C. J., & Yoo-Lee, E. Y. (2014). Undergraduates' use of social media as information sources. *College & Research Libraries, 75*, 442-457.

- Kline, R. B. (2016). *Principles and practice of structural equation modeling., 4th ed.*
New York, NY: Guilford Press.
- Korte, R. F. (2009). How newcomers learn the social norms of an organization: A case study of the socialization of newly hired engineers. *Human Resource Development Quarterly, 20*, 285-306. doi:10.1002/hrdq.20016
- Kramer, M. W. (1989). Communication during intraorganization job transfers. *Management Communication Quarterly, 3*, 219-248.
doi:10.1177/0893318989003002004
- Kramer, M. W. (1993). Communication and uncertainty reduction during job transfers: Leaving and joining processes. *Communication Monographs, 60*, 178-198.
doi:10.1080/03637759309376307
- Kramer, M. W. (1994). Uncertainty reduction during job transitions: An exploratory study of the communication experiences of newcomers and transferees. *Management Communication Quarterly, 7*, 384-412.
doi:10.1177/0893318994007004002
- Kramer, M. W. (1999). Motivation to reduce uncertainty: A reconceptualization of uncertainty reduction theory. *Management Communication Quarterly, 13*, 305-316. doi:10.1177/0893318999132007
- Kramer, M. W. (2010). *Organizational socialization: Joining and leaving organizations.*
Cambridge, UK: Polity Press.

- Kramer, M. W., & Miller, V. D. (2014). Socialization and assimilation. In L. L. Putnam & D. K. Mumby (Eds.), *Handbook of organizational communication* (3rd ed., pp. 525-547). Los Angeles, CA: Sage.
- Kramer, M. W., & Noland, T. L. (1999). Communication during job promotions: A case of ongoing assimilation. *Journal of Applied Communication Research*, 27, 335-355. doi:10.1080/00909889909365544
- Lachman, M. E. (2004). Development in midlife. *Annual Review of Psychology*, 55, 305-331. doi:10.1146/annurev.psych.55.090902.141521
- Lawler, E. E., & Hall, D. T. (1970). Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied Psychology*, 54, 305-312. doi:10.1037/h0029692
- Lee, C., Bobko, P., Earley, P. C., & Locke, E. A. (1991). An empirical analysis of a goal setting questionnaire. *Journal of Organizational Behavior*, 12, 467-482. doi:10.2307/2488053
- Levine, K. J., & Hoffner, C. A. (2006). Adolescents' conceptions of work: What is learned from different sources during anticipatory socialization? *Journal of Adolescent Research*, 21, 647-669. doi:10.1177/0743558406293963
- Levine, T., Hullett, C. R., Turner, M. M., & Lapinski, M. K. (2006). The desirability of using confirmatory factor analysis on published scales. *Communication Research Reports*, 23, 309-314. doi:10.1080/08824090600962698

- Levit, A., & Licina, S. (2011). *How the recession shaped millennial and hiring manager attitudes about millennial's future careers*. Retrieved from <http://www.careeradvisoryboard.org/>
- Levy, P. E., Albright, M. D., Cawley, B. D., & Williams, J. R. (1995). Situational and individual determinants of feedback seeking: A closer look at the process. *Organizational Behavior and Human Decision Processes*, 62, 23-37.
doi:10.1006/obhd.1995.1028
- Locke, E. A., & Latham, G. P. (1984). *Goal setting: A motivational technique that works!* Englewood Cliffs, NJ: Prentice-Hall.
- Louis, M. R. (1990). Acculturation in the workplace: Newcomers as lay ethnographers. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 85-129). San Francisco: Jossey-Bass.
- Louis, M. R., Posner, B. Z., & Powell, G. N. (1983). The availability and helpfulness of socialization practices. *Personnel Psychology*, 36, 857-866. doi:10.1111/j.1744-6570.1983.tb00515.x
- Lucas, K. (2011). Socializing messages in blue-collar families: Communicative pathways to social mobility and reproduction. *Western Journal of Communication*, 75, 95-121. doi:10.1080/10570314.2010.536964
- Madlock, P. E., & Chory, R. M. (2013). Socialization as a predictor of employee outcomes. *Communication Studies*, 65, 56-71.
doi:10.1080/10510974.2013.811429

- Madlock, P. E., & Horan, S. M. (2009). Predicted outcome value of organizational commitment. *Communication Research Reports, 26*, 40-49.
doi:10.1080/08824090802637023
- McCroskey, J. C., & Young, T. J. (1979). The use and abuse of factor analysis in communication research. *Human Communication Research, 5*, 375-382.
doi:10.1111/j.1468-2958.1979.tb00651.x
- Meroño-Cerdan, A. L., Soto-Acosta, P., & López-Nicolás, C. (2008). Analyzing collaborative technologies' effect on performance through intranet use orientations. *Journal of Enterprise Information Management, 21*, 39-51.
doi:10.1108/17410390810842246
- Miller, V. D. (1996). An experimental study of newcomers' information seeking behaviors during organizational entry. *Communication Studies, 47*, 1-24.
doi:10.1080/10510979609368460
- Miller, V. D., & Jablin, F. M. (1991). Information seeking during organizational entry: Influences, tactics, and a model of the process. *The Academy of Management Review, 16*, 92-120. doi:10.5465/AMR.1991.4278997
- Miller, V. D., Jablin, F. M., Casey, M. K., Lamphear-Van Horn, M., & Ethington, C. (1996). The maternity leave as a role negotiation process. *Journal of Managerial Issues, 8*, 286-309.
- Mills, J. (2010). Intranet 2.0 becomes mainstream. Retrieved from www.prescientdigital.com/articles/intranet-articles/intranet-2-0-becomes-mainstream

- Morgan, S. E., & Carcioppolo, N. (2014). Survey research methodology in health communication. In B. B. Whaley (Ed.), *Research methods in health communication* (pp. 78-96). New York: Routledge.
- Moring, C. (2017). Newcomer information seeking: The role of information seeking in newcomer socialization and learning in the workplace. *Information Research*, 22, 1-14. doi:10.1109/ICICIC.2008.572
- Morrison, E. W. (1993). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of Management Journal*, 36, 557-589. doi:10.2307/256592
- Morrison, E. W. (1995). Information usefulness and acquisition during organizational encounter. *Management Communication Quarterly*, 9, 131-155. doi:10.1177/0893318995009002001
- Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research*, 28, 229-242. doi:10.1111/j.1468-2958.2002.tb00805.x
- Morrison, E. W., & Bies, R. J. (1991). Impression management in the feedback-seeking process: A literature review and research agenda. *The Academy of Management Review*, 16, 522-541. doi:10.5465/AMR.1991.4279472
- Morrison, E. W., & Vancouver, J. B. (2000). Within-person analysis of information seeking: The effects of perceived costs and benefits. *Journal of Management*, 26, 119-137. doi:10.1177/014920630002600101

- Myers, S. A. (1998). Gtas as organizational newcomers: The association between supportive communication relationships and information seeking. *Western Journal of Communication, 62*, 54-73.
- Neapolitan, J. (1980). Occupational change in mid-career: An exploratory investigation. *Journal of Vocational Behavior, 16*, 212-225. doi:10.1016/0001-8791(80)90052-4
- Olson, J. S. (2014). Transitions from formal education to the workplace. *New Directions for Adult and Continuing Education, 2014*, 73-82. doi:10.1002/ace.20106
- Osipow, S. H. (1983). *Theories of career development* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Ostroff, C., & Kozlowski, S. W. J. (1992). Organizational socialization as a learning process: The role of information acquisition. *Personnel Psychology, 45*, 849-874. doi:10.1111/j.1744-6570.1992.tb00971.x
- Otto, K., Dette-Hagenmeyer, D. E., & Dalbert, C. (2010). Occupational mobility in members of the labor force: Explaining the willingness to change occupations. *Journal of Career Development, 36*, 262-288. doi:10.1177/0894845309345842
- Perrot, S., Bauer, T. N., Abonneau, D., Campoy, E., Erdogan, B., & Liden, R. C. (2014). Organizational socialization tactics and newcomer adjustment: The moderating role of perceived organizational support. *Group & Organization Management, 39*, 247-273. doi:10.1177/1059601114535469
- Pituch, K. A., & Stevens, J. P. (2015). *Applied multivariate statistics for the social sciences : Analyses with SAS and ibm's SPSS* (6th ed.). New York: Routledge.

- Pixley, J. E. (2009). Differentiating careers from jobs in the search for dual-career couples. *Sociological Perspectives*, 52, 363-384. doi:10.1525/sop.2009.52.3.363
- Porter, L. W., Lawler, E. E., III, & Hackman, J. R. (1975). *Behavior in organizations*. New York: McGraw-Hill.
- Porter, S. R. (2004). *Overcoming survey research problems*. San Francisco: Jossey-Bass.
- Porter, S. R., Whitcomb, M. E., & Weitzer, W. H. (2004). Multiple surveys of students and survey fatigue. *New Directions for Institutional Research*, 2004, 63-73. doi:10.1002/ir.101
- Price, J. L. (1977). *The study of turnover*. Ames, IA: Iowa State University Press.
- Purcell, K., & Rainie, L. (2014). *Technology's impact on workers*. Retrieved from <http://www.pewinternet.org/2014/12/30/technologys-impact-on-workers/>
- Putney, N. M., & Bengtson, V. L. (2001). Families, intergenerational relationships, and kinkeeping in midlife. In M. E. Lachman (Ed.), *Handbook of midlife development* (pp. 528-570). New York: Wiley.
- Radicati, S. (2011). *Email statistics report*. Retrieved from Palo Alto, CA: The Radicati Group, Inc.
- Raykov, T., & Marcoulides, G. A. (2000). *A first course in structural equation modeling*. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Reinke, K., & Chamorro-Premuzic, T. (2014). When email use gets out of control: Understanding the relationship between personality and email overload and their impact on burnout and work engagement. *Computers in Human Behavior*, 36, 502-509. doi:10.1016/j.chb.2014.03.075

- Rhodes, S. R., & Doering, M. (1983). An integrated model of career change. *Academy of Management Review*, 8, 631-639. doi:10.5465/AMR.1983.4284666
- Rice, R. E., & Leonardi, P. M. (2014). Information and communication technologies in organizations. In L. L. Putnam & D. K. Mumby (Eds.), *The sage handbook of organizational communication: Advances in theory, research, and methods* (3 ed., pp. 425-448). Thousand Oaks, CA: Sage.
- Richardson, P. W., Watt, H. M. G., & Tysvaer, N. M. (2007). What motivates people from business-related careers to change to teaching? In M. F. Ozbilgin & A. Malach-Pines (Eds.), *Career choice in management and entrepreneurship: A research companion* (pp. 219-239). Northampton, MA: Edward Elgar Press.
- Richmond, V. P., & McCroskey, J. C. (2000). The impact of supervisor and subordinate immediacy on relational and organizational outcomes. *Communication Monographs*, 67, 85-95. doi:10.1080/03637750009376496
- Rigotti, T., Korek, S., & Otto, K. (2014). Gains and losses related to career transitions within organisations. *Journal of Vocational Behavior*, 84, 177-187.
doi:10.1016/j.jvb.2013.12.006
- Roloff, M. E. (1981). *Interpersonal communication: The social exchange approach* (Vol. 6). Beverly Hills, CA: Sage Publications.
- Ruffolo, J.-A. F. (1993). *Voluntary midlife career change: A study of factors associated with voluntary midlife career change among professionals in urban and suburban southern california*. (Unpublished doctoral dissertation). University of La Verne.

- Saks, A., & Gruman, J. A. (2014). Making organizations more effective through organizational socialization. *Journal of Organizational Effectiveness: People and Performance, 1*, 261-280. doi:10.1108/JOEPP-07-2014-0036
- Saks, A. M. (1996). The relationship between the amount and helpfulness of entry training and work outcomes. *Human Relations, 49*, 429-451. doi:10.1177/001872679604900402
- Saks, A. M., Gruman, J. A., & Cooper-Thomas, H. (2011). The neglected role of proactive behavior and outcomes in newcomer socialization. *Journal of Vocational Behavior, 79*, 36-46. doi:10.1016/j.jvb.2010.12.007
- Saks, A. M., Uggerslev, K. L., & Fassina, N. E. (2007). Socialization tactics and newcomer adjustment: A meta-analytic review and test of a model. *Journal of Vocational Behavior, 70*, 413-446. doi:10.1016/j.jvb.2006.12.004
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*, 147-177. doi:10.1037//1082-989X.7.2.147
- Scott, C., & Myers, K. (2010). Toward an integrative theoretical perspective on organizational membership negotiations: Socialization, assimilation, and the duality of structure. *Communication Theory, 20*, 79-105. doi:10.1111/j.1468-2885.2009.01355.x
- Scott, C. R., & Timmerman, C. E. (2005). Relating computer, communication, and computer-mediated communication apprehensions to new communication technology use in the workplace. *Communication Research, 32*, 683-725. doi:10.1177/0093650205281054

- Shannon, C. E., & Weaver, W. (1949). *The mathematical theory of communication*. Urbana, IL: University of Illinois Press.
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. New York: Wiley.
- Sias, P. M. (2005). Workplace relationship quality and employee information experiences. *Communication Studies*, 56, 375-395.
doi:10.1080/10510970500319450
- Sias, P. M. (2009). *Organizing relationships: Tradition and emerging perspectives on workplace relationships*. Thousand Oaks, CA: Sage.
- Skeels, M. M., & Grudin, J. (2009). *When social networks cross boundaries: A case study of workplace use of facebook and linkedin*. Paper presented at the Proceedings of the ACM 2009 international conference on supporting group work.
- Snell, A. (2006). Researching onboarding best practice: Using research to connect onboarding processes with employee satisfaction. *Strategic HR Review*, 5, 32-35.
doi:10.1108/14754390680000925
- Soper, D. S. (2017). A-priori sample size calculator for structural equation models. Retrieved from <http://www.danielsoper.com/statcalc>
- Steinberg, S. (2007). *An introduction to communication studies*. Cape Town, South Africa: Juta & Co.

- Stephens, K. K. (2007). The successive use of information and communication technologies at work. *Communication Theory*, 17, 486-507. doi:10.1111/j.1468-2885.2007.00308.x
- Stephens, K. K., & Dailey, S. L. (2012). Situated organizational identification in newcomers: Impacts of preentry organizational exposure. *Management Communication Quarterly*, 26, 404-422. doi:10.1177/0893318912440179
- Stephens, K. K., & Mottet, T. P. (2008). Interactivity in a web conference training context: Effects on trainers and trainees. *Communication Education*, 57, 88-104. doi:10.1080/03634520701573284
- Stephens, K. K., & Sætre, A. S. (2008). Media choice and ICT use. In L. D. Browning, A. S. Sætre, K. K. Stephens, & J.-O. Sørnes (Eds.), *Information & communication technologies in action: Linking theory & narratives of practice* (2 ed., pp. 27-35). New York, NY: Routledge.
- Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Steverman, B. (2017). Working past 70: Americans can't seem to retire. from Bloomberg
- Stringer, C., Didham, J., & Theivananthampillai, P. (2011). Motivation, pay satisfaction, and job satisfaction of front-line employees. *Qualitative Research in Accounting & Management*, 8, 161-179. doi:10.1108/11766091111137564
- Stringer, L. (2006). The link between the quality of the supervisor–employee relationship and the level of the employee's job satisfaction. *Public Organization Review*, 6, 125-142. doi:10.1007/s11115-006-0005-0

- Sullivan, S. E. (1999). The changing nature of careers: A review and research agenda. *Journal of Management, 25*, 457-484. doi:10.1016/S0149-2063(99)00009-4
- Sutton, R. I., & Louis, M. R. (1984). *The influence of selection and socialization on insider sense-making*. Paper presented at the Academy of Management, Boston, MA.
- Tan, C. L., & Kramer, M. W. (2012). Communication and voluntary downward career changes. *Journal of Applied Communication Research, 40*, 87-106.
doi:10.1080/00909882.2011.634429
- Teboul, J. C. B. (1994). Facing and coping with uncertainty during organizational encounter. *Management Communication Quarterly, 8*, 190-224.
doi:10.1177/0893318994008002003
- Teboul, J. C. B., & Cole, T. (2005). Relationship development and workplace integration: An evolutionary perspective. *Communication Theory, 15*, 389-413.
doi:10.1111/j.1468-2885.2005.tb00341.x
- Templeton, G. F. (2011). A two-step approach for transforming continuous variables to normal: Implications and recommendations for is research. *Communications of the AIS, 28*.
- Thode, H. C. (2002). *Testing for normality*. Basel, Switzerland: Marcel Dekker, Inc.
- Tillsely, C., & Taylor, P. (2001). Managing the third age workforce: A review and agenda for research. In I. Golver & M. Branine (Eds.), *Ageism in work and employment*. Burlington, VT: Ashgate Publishing.

- Trevor-Roberts, E. (2006). Are you sure? The role of uncertainty in career. *Journal of Employment Counseling, 43*, 98-116. doi:10.1002/j.2161-1920.2006.tb00010.x
- U.S. Bureau of Labor Statistics. (2010a). *2010 SOC user guide: Standard occupational classification and coding structure*. Retrieved from http://www.bls.gov/soc/soc_2010_class_and_coding_structure.pdf.
- U.S. Bureau of Labor Statistics. (2010b). *Record unemployment of older workers does not keep them out of the job market*. Retrieved from <http://www.bls.gov/opub/ils/pdf/opbils81.pdf>.
- U.S. Bureau of Labor Statistics. (2017). *Number of jobs held, labor market activity, and earnings growth among the youngest baby boomers: Results from a longitudinal survey summary*. Retrieved from <https://www.bls.gov/news.release/nlsoy.nr0.htm>.
- U.S. Census Bureau. (2010). *2010 census data*. Retrieved from www.census.gov/2010census.
- Van den Berg, P. T. (2011). Characteristics of the work environment related to older employees' willingness to continue working: Intrinsic motivation as a mediator. *Psychological Reports, 109*, 174-186. doi:10.2466/01.09.10.PR0.109.4.174-186
- Van der Meulen, R., & Rivera, J. (2013). Gartner predicts by 2017, half of employers will require employees to supply their own device for work purposes [Press release]. Retrieved from <https://www.gartner.com/newsroom/id/2466615>
- Van Maanen, J. (1975). Breaking in: Socialization to work. In R. Dubin (Ed.), *Handbook of work, organization, and society* (pp. 67-120). Chicago, IL: Rand McNally.

- Van Maanen, J., & Schein, E. H. (1979). Toward a theory of organizational socialization. *Research in Organizational Behavior, 1*, 209-264.
- Vancouver, J. B., & Morrison, E. W. (1995). Feedback inquiry: The effect of source attributes and individual differences. *Organizational Behavior and Human Decision Processes, 62*, 276-285. doi:10.1006/obhd.1995.1050
- VanVianen, A. E. M., Dalhoeven, B. A. G. W., & DePater, I. E. (2011). Aging and training and development willingness: Employee and supervisor mindsets. *Journal of Organizational Behavior, 32*, 226-247. doi:10.1002/job.685
- Waldeck, J. H., & Myers, K. K. (2007). Organizational assimilation theory, research, and implications for multiple areas of the discipline: A state of the art review. In C. S. Beck (Ed.), *Communication yearbook* (Vol. 31, pp. 322-367). New York, NY: Lawrence Erlbaum.
- Waldeck, J. H., Seibold, D. R., & Flanagin, A. J. (2004). Organizational assimilation and communication technology use. *Communication Monographs, 71*, 161-183. doi:10.1080/0363775042331302497
- Wanous, J. P. (1992). *Organizational entry: Recruitment, selection, orientation, and socialization of newcomers* (2nd Ed.). Reading, MA: Addison-Wesley.
- Wells, N., Barnard, T., Mason, L., Ames, A., & Minnen, T. (1998). Work transitions. *The Journal of Nursing Administration, 28*, 50-56. doi:00005110-199802000-00009
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural*

- equation modeling: Concepts, issues, and applications* (pp. 56-75). Newbery Park, CA: Sage.
- Wethington, E., Kessler, R. C., & Pixley, J. E. (2004). Turning points in adulthood. In O. G. Brim, C. D. Ryff, & R. C. Kessler (Eds.), *How healthy are we? A national study of well-being at midlife* (pp. 586-613). Chicago, IL: The University of Chicago Press.
- Widaman, K., & Grimm, K. J. (2014). *Advanced psychometrics: Confirmatory factor analysis, item response theory, and the study of measurement invariance*. New York: Cambridge University Press.
- Zorn, T. E., & Gregory, K. W. (2005). Learning the ropes together: Assimilation and friendship development among first-year male medical students. *Health Communication, 17*, 211-231. doi:10.1207/s15327027hc1703_1