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WHAT IS THE MEANING IN THIS? TEACHERS' PROPENSITY TO SEARCH FOR MEANING IN LIFE DURING COVID-19 AND THE ROLE OF MEANINGFUL WORK

by

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A Dissertation Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

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ABSTRACT

WHAT IS THE MEANING IN THIS? TEACHERS' PROPENSITY TO SEARCH FOR MEANING IN LIFE DURING COVID-19 AND THE ROLE OF MEANINGFUL WORK

Seterra D. Burleson Old Dominion University, 2022 Director: Dr. Ian M. Katz

The global COVID-19 pandemic has presented notable challenges in teachers' career paths. In the present study, Super's life-span, life-space theory was applied to examine the interplay between K-12 teachers' propensity to search for meaning in life and meaningfulness attributed to their work role (i.e., meaningful work) in predicting career-relevant outcomes in the face of challenging circumstances over the course of a semester. A model was proposed in which propensity to search for meaning in life led to better work and career outcomes, an effect moderated by meaningful work. Longitudinal data from a sample of 617 teachers over eight outcome measurement timepoints across the fall 2020 semester was leveraged to test the model using a latent growth curve modeling approach. Meaningful work was positively related to selfrated job performance and intrinsic work motivation, an effect that was stable over time. Interactive effects between propensity to search for meaning in life and meaningful work were found for intrinsic work motivation and occupational turnover intentions. At low meaningful work, those with higher propensity to search for meaning in life had higher intrinsic work motivation at the start of the semester and over time than those with low propensity to search for meaning. At high meaningful work, those with higher propensity to search for meaning in life had higher occupational turnover intentions than those with low propensity to search for meaning. Important implications for our understanding of meaning-making regarding roles in the life-space during challenging circumstances in the life-span and the practical applications of these findings for professions, organizations, and leaders are discussed.

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CHAPTER I

INTRODUCTION

Across the life-span, as workers experience career milestones, transitions, and challenges, successful coping with major demands of the environment depends on workers' readiness to adapt in the face of such demands (Super, 1990). The COVID-19 pandemic provides a unique context in which professionals in fields like healthcare and education have simultaneously faced common sets of environmental demands in their professions, acting as a trigger point for career decision-making. Teachers have experienced notable uncertainty and demands associated with the pandemic, including rapid shifts from in-person to remote or hybrid teaching arrangements, anxiety related to the personal risk associated with shifts back to in-person work, and frequent fluctuations in job expectations and duties, leading to uncertainty and strain (Morrison, 2021). Schools have reported being short staffed, with 90% or more of educators reporting that burnout and pandemic-related stress, respectively, are serious problems for them and 86% indicating that they have seen more educators leaving the profession or retiring early since the start of the pandemic (National Education Association, 2022).

The National Education Association found at the beginning of 2021 in the United States that 32% of surveyed educators, and 29% of early career educators, reported having considered retiring or leaving their profession sooner than planned due to the pandemic. Similar numbers were reported in a United Kingdom National Education Union survey (Morrison, 2021; National Education Association, 2021; National Education Union, 2021). This has increased to 55% of educators at the start of 2022, a number consistent across teacher ages and occupational tenure (i.e., 50% of educators with 10 or fewer years of experience, 58% of those with 11-20 years of experience, and 57% of those with 21 or more years, 56% of those under 50 years old and 54% of those 50 and older; National Education Association, 2022).

The demands and challenges presented by the global pandemic have led some teachers to begin questioning their career plans and consider forgoing their teaching profession to chart new pathways towards alternate careers or retirement. Meanwhile, other teachers are likely to have responded to those challenges by framing them as something that they must overcome to fulfill a sense of purpose, importance, or meaningfulness in their lives, doubling down on work-related motivation and effort to perform to the best of their abilities under pressure (Elangovan et al., 2010; Serow, 1994). The teaching profession has a great deal of societally prescribed meaningfulness and often holds personal meaning for its members, who can draw on the prosocial, professional aims of disseminating knowledge and motivating younger generations to find meaning in their work (Serow, 1994). The intrinsic value of teaching and desire to make a societal contribution, shape the future, and work day-to-day with children and adolescents rank as some of the highest motivations for choosing teaching as a profession (Richardson & Watt, 2006). Given this, it is important to examine how teachers' search for purpose and meaning unfolds in challenging times.

As workers have become increasingly driven by a search for meaning in their lives and careers over time, scholars have advocated for efforts to understand how meaning, purpose, and values influence career development in the face of unplanned events, suggesting that such an approach would provide a contrasting perspective to traditional approaches emphasizing fit between the career and the traits of the person (Krumboltz, 1998; Mitchell et al., 1999; Savickas, 2000; Sterner, 2012). Workers differ in their propensity to search for meaning in life, a trait-like characteristic, and in the meaning they ascribe to their current work role (i.e., meaningful work;

Steger et al., 2006; Steger & Dik, 2010). However, there is a dearth of empirical evidence regarding how propensity to search for meaning in life and meaningful work come into play when workers experience challenges in their career paths. Super's (1980, 1990) life-span, lifespace approach to career development frames meaning as a key factor influencing workers' motivation and performance, particularly in the sphere of life meaning is attributed to (e.g., work, school, home), and meaning also plays an important role in determining the ability of workers to navigate and master challenges they encounter in their career paths (Roberson, 1990; Steger & Dik, 2010; Super et al., 1996).

In the present study, Super's life-span, life-space approach to career development (Super, 1980, 1990) is applied to examine the interplay between 1) K-12 teachers' propensity to search for meaning in life during uncertain and challenging circumstances and 2) perceived meaningful work in predicting career development outcomes at the start of the school year and change in those outcomes over the course of a semester during the global COVID-19 pandemic. Specifically, propensity to search for meaning in life is examined in association with teachers' intrinsic work motivation, self-rated job performance, and occupational turnover intentions to understand whether those who tend to search for meaning in life have better career outcomes in challenging times when compared to those who find their work to be less meaningful. Work meaningfulness is examined as a moderator to provide an understanding of whether meaning teachers' attribute to their work roles directs the energy of teachers who have a propensity to search for meaning in life in a way that leads to more positive outcomes compared to a low degree of meaning.

A model (Figure 1), elaborated upon in subsequent sections, is proposed, positioning search for meaning in challenging circumstances in the context of Super's (1980) life-span, life-

space theory. Propensity to search for meaning in life in challenging times is framed as predisposing workers to have better professional outcomes in terms of motivation and behavior in the face of unexpected career-relevant events in the life-span. Workers' subjective meaning attributed to their work role in the life-space is included as a moderator of that relationship, directing search for meaning's influence on career-relevant motivation and behavior.

Figure 1





An examination of these relationships offers two main contributions. First, life-span, lifespace theory suggests that challenging circumstances in the life-span can trigger evaluations and promote career-related decision-making behavior, with meaning-making playing a central role in the process (Super et al., 1996; Super & Knasel, 1981). This study provides a test of Super's proposition, examining the role of meaning-making in influencing outcomes in the work role during the uncertain circumstances of the COVID-19 pandemic. Second, though meaningful work has been studied as a predictor of individual- and organization-level benefits, the role of meaningful work during challenging circumstances in the life-span and in the context of careers has not been established (Allan et al., 2019; Steger & Dik, 2010; Ward & King, 2017). Moreover, meaning in life and, specifically, propensity to search for meaning in life have yet to be studied thoroughly within disciplines related to organizational and career behavior, where they have clear implications (Ward & King, 2017). This paper offers a novel perspective on work meaningfulness in examining how meaningful work and the broad search for meaning in life contribute, in tandem, to teachers' career related motivation and behavior.

Challenging Circumstances and Life-Span, Life-Space Theory

Super's (1980) life-span, life-space theory is recognized by scholars as a useful framework for understanding vocational development and behavior, building on foundations of developmental psychology and personality theory and having substantial utility and empirical support for its propositions (Hackett et al., 1991; Osipow & Fitzgerald, 1996). The life-span, life-space approach to career development frames the career as the combination and sequence of roles held over the course of a person's lifetime, including those of the worker, spouse, parent, and volunteer, among others (Super, 1957, 1980). The life-space constitutes the combination of interacting, varying roles held at any given moment, while the life-span constitutes the sequential combinations of roles held over a lifetime (Super, 1980).

As workers encounter challenges, changes, and opportunities in their careers, the lifespan, life-space approach posits that the meaning ascribed to the roles they hold influences associated career decision-making and shifts in role performance (Super, 1980; Super et al., 1996). Challenges encountered in workers' life-spans are often unrelated to age or maturation, instead being triggered by unpredictable adaptive tasks (Super et al., 1996). Challenges demanding reactive change or adaptation, such as those presented by the COVID-19 pandemic, often act as a catalyst for career development and sense-making (Super et al., 1996; Super & Knasel, 1981). It follows that, when confronted with the unavoidable challenges and uncertainty presented by the global pandemic, teachers would have been prompted to consider their work role in their broader life-span and life-space, leading to associated shifts in intrinsic work motivation, job performance, and desires to remain in or leave their occupation over time.

Propensity to Search for Meaning in the Life-Span and Life-Space

Frankl (1964) described the search for meaning as the primary motivation for human behavior. Distinct from constructs associated with coping, search for meaning is central to the process of adapting to stressful encounters in prominent and valued life domains, informing and shaping responses to stressful events (Lazarus, 1966; Lazarus & Folkman, 1984; Park & Folkman, 1997; Schwarzer & Knoll, 2003). Search for meaning, therefore, has important implications for career motivation, behavior, and decision-making, particularly for those who encounter major challenges in their professions. When people find that stressful circumstances cannot be solved or ameliorated through their efforts, they often respond by attempting to control the meaning of the situation or problem (Lazarus & Launier, 1978; Park & Folkman, 1997; Pearlin & Schooler, 1978), a likely occurrence in the COVID-19 pandemic, which was beyond the control of any one worker. Despite commonly held beliefs that search for meaning only manifests in the face of a lack of meaning in life or in response to stress-inducing events, search for meaning is supported as independent and distinct from the presence of meaning and has a good degree of variability in a variety of samples when assessed as a global construct (Steger et al., 2006). Dispositional styles of coping with stressful situations have been proposed as potential contributors to the meaning-making process, but empirical research on the effects of such dispositions is limited (Park & Folkman, 1997). Existing research on dispositional coping styles focuses on problem solving, emotion-focused, and distancing-avoidance styles of coping as well as dispositional mindfulness (e.g., Bouchard et al., 2004; Finkelstein-Fox et al., 2019; Mauno & Rantanen, 2013; Park & Adler, 2003), but research to date has yet to examine the effects of dispositional tendencies to search for meaning.

Propensity to search for meaning in life is defined as the "strength, intensity, and activity of peoples' desire and efforts to establish and/or augment their understanding of the meaning, significance, and purpose of their lives" (Steger et al., 2008, p. 200). It is the extent to which an individual worker tends to actively seek out meaning in their life (Steger et al., 2006). Propensity to search for meaning in life has been examined as a trait-like variable, exhibiting variation across the population (Steger et al., 2006, 2008, 2012). Search for meaning is distinct from selfesteem, openness to experience, optimism, and life satisfaction (Steger et al., 2006, 2008). An examination of propensity to search for meaning in life as an individual difference that influences career-related motivation and behavior aligns with calls to integrate the existentialist search for significance, meaning, and purpose into Super's (1980) life-span, life-space approach (Sterner, 2012). Applying Super's theory, it is evident that meaning in life is influenced by the variety of roles and theatres that encompass the broad life-space (Super, 1980, 1990; Super et al., 1996). The lack of a clear definition of "meaning" in the propensity to search for meaning construct is intentional, to allow for an incorporation of individual attributions of and criteria for meaning (Steger et al., 2006).

Meaningfulness scholars have framed search for meaning as an individual difference and propensity to search for meaning in the face of stress-inducing or uncertain circumstances as important areas of research to explore (e.g., Steger et al., 2006). Despite clear connections between meaningful work and perceived meaningfulness in life, the vast majority of empirical research examining the role of meaning in the workplace has focused on meaningfulness attributed to work rather than that attributed to the broader life domain (Allan et al., 2019; Ward & King, 2017). Furthermore, while meaning in life's implications for wellbeing have been examined, the relationship between search for meaning in life and organizational outcomes, such as absenteeism, affective commitment, turnover intentions, and performance, have not been tested outside of the construct of meaningful work (Ward & King, 2017). To fill these gaps, the present study provides an examination of propensity to search for meaning in life's relationship with organizational and career outcomes in the face of unexpected events in the life-span.

Search for Meaning and Intrinsic Work Motivation

Search for meaning is one of the primary motivations in life (Frank1, 1964; Pratt & Ashforth, 2003). While it often leads to the realigning of priorities and goals, it can also motivate and sustain coping over time (Folkman & Moskowitz, 2007). Intrinsic work motivation is the extent to which a worker is driven to expend effort performing work-related activities for their "inherent satisfactions rather than for some separable consequence" (Ryan & Deci, 2000, p. 55; Tremblay et al., 2009). The emphasis on the self and individual values in the construct of intrinsic work motivation suggests that workers' propensity to search for meaning, one of the

primary motivations in life (Frankl, 1964; Pratt & Ashforth, 2003), is an important predictor of intrinsic work motivation to examine in the context of Super's (1980, 1990) life-span, life-space theory.

"Perceptions of meaningfulness must necessarily travel through the self" (Rosso et al., 2010, p. 15), and it is, therefore, expected that propensity to search for meaning in periods of uncertainty would lead workers' to draw from their various sources of meaning in life in the life-space for intrinsic work motivation. Super's theory would suggest that sources of meaning workers turn to in the face of challenging events in the life-span may originate from a variety of roles in the life-space, such as work roles, parental roles, spousal roles, and volunteer or personal roles (Super, 1980; Super et al., 1996). Meaningfulness attributed to the work role is typically highly valued by workers, despite the given necessity of work to fulfill needs and material desires (De Boeck et al., 2019; Meaning of Work International Research Team, 1987). Workers are drawn to occupations resembling their preferred selves, leading to purposeful subjective reflection that develops perceptions of meaning associated with the work role (Hartung, 2013).

As noted previously, teachers are particularly disposed to view their profession as important and having a broader impact beyond the self (Richardson & Watt, 2006; Serow, 1994). Workers pursuing work roles they perceive to have a clear call to action, clarity of purpose and personal direction, and prosocial intentions (i.e., callings) are more poised than others to escalate their commitment and effort to achieve positive work-related outcomes upon encountering setbacks and negative career outlooks (Elangovan et al., 2010). As workers report a desire for an intrinsically interesting and satisfying work role (Meaning of Work International Research Team, 1987), it is expected that teachers who have a strong propensity to search for meaning in life, compared those with low propensity to search for meaning, would display a higher degree of intrinsic work motivation at the start of the school year and stronger increases in intrinsic work motivation over time during challenging circumstances, such as the COVID-19 pandemic.

Hypothesis 1: Propensity to search for meaning in life is positively associated with a) initial levels (i.e., intercept) of intrinsic work motivation (i.e., at the start of the school year) and b) the rate of positive change (i.e., slope) of intrinsic work motivation over time (i.e., over the course of the first half of the school year).

Search for Meaning and Self-Rated Job Performance

Though Super's life-span, life-space theory is often applied to understand career development and development of a vocational self-concept from childhood through early adulthood, it has clear intended applications across the life-span with an emphasis on role performance when it comes to later career stages (e.g., maintenance and establishment), when people have settled into a career pathway (Hartung, 2013; Super, 1980). However, there is little empirical research applying Super's life-span, life-space theory to examine career-relevant outcomes in the context of adult career stages in the life-span, leading scholars to position performance as a key outcome to examine in the context of Super's theory (A. Cohen, 1991; Hom et al., 2010). Performance, in Super's theory, is defined in terms of both other- and selfperceptions of satisfaction with enactment of a role in the life-space (Super, 1980), making selfrated job performance an important outcome of interest to examine in the context of Super's theory. In line with Super and colleague's (1996) proposition that work-role behavior is shaped by the meaning and focus provided by various life roles, it is expected that those who are high in propensity to search for meaning in life draw on meaning in the work role to motivate them to perform to the best of their abilities in the face of challenging circumstances.

As previously stated, the prosocial nature of the teaching profession, makes it a clear source from which teachers can draw meaning in the life-space to help them adapt when facing uncertain or challenging circumstances in the life-span (Serow, 1994). As with intrinsic work motivation, teachers may be predisposed to draw on meaning from their work role to give meaning to life, framing the COVID-19 pandemic as a challenge that must be overcome and devoting increased time and energy to the work role (Elangovan et al., 2010). Even retired teachers and principals have been found to be most satisfied in retirement when they were still performing activities relevant to their roles as educators, demonstrating the importance of work in developing a sense of meaning, purpose, and self-concept and influencing satisfaction and success in the work role over time (Steer, 1970; Super, 1980). It follows that, as workers are confronted with challenging career-related events in the life-span (e.g., the COVID-19 pandemic) their propensity to search for meaning in life will be positively related to perceptions of their own performance in the work role, both in initial stages of confronting the challenging circumstance and as they continue to face associated demands over time.

Hypothesis 2: Propensity to search for meaning in life is positively associated with a) initial levels (i.e., intercept) of self-rated job performance (i.e., at the start of the school year) and b) the rate of positive change (i.e., slope) of self-rated job performance over time (i.e., over the course of the first half of the school year).

Search for Meaning and Occupational Turnover Intentions

Thoughts and decisions regarding whether to remain in a career or role or leave to pursue another path are also key indicators of career-related decision-making. This is why commitment to one's career and job and occupational turnover intentions are often positioned as outcomes in the context of Super's life-span, life-space theory (A. Cohen, 1991; Katz et al., 2019). Super and colleagues (1996, p. 128) state that, "individuals make decisions about work-role behavior, such as occupational choice and organizational commitment, within the circumstances imposed by the constellation of social positions that give meaning and focus to their lives." Workers encounter "decision points" in their career life-spans, in which events lead them to make conscious decisions of whether to continue working in a particular job or profession, transition to part time work, pursue another occupation, or retire (Super, 1980). The high degree of burnout and stress and associated turnover and retirement in the teaching profession related to the COVID-19 pandemic (National Education Association, 2021, 2022; National Education Union, 2021) suggest that it should be examined as one such triggering life event or decision point in the careers of teachers.

It stands to reason that teachers' propensity to search for meaning in life may lead them to draw on the prosocial nature of their profession, motivating them to remain in the teaching profession in an effort to overcome the challenges presented by the pandemic and fulfill values and aspirations associated with their work role (Elangovan et al., 2010; Richardson & Watt, 2006; Serow, 1994). This aligns with expectations regarding propensity to search for meaning in life's relationships with intrinsic work motivation and performance outlined earlier. From this perspective, teachers who display a high propensity to search for meaning in life would likely escalate their commitment to their profession when facing setbacks and negative career outlooks in the COVID-19 pandemic (Elangovan et al., 2010).

However, implementation of the self-concept in the work role is an important contributor to perceptions of a meaningful life, and challenging circumstances often make it difficult to draw from the work role for meaning (Hartung, 2013; Savickas, 2011). This could lead workers who are high in propensity to search for meaning in life to seek realization of their self-concepts in other roles in the life-space and alternative work prospects. In this contrasting perspective, teachers with a stronger propensity to search for meaning in the COVID-19 pandemic may interpret the challenging circumstance as a sign that they should make a change and pivot away from their teaching profession. In this line of thought, intentions to leave the profession would likely be present at the start of the school year and become stronger over time as the day-to-day challenges associated with teaching during a global pandemic compound, intensifying initial concerns about remaining in the profession. Therefore, the anticipated direction of the relationship between propensity to search for meaning in life and occupational turnover intentions is less clear than that with intrinsic work motivation and performance. It is important to examine this relationship to understand how challenging circumstances contribute to career decision-making in the life-space.

Research Question 1: How is propensity to search for meaning related to a) initial levels (i.e., intercept) of occupational turnover intentions (i.e., at the start of the school year) and b) the rate of negative change (i.e., slope) of career turnover intentions over time (i.e., over the course of the first half of the school year)?

Search for Meaning and Meaningful Work in the Life-Span and Life-Space

Work roles are considered to be a central source of order and meaning in life (O'Toole, 1972; Super, 1957, 1980). Meaningful work constitutes perceptions of one's work role as being worthwhile, important, and valuable (Hackman & Oldham, 1976; Pratt & Ashforth, 2003). It is a subjective evaluation of the significance and purpose of one's work (Lips-Wiersma & Wright, 2012). Meaningful work is associated with many work- and nonwork-related outcomes, including psychological wellbeing, life satisfaction, meaning in life, job satisfaction, work engagement, job performance, organizational citizenship behavior, organizational commitment, and turnover intentions (Allan et al., 2019; Arnold et al., 2007). However, most research regarding meaningfulness at work is focused on day-to-day desirable outcomes rather than the role of meaningfulness in periods of uncertainty, and it has also centered around the individual benefits of meaning, as opposed to career and organizational outcomes (Steger & Dik, 2010). Consistent with the life-span, life-space approach to career development, in which the various roles held in a person's life at any moment contribute to the life-space (Super, 1980), meaningful work can be conceptualized as a sub-domain of meaning in life and has moderate to strong empirical associations with life meaning constructs (Allan et al., 2015, 2019). Many scholars contend that the work domain or role, as termed in life-span, life space theory, provides structure to life and gives it meaning (Allan et al., 2015; Savickas, 1997; Super, 1957, 1980).

When positioned in Super's life-span, life-space approach to career development, teachers' career-related behaviors in the COVID-19 pandemic can be viewed in relation to a process of meaning-seeking and meaning-making in which the meaningfulness of ones work is evaluated within the broader scope of one's life, motivating career-related behavior, such as performance and turnover (Super et al., 1996). This is in line with the worker-centric perspective on meaningful work, in which workers are active agents in a subjective meaning-making process related to the work role, as opposed to work having inherent meaningfulness due to its nature, for example as prosocial or "dirty" work (De Boeck et al., 2019; Lips-Wiersma & Wright, 2012; Wrzesniewski & Dutton, 2001). In their discussion of meaning in the context of stress and coping, Park and Folkman (1997) distinguish between global meaning, involving a person's valued goals and lasting beliefs, and situational meaning, an appraisal of the meaning of an event and the search for meaning formed through an interaction between a person's global meaning and a person-environment transaction. From this lens, meaningful work can be viewed as a global meaning, providing direction in the search-for-meaning process in situations of challenge and uncertainty.

Meaningful Work and Intrinsic Work Motivation

Meaningful work extends beyond environmental influences, such as work and job characteristics, to encompass deep aspects of workers' selves and internal appraisals of the work role is worthwhile and valued (Kahn, 1990). Meaningful work is interpreted within the context of the broader self, including personal lives (Pratt & Ashforth, 2003). Though workers with a strong propensity to search for meaning in life may draw on their work role for intrinsic work motivation, some may not attribute a great deal of meaning to their work, instead drawing on meaningfulness they attribute to other roles they hold in their life-space (e.g., caregiver or spouse). Given that meaningfulness can come from varying sources in the life-space, it is important to understand how the significance of work, or meaningful work, within-person can direct meaning making and associated intrinsic work motivation in the work context, particularly during periods of uncertainty and unexpected demands.

Meaningful work is thought to enable employees to act in ways that are congruent with their self-concepts (De Boeck et al., 2019; Pratt & Ashforth, 2003; Rosso et al., 2010), and people are motivated to reduce discrepancies between their actual and ideal selves (Higgins, 1987). Therefore, during challenging circumstances in the life-span, workers who have a propensity to search for meaning and attribute a high degree of meaning to their work role are likely to experience increases in intrinsic work motivation to help them cope. Accordingly, the salience of a purpose and degree to which one values a purpose, can lead to sustained motivation to engage in instrumental coping day-to-day in periods of chronic stress (Folkman & Moskowitz, 2007). On the other hand, workers with a high propensity to search for meaning and a low level of work meaningfulness may draw on other roles in the life-space for intrinsic work motivation during periods of uncertainty, making the effects of search for meaning on their intrinsic work motivation less pronounced compared to those who ascribe high meaning to the work role. As work motivation and performance are believed to improve when meaningful work is high (Roberson, 1990), it is expected that meaningful work will strengthen the relationship between propensity to search for meaning in life and intrinsic work motivation in challenging circumstances.

Hypothesis 3: The positive relationship between propensity to search for meaning in life and a) initial levels of intrinsic work motivation (i.e., intercept) and b) the rate of change (i.e., slope) of intrinsic work motivation over time is moderated by meaningful work such that the relationship is stronger at high levels of meaningful work.

Meaningful Work and Self-Rated Performance

Super (1980) states that the importance of roles waxes and wanes and that quality of performance shifts in alignment with importance attributed to roles in the life-space. Incorporating meaningful work into the understanding of how propensity to search for meaning in life relates to work role performance can provide an empirical test of this proposition, answering calls for such testing of Super's life-span, life-space model's relevance in early to late adulthood (e.g., Super & Knasel, 1981). Workers who view their work role as a calling are more willing than workers who view their work as less meaningful to take the initiative to perform above and beyond organizational expectations, making sacrifices in their personal lives (i.e., other roles in the life space) in the interest of maintaining a high level of work performance (Elangovan et al., 2010; Serow, 1994). Though certain work roles have prosocial socially prescribed meaningfulness, it is workers' subjective attributions of meaningfulness that guides behavior (Elangovan et al., 2010; Pratt & Ashforth, 2003; Serow, 1994). People typically have two to three core roles in the lifespace, and role salience explains the relative importance ascribed to those roles, encompassing behavioral, emotional, and values-based components and representing the degree to which people participate, feel invested, and expect to achieve goals in that role (Hartung, 2013; Super et al., 1996). Role salience can explain why a worker may spend a good deal of time in their work role and expect associated extrinsic rewards but not be devoted to that role to the same degree as their devotion to other roles in the life-space (Hartung, 2013). This suggests that, if a worker has a high propensity to search for meaning in life and does not ascribe a high degree of meaning to their work role, their search for meaning in periods of uncertainty may lead them to expend their efforts in other, more highly valued roles in their life-space, such as their role as a parent or volunteer, limiting the benefits of search for meaning for work role performance.

In line with this, researchers found in a qualitative study of workers in a variety of occupations that meaningful moments at work were often framed in the context of the broader life-space, including their family and their community (Bailey & Madden, 2016). On the other hand, Serow (1994) found that teachers who reported having a high degree of calling would make more personal sacrifices and devote more time to the work role than those who did not have a high sense of calling. Additionally, Harris et al. (2007) found that in the presence of abusive supervision those who perceived their work to be highly meaningful had higher self-rated performance than those who perceived their work to be less meaningful. These findings are in line with propositions that those with high work meaningfulness are likely to perceive escalation of effort in the face of setbacks to be worthwhile (Elangovan et al., 2010). Therefore,

workers who are high in propensity to search for meaning and work meaningfulness are likely to escalate effort, rather than pull back, even when changing career paths may be viewed as a rational choice by others in the field. Taken together, in the face of challenging circumstances, the relationship between workers' propensity to search for meaning in life and performance is expected to be stronger for those who find their work to be highly meaningful.

Hypothesis 4: The positive relationship between propensity to search for meaning in life and a) initial levels of self-rated job performance (i.e., intercept) and b) the rate of change (i.e., slope) of self-rated job performance over time is moderated by meaningful work such that the relationship is stronger at high levels of meaningful work.

Meaningful Work and Occupational Turnover Intentions

As noted earlier, Super (1996) suggests that decisions regarding occupational choice are made within the umbrella of the constellation of roles that are sources of meaning and focus in life, including the work role. Life-span, life-space theory assumes that the work role is not always the role that is the key driver of career-related behavior, motivation, and decision-making (Super, 1957, 1980, 1990). The work role's influence on career-related decision-making is dependent on the importance a worker ascribes to that role in the life-space and in the life-span (Hartung, 2013), with the same role holding different levels of meaningfulness for workers with differing life-space priorities (Super et al., 1996). Therefore, propensity to search for meaning in life is likely to influence career decision-making differently depending on the degree to which the work role holds meaning for the worker.

Meaningfulness scholars suggest that individual-level meaningful work translates to organization-level benefits, including reduced turnover (Steger & Dik, 2010). In the literature regarding career callings, which are often framed as pathways to infusing attributions of purpose and meaningfulness into work roles (Dik & Duffy, 2009; Elangovan et al., 2010), scholars contend that workers pursuing callings are more poised than others to escalate their commitment to achieve positive work-related outcomes in the face of setbacks and negative career outlooks (Elangovan et al., 2010). Teaching is a profession in which a sense of calling is common, and in a study of education students, those who felt a calling in their profession were more likely than those who were not called to teach to demonstrate commitment to their careers (Serow, 1994). Those who find their work role to be highly meaningful, as with those pursuing career callings, are often more willing to persist in the face of career challenges, deeming the ends to justify the means and underestimating or having a high tolerance for associated risks (Elangovan et al., 2010).

However, it is clear that the demands and challenges associated with the COVID-19 pandemic have led many teachers to contemplate transitioning to alternate career pathways (National Education Association, 2022, 2022; National Education Union, 2021). In their search for meaning, workers who are high in propensity to search for meaning and low in work meaningfulness may be frustrated at their inability to implement their self-concept at work, an important factor in meaningful life perceptions (Hartung, 2013; Savickas, 2011), particularly when facing ongoing demands and uncertainty in the life-span. Meaning derived from such experiences may be interpreted as a sign that they should consider changing their profession or retiring. Therefore, workers who have a high degree of propensity to search for meaning in life and a low level of meaningful work are likely to seek realization of their self-concepts in other valued roles in the life-space and alternative career paths. Accordingly, for those teachers low in meaningful work, the relationship between propensity to search for meaning in life and initial levels of occupational turnover intentions and change in occupational turnover intentions over time is expected to be positive, in the face of demands and uncertainty. In contrast, despite encountering challenging and foreboding career circumstances, it is expected that propensity to search for meaning in challenging circumstances would be negatively associated with intentions to leave the teaching profession at the start of the school year and over time for teachers who find their work role to be highly personally meaningful (Serow, 1994).

Hypothesis 5: The relationship between propensity to search for meaning in life and a) initial levels of occupational turnover intentions (i.e., intercept) and b) the rate of change (i.e., slope) of career turnover intentions over time is moderated by meaningful work such that the relationship is more negative at high levels of meaningful work.

CHAPTER II

METHOD

Participants and Procedure

The original study in which this data was collected was reviewed and approved by University of Alabama's Institutional Review Board (IRB; Protocol # 20-07-3743) prior to the collection of data, and the present study was submitted to Old Dominion University's IRB Human Subjects Review Committee prior to conducting data analysis. Data were collected over consecutive timepoints, as longitudinal approaches of measurement are consistent with best practices when it comes to understanding reactions to stressful events (Schwarzer & Knoll, 2003). Participants were recruited through a partnership with a national association of teachers in the United States. Initial survey invitations were sent to K-12 school principals asking them to share an invitation to participate in the study with their teachers. Principals were informed they would not have access to teacher responses and would not be able to be active participants in the study. Teachers were given the option to share the recruitment survey link with other teachers in their professional network. posted via a direct link on social media platforms (e.g., Facebook groups) in closed groups to prevent surveys being accessed by non-teachers and computer bots. The qualification survey was open from July 31st to September 8th, 2020, prior to the start of the 2020-2021 school year. All teachers who accessed the survey were prompted with an informed consent form informing them of the purpose of the study, participation expectations, and time required to complete the survey (i.e., approximately 8-10 minutes). It was noted that there were no anticipated risks of participating in the study and that there would be no direct benefits of participating, though participants were notified that the study would help inform efforts to support teachers and schools in the future. Teachers were assured confidentiality of their data, in

that emails would be retained in a secure location to distribute and link follow-up surveys and deleted upon the termination of the study. Participation was voluntary, and participants were informed that they may withdraw at any time without penalty.

Of 2,311 individuals who accessed the qualification survey, 1,943 K-12 teachers (84.08%) provided consent and completed the survey, and 1,137 (58.52%) of those gave consent to be contacted to participate in follow-up surveys and provided a valid email address. Propensity to search for meaning and meaningful work were measured in the qualification survey, along with demographic variables. Therefore, the trait-like propensity to search for meaning variable and global, rather than situational, perceptions of meaningful work (see Park & Folkman, 1997) were measured prior to the start of the semester, when the first measurements of outcome variables of interest were recorded. Teachers who participated were asked to provide a valid email address to receive invitations for a series of additional surveys to be distributed every two weeks over the course of the fall semester. Email invitations were distributed for each follow-up survey in which teachers were reminded of the purpose of the study and their prior indication of willingness to participate in follow-up surveys. Teachers were prompted to click a link to begin the follow-up survey if desired. The teachers were given the option to be removed from the mailing list if desired by unsubscribing via an attached link. Prior to completing each follow-up, teachers were prompted with an informed consent form containing nearly identical information to that provided in the qualification survey. Teachers were informed that participation in each survey was voluntary and would take approximately 5-7 minutes.

To account for national variation in school start dates, follow-up surveys began approximately two weeks after teachers' self-reported first day for students and were administered on a rolling basis. In total, eight follow-up surveys were sent out every two weeks through December 17th, 2020, in line with Chan's (1998) recommendation that data be collected at a minimum of three time points to test longitudinal hypotheses and Preacher et al.'s (2008) assertion that reliable latent growth model estimates are best achieved through frequent assessment. All outcome variables were measured in each follow-up survey. Survey invitations were sent out on Thursdays, and reminders were sent on Saturdays. The number of follow-up surveys made available to participants varied from five to eight, depending on the self-reported start date at baseline.

Of the 1,137 teachers who provided consent to participate in follow-up surveys, 617 (54.27%) completed the qualification survey and at least one follow-up survey, in addition to the initial qualification survey, and were retained for analyses. For the final sample of 617, the average number of survey responses completed was 3.46 (SD = 2.17). In the final sample, most participants identified as women or female when asked to provide their gender in an open response format (n = 570; 92.38%), and most teachers were White (92.71%). The teachers were between 23 and 69 years in age with the mean age being 45.88 (SD = 9.60) years. The majority were married or living with a partner (n = 452; 73.26%) and were part of a dual-earner household (n = 412; 66.77%), and at least 279 (45.22%) had one or more children 18 years of age or younger living in their household, and 168 assisted in the care of dependent adults (e.g., older or disabled relatives; 27.23%). Teachers surveyed had a tenure averaging 9.45 years (SD = 7.82) years at their current schools and 17.56 years in the education career pathway (SD = 8.40).

Statistical Power

Statistical power depends on sample size, effect size, and the rate of Type I error (J. Cohen, 1988). Using a Monte Carlo simulation design, Fan and Fan (2005) found the power to detect a small growth effect (i.e., d = .20) using latent growth modeling reaches an adequate

power level of .80 (J. Cohen, 1988) at α = .05 when the sample size is 200 or greater and begins to max out at around 400. The present study meets these thresholds and aligns with prior research. In a similar study, Fan (2003) found that, with the Type I error criterion set to .05, to reliably detect a small group difference in intercept or slope of a growth trajectory (H₁₋₂, RQ₁), a sample size of greater than 500 is often required to obtain power of .70 to .80, and a sample of 100 to 200 is sufficient for obtaining adequate power to detect a medium group difference in intercept or slope. Beauchaine et al. (2005) found significant moderating effects in LGM (H₃₋₅) with a sample of 514 families and at least 28.6% of participants missing data at one of the three observed timepoints. Both continuous and categorical moderating effects were observed. Though sample size thresholds for the inclusion of moderators in LGM have not been established, simulations using other LGM designs, research findings using similar designs, and the large number of measurement points suggest the adequacy of power of the available sample of 617 to test the proposed hypotheses can be reasonably inferred.

Attrition Analyses

To assess potential for bias due to attrition, a series of one-way ANOVAs were conducted in IBM SPSS Statistics Version 24 (SPSS) to determine whether there were subgroup differences between participants who were included in analyses (n = 617; Group 1), those who opted in to participate in follow-ups but did not complete any follow-up surveys (n = 520; Group 2), and those who declined participation in follow-up surveys (n = 806; Group 3). Specifically, subgroup differences in predictors and control variables measured in the qualification survey (i.e., propensity to search for meaning, meaningful work, age, and occupational tenure) were examined. Teachers who participated in follow-up surveys were assigned a 0, those who opted in but did not complete follow-ups were assigned a 1, and those who declined to participate were assigned a 2. No significant differences between groups were observed for propensity to search for meaning in life, F(2, 1939) = 0.44, p = .642; meaningful work, F(2, 1938) = 0.86, p = .425; age, F(2, 1871) = 2.89, p = .056; or occupational tenure, F(2, 1936) = 2.98, p = .051, suggesting limited potential for bias due to attrition (Enders, 2010; Rubin, 1976). All of the primary analyses in the proposed study utilized maximum likelihood estimation in Mplus 8.0 (Muthén & Muthén, 1988-2017), which assumes a missing at random (MAR) data loss pattern (Kline, 2016; Peters & Enders, 2002).

Measures

Apart from propensity to search for meaning, all constructs were assessed with singleitem measures to reduce participant burden that is incurred when participating in consecutive data collection efforts. Managing survey time commitments by reducing scale length and, therefore, survey length is an important strategy for increasing response rates that are often reduced by fatigue due to oversurveying (Rogelberg & Stanton, 2007; Stanton et al., 2002). Additionally, research suggests that participant responses become more careless as participants progress through a survey, further indicating the importance of survey brevity (Bowling et al., 2021). Single-item measures are a useful approach for reducing likelihood of response bias associated with participant fatigue and are, therefore, noted by researchers to be useful in lengthy surveys and longitudinal data collection efforts, such as those using experience sampling methods (C. D. Fisher & To, 2012; Gabriel et al., 2019; Uy et al., 2010).

When compared to multi-item measure use, the two main advantages of single-item measure adoption are: 1) the reduction of survey length, retention rates, and participant fatigue and 2) fewer issues with construct contamination and redundancy (G. G. Fisher et al., 2016; Fuchs & Diamantopoulos, 2009; Matthews et al., 2022; Wanous et al., 1997). It is important to

note that single-item measures are considered to be most appropriately used to measure narrow constructs that are clear and unidimensional (Sackett & Larson, 1990; Wanous & Hudy, 2001), such as those measured with a single item in the present study. Prior to launch, eight teachers from the partnering teachers' association assessed the content validity of all survey items. The panel suggested only minor wording changes on a few survey items to support consistency with industry terminology.

Propensity to Search for Meaning

Propensity to search for meaning was measured using an adapted version of the 5-item search for meaning in life subscale of the Meaning in Life Questionnaire (MLQ) developed by Steger and colleagues (2006). Two items were dropped to reduce burden on participants. The authors found support for the internal consistency, temporal stability, factor structure and validity of the search for meaning in life subscale. For the original MLQ search for meaning in life subscale, responses ranged from 1 (absolutely untrue) to 7 (absolutely true). Discriminant validity has been established, using a multitrait-multimethod design, between search for meaning and constructs including self-esteem, optimism, and life satisfaction (Steger et al., 2006). To situate search for meaning in life in the context of challenging circumstances, each item was presented with the following stem, "When faced with a challenging circumstance, how often do you apply the following strategies to address those challenges?" The retained items were, "I search for meaning in my life," "I look to find my life's purpose," and "I search for something that makes my life feel significant." Responses were recorded on a frequency Likert-type scale ranging from 1 (never) to 5 (a great deal) to fit the provided prompt. In the present study, the internal consistency reliability of scores for the 3-item scale ($\alpha = .86$) exceeded minimum acceptable levels recommended by Nunnally and Bernstein (1994).

Meaningful Work

The single-item measure used to assess meaningful work was developed based on the 3item meaning subscale of Spreitzer's (1995) measure of empowerment. The measure adheres to a unidimensional conceptualization of meaningful work as a sense of one's work as being worthwhile, important, and valuable to them (Allan et al., 2019; Hackman & Oldham, 1976; Pratt & Ashforth, 2003; Rosso et al., 2010), making it appropriate for adaptation to a single-item measure. This is in contrast to multidimensional scales of meaningful work (see Lips-Wiersma & Wright, 2012; Steger et al., 2012) that are scrutinized for having potential issues with construct contamination, in that they often capture constructs that are viewed as sources or outcomes of meaningful work as opposed to meaningful work itself (Allan et al., 2019). In the originating scale, acceptable internal consistency reliability ($\alpha = .85$) was reported (Spreitzer, 1995). Demonstrating convergent validity, meaningful work, as measured in the originating scale, was found to correlate moderately with associated measures of impact and self-determination. The item used to assess meaningful work in this research is, "The work I do is important and meaningful to me." Responses were recorded on a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Intrinsic Work Motivation

The single-item measure used to capture intrinsic work motivation was developed based on the 3-item intrinsic motivation subscale of the 18-item Work Extrinsic and Intrinsic Motivation Scale (WEIMS) developed by Tremblay and colleagues (2009). For the original WEIMS, responses ranged from 1 (*does not correspond at all*) to 5 (*corresponds exactly*) to the extent to which each item represents their reasons for being involved in their work at present. Demonstrating criterion-related validity, intrinsic motivation was correlated in the expected
directions with theoretically associated outcomes, including job satisfaction, commitment, and turnover. The original subscale demonstrated acceptable internal consistency reliability ($\alpha =$.80). Matthews et al. (2022) examined the single-item measure of intrinsic work motivation's content validity by assessing "the degree to which the scale's items correspond to the construct's definition" (Colquitt et al., 2019, p. 1243), using a sample of working adults who are representative of samples of working populations. The single-item measure of intrinsic work motivation demonstrated a definitional correspondence estimate of .93, significantly stronger than the estimate of .83 for the multi-item version of the scale, t(138) = 6.96, p < .01, and considered to be a "very strong" estimate (Colquitt et al., 2019; Matthews et al., 2022). They also found that the single-item measure demonstrated an ICC test-retest reliability estimate between .69 and .75, which is considered good (Cicchetti, 1994; Matthews et al., 2022). In line with the measure evaluated by Matthews et al. (2022), intrinsic work motivation in the present study was evaluated using the stem, "Thinking about the past TWO WEEKS," followed by, "I did the work I did because it was inherently interesting and satisfying." Responses were recorded on a Likerttype scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Self-Rated Job Performance

To assess job performance, participants were asked to rate their performance using the item, "If your school's administration was asked about the past TWO WEEKS, how do you think they would rate your effectiveness as a teacher?" Responses were recorded on a 5-point scale ranging from 1 (*not effective*) to 5 (*extremely effective*). This scale reflects teachers' perceptions of how the school administration would rate their performance, as opposed to typical self-ratings of performance reflecting workers' direct perceptions of their own performance.

Occupational Turnover Intentions

The item used to measure occupational turnover intentions was adapted from an item used in Carlson et al. (2017) to reflect the teaching profession and school year rather than the job and the calendar year. The item was prefaced with the following stem: "Thinking about the past TWO WEEKS," and the item is, "How likely is it that you might quit/retire from teaching before the end of the 2020-2021 school year?" Responses were recorded using a forced choice format on a 4-point scale ranging from 1 (*extremely unlikely*) to 4 (*extremely likely*).

Controls

In Super's life-span, life-space approach to career development, career maturity is framed as being associated with the accomplishment of age-related and developmental tasks across the life span (Sterner, 2012; Super, 1980). There is mixed research regarding age and coping with challenging circumstances, with some findings suggesting that reliance on coping strategies may change over the life span (Park & Folkman, 1997). Additionally, pursuit of professional goals may start and stop across the life span due to changes in the life space (e.g., becoming a parent) and shifts in professions, meaning that one's occupational tenure may not coincide with their age. Workers tend to experience higher levels of intrinsic work motivation as they age, and tenure also relates to intrinsic motivation, with those who stay in a line of work gaining more benefits over time and likely having remained in their profession due to a sense of comfortability (Ng & Feldman, 2010b). Further, research suggests that age and tenure are important to consider in relation to job performance (e.g., Ng & Feldman, 2010a; Shirom et al., 2008; Waldman & Avolio, 1986; Wright & Bonett, 2002). Age and tenure are also associated with turnover, with those who are younger and less tenured tending to be more likely to leave their current role (Griffeth et al., 2000). To account for these factors, both age and occupational tenure were included as control variables in the proposed model. Age was assessed using the open response item, "What is your age?" Occupational tenure was assessed using the open response item, "How many years have you worked as an educator?"

CHAPTER III

RESULTS

Each variable was cleaned and assessed for outliers. Histograms and skewness and kurtosis values were assessed, and no evidence of any strong deviations from normality was observed for most variables (see Appendix A). Meaningful work was found to be negatively skewed, with a skewness value of -1.72, and kurtosis was found to be 3.72, indicating that the distribution was more heavy-tailed compared with a normal distribution. However, this was not concerning, as the data appeared normally distributed in the histogram depicting the meaningful work variable and there is no requirement that an independent variable in a regression model be normally distributed. To facilitate the interpretation of results and eliminate non-essential multicollinearity, predictor variables, with the exception of controls, were centered by subtracting a constant, the variable mean, from each score prior to creating each interaction term (J. Cohen et al., 2003; Robinson & Schumacker, 2009).

Multiple regression analysis assumptions were assessed following best practices (Tabachnick & Fidell, 2007). Scatterplots depicting the relationship between residuals and predicted values with a LOESS line were evaluated to determine whether the assumption of a linear relationship between the independent variable and dependent variable was violated for any proposed relationships between predictors and outcomes, and all LOESS lines fitted to scatterplots indicated that the assumption was not violated. Tolerance and Variance Inflation Factors (VIF) were examined to determine whether the independent variables were highly correlated with one another, or whether multicollinearity was an issue (J. Cohen et al., 2003). Tolerance values of < .10 can indicate potential for extreme collinearity, and similarly, a VIF of 10.00 can indicate construct redundancy (Kline, 2016). The tolerance and VIF values examined

indicated that multicollinearity in predictors is not a concern in the present study, with all tolerance values being at or above .98 and all VIF values falling at or below 1.01.

To test the assumption of homoscedasticity, constant variance of residuals, scatterplots of unstandardized predicted values were plotted against unstandardized residuals and interpreted, and the assumption of homoscedasticity was not found to be violated. Finally, to test whether the assumption of normality of residuals may have been violated for each outcome variable, Q-Q plots were examined, though violations of this assumption would influence standard errors of regression coefficients, as opposed to the coefficients themselves. The Q-Q plots indicated that the assumption of normality of residuals was not violated (see Appendix B). Descriptive statistics and intercorrelations were calculated for all study variables in SPSS (see Table 1).

Means, Standard Deviations, and Intercorrelations of Variables

<u> </u>	Maan	CD	1	2	2	4	5	6	7	0	0	10
Variable	Mean 2 77	SD	1	Z	3	4	3	0	/	8	9	10
1. Propensity to Search for Meaning (Q)	3.//	0.82										
2. Meaningful Work (Q)	4.44	0.78	.09*									
3. Age (Q)	45.88	9.60	.11**	02								
4. Occupational Tenure (Q)	17.56	8.40	.03	.01	.68**							
5. Intrinsic Work Motivation (T1)	2.99	1.11	.03	.20**	01	06						
6. Self-Rated Job Performance (T1)	3.68	0.81	.11	.15**	.06	.06	.25**					
7. Turnover Intentions (T1)	1.92	1.01	.13*	02	.05	.07	19**	17**				
8. Intrinsic Work Motivation (T2)	3.03	1.04	.04	.18**	.04	.01	.63**	.19*	25**			
9. Self-Rated Job Performance (T2)	3.65	0.91	.14*	.16**	.09	.09	.14	.61**	10	.29**		
10. Turnover Intentions (T2)	1.81	0.96	.13*	17**	.05	.04	29**	13	.74**	35**	18**	
11. Intrinsic Work Motivation (T3)	3.08	1.05	.19**	.16**	.05	.03	.56**	.24**	09	.58**	.32**	20*
12. Self-Rated Job Performance (T3)	3.65	0.86	.04	.14*	.09	.07	.24**	.42**	12	.36**	.51**	06
13. Turnover Intentions (T3)	1.76	0.92	.10	07	.03	05	24**	13	.65**	42**	23**	.78**
14. Intrinsic Work Motivation (T4)	3.14	1.07	.07	.16*	.04	.02	.65**	.23**	21**	.71**	.30**	42**
15. Self-Rated Job Performance (T4)	3.62	0.83	.07	.06	.14*	.09	.32**	.44**	14	.39**	.53**	27**
16. Turnover Intentions (T4)	1.83	0.98	.19**	14*	.08	.01	27**	15	.68**	27**	12	.79**
17. Intrinsic Work Motivation (T5)	3.15	1.07	.16**	.17**	.05	.00	.59**	.24**	10	.66**	.29**	31**
18. Self-Rated Job Performance (T5)	3.59	0.88	.03	.22**	.11	.08	.34**	.35**	19*	.27**	.55**	17*
19. Turnover Intentions (T5)	1.77	0.96	.09	13*	.10	.03	33**	10	.71**	35**	.17	.79**
20. Intrinsic Work Motivation (T6)	2.97	1.08	.05	.12	.15*	.08	.58**	.23**	21**	.59**	.26**	32**

Note. Q = Assessed in the qualification survey; T = Time; non-centered predictor means are reported; Turnover Intentions =

Continued

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
21. Self-Rated Job Performance (T6)	3.46	0.89	.04	04	.13*	.12	.22**	.48**	10	.27**	.54**	08
22. Turnover Intentions (T6)	1.74	0.93	.07	13*	.11	.04	26**	07	.77**	33**	07	.76**
23. Intrinsic Work Motivation (T7)	3.17	1.03	.08	.06	.03	02	.61**	.21*	22*	.58**	.26**	33**
24. Self-Rated Job Performance (T7)	3.45	0.84	.03	.06	.10	.15	.36**	.33*	21*	.45**	.44**	27**
25. Turnover Intentions (T7)	1.75	1.01	.13*	05	.15*	.06	34**	13	.72**	36**	09	.82**
26. Intrinsic Work Motivation (T8)	3.12	1.03	.02	.28**	.13	.07	.66**	.22	16	.64**	.25*	25*
27. Self-Rated Job Performance (T8)	3.56	0.93	.01	.17	.02	.05	.24*	.64**	01	.31*	.56**	13
28. Turnover Intentions (T8)	1.93	1.13	.31**	12	.16	.07	38**	11	.62**	30*	06	.67**

Note. Q = Assessed in the qualification survey; T = Time; non-centered predictor means are reported; Turnover Intentions =

Continued

Variable	11	12	13	14	15	16	17	18	19	20	21
12. Self-Rated Job Performance (T3)	.33**										
13. Turnover Intentions (T3)	22**	18**									
14. Intrinsic Work Motivation (T4)	.67**	.38**	34**								
15. Self-Rated Job Performance (T4)	.31**	.62**	19*	.45**							
16. Turnover Intentions (T4)	20*	18*	.74**	29**	20**						
17. Intrinsic Work Motivation (T5)	.67**	.35**	28**	.71**	.33**	23**					
18. Self-Rated Job Performance (T5)	.35**	.62**	28**	.29**	.50**	14	.32**				
19. Turnover Intentions (T5)	23**	17*	.79**	36**	22**	.80**	22**	29**			
20. Intrinsic Work Motivation (T6)	.60**	.34**	23**	.63**	.27**	30**	.68**	.26**	35**		
21. Self-Rated Job Performance (T6)	.34**	.56**	24**	.30**	.57**	14	.32**	.50**	17*	.32**	
22. Turnover Intentions (T6)	20*	07	.73**	39**	16*	.74**	27**	19**	.87**	32**	20**
23. Intrinsic Work Motivation (T7)	.56**	.20*	30**	.62**	.32**	24**	.65**	.24**	34**	.69**	.29**
24. Self-Rated Job Performance (T7)	.30**	.46**	39**	.46**	.59**	19*	.38**	.54**	34**	.33**	.60**
25. Turnover Intentions (T7)	21*	17*	.79**	32**	16	.75**	26**	17*	.83**	39**	19*
26. Intrinsic Work Motivation (T8)	.64**	.33**	17	.68**	.36**	34**	.61**	.29**	27*	.65**	.18
27. Self-Rated Job Performance (T8)	.28*	.53**	19	.35**	.58**	22	.42**	.46**	34**	.38**	.66**
28. Turnover Intentions (T8)	07	01	.68**	36**	17	.74**	32**	05	.76**	32	13

Note. Q = Assessed in the qualification survey; T = Time; non-centered predictor means are reported; Turnover Intentions =

Continued

Variable	22	23	24	25	26	27	
23. Intrinsic Work Motivation (T7)	33**						
24. Self-Rated Job Performance (T7)	31**	.38**					
25. Turnover Intentions (T7)	.86**	30**	29**				
26. Intrinsic Work Motivation (T8)	26*	.66**	.17	32**			
27. Self-Rated Job Performance (T8)	30**	.31**	.74**	21	.25**		
28. Turnover Intentions (T8)	.81**	32**	14	.75**	21*	20*	

Note. Q = Assessed in the qualification survey; T = Time; non-centered predictor means are reported; Turnover Intentions =

Measurement Model

The measurement model for propensity to search for meaning was tested using confirmatory factor analysis with maximum likelihood estimation in Mplus. A single-factor measurement model in which the three propensity to search for meaning scale items load onto a single latent factor was evaluated. As the model was just identified, model fit statistics could not be evaluated. In examining the 3-factor model, standardized loadings of each item onto the latent factor were strong for the items "I search for meaning in my life," $\lambda = .86, p < .001, 95\%$ CI [0.81, 0.90]; "I look to find my life's purpose," $\lambda = .84, p < .001, 95\%$ CI [0.78, 0.89]; and "I search for something that makes my life feel significant," $\lambda = .75, p < .001, 95\%$ CI [0.69, 0.81]. Further, the internal consistency reliability of scores for the 3-item propensity to search for meaning in life scale ($\alpha = .86$) was found to be acceptable (Nunnally & Bernstein, 1994), as stated earlier. Taken together, this suggests that the measurement model is adequate to conduct the proposed analyses.

Hypothesis Testing

Latent growth curve modeling (LGM) was adopted to test hypotheses in Mplus v.8 (Muthén & Muthén, 1988-2017) with time variant outcomes and time invariant predictors. LGM allows for the testing of intraindividual (i.e., within-person) change over time and interindividual (between-person) variability in intraindividual change over time as well as the antecedents and outcomes of change (Preacher et al., 2008). By including all outcome measurement points in the data, LGM provides superior reliability, compared to other methods of assessing change (Rogosa et al., 1982). Accordingly, the standard maximum likelihood estimation approach, which is robust to missing data, was used to test the proposed model (Preacher et al., 2008). First, univariate LGMs for each outcome variable (i.e., intrinsic work motivation, selfrated job performance, and occupational turnover intentions respectively) were fitted to determine the functional form of the growth curve for each outcome. The intercept represents the outcome at baseline (i.e., at the start of the school year) with higher scores representing higher starting levels, and the slope represents the trajectory of change in the outcome over the eight measurement points (i.e., over the course of the first half of the school year) with higher scores representing higher increases over time (Duncan et al., 2013). Intercept and slope were estimated using data collected over eight time points. Factor loadings were set from 0 (baseline) to 7 (the final survey time point) at equal intervals, reflecting the even temporal distance (i.e., approximately two weeks) between time points (see Figure 2).

Figure 2



Factor Loadings of Latent Growth Models for Outcome Variables

Note. Intrinsic Motivation = Intrinsic Work Motivation, IM = Intrinsic Work Motivation, Job Performance = Self-Rated Job Performance, JP = Self-Rated Job Performance, Turnover Intentions = Occupational Turnover Intentions, TI = Occupational Turnover Intentions.

Model fit statistics were examined for each model to determine whether each univariate LGM provides adequate fit to the data, indicating that change was represented by a linear form for each respective outcome. Overall change in each outcome over the course of the first half of the school year was tested by examining whether the mean of the latent slope (i.e., rate of change) for each outcome was significant. Next, the variance of the intercept and latent slope factors was examined to determine whether there were significant individual differences in the outcome levels at the start of the school year and in the growth rates of each outcome over the course of the first half of the school year (i.e., change over time) for teachers. A 10,000-iteration bootstrapping approach was used, and unstandardized results are reported.

As chi-square goodness-of-fit statistic is sensitive to sample size, particularly for large samples (i.e., N > 300), alternative fit indices will be included for model fit evaluation (Kline, 2016). In line with Hu and Bentler's (1998, 1999) recommendations, a comparative fit index (CFI) greater than or equal to .95, root-mean-square error of approximation (RMSEA) less than or equal to .06, and standardized root-mean-square residual (SRMR) under .08 would indicate acceptable model fit to the data.

For intrinsic motivation, a linear model provided good fit to the data, $\chi^2(31) = 31.99$, p = .42, CFI = .99, TLI = .99, RMSEA = .01, SRMR = .05, indicating that change was represented by a linear form for intrinsic work motivation. The mean of the latent slope was 0.02, p = .057, 95% CI [0.00, 0.03], suggesting that teachers' intrinsic work motivation did not change over time on average. The variance of the latent slope was 0.002, p = .40, 95% CI [0.00, 0.01], indicating there was not significant variation in how intrinsic work motivation changed over time among teachers. The mean of the latent intercept was 3.04, p < .001, 95% CI [2.95, 3.12], indicating a degree of confidence around the mean level of intrinsic work motivation at baseline. The

variance of the latent intercept was 0.672, p < .001, 95% CI [0.55, 0.80], indicating there was significant variation in initial levels of intrinsic motivation among teachers.

For self-rated job performance, a linear model provided good fit to the data, χ^2 (31) = 63.13, p < .001, CFI = .95, TLI = .96, RMSEA = .04, SRMR = .09, indicating that change was represented by a linear form for self-rated job performance. The mean of the latent slope was - 0.03, p < .001, 95% CI [-0.06, -0.02], suggesting that teachers' job performance significantly declined over time on average. The variance of the latent slope was 0.01, p = .008, 95% CI [0.004, 0.019], indicating there was significant variation in how job performance changed over time among teachers. The mean of the latent intercept was 3.71, p < .001, 95% CI [3.64, 3.78], indicating a degree of confidence around the mean level of self-rated job performance at baseline. The variance of the latent intercept was 0.42, p < .001, 95% CI [0.31, 0.56], indicating there was significant variation in initial levels of job performance among teachers.

For occupational turnover intentions, a linear model provided good fit to the data, χ^2 (31) = 35.84, p = .25, CFI = .99, TLI = .99, RMSEA = .02, SRMR = .04, indicating that change was represented by a linear form for occupational turnover intentions. The mean of the latent slope was -0.01, p = .07, 95% CI [-0.02, 0.00], suggesting that teachers' occupational turnover intentions did not significantly increase or decrease over time on average. The variance of the latent slope was significant at 0.003, p = .03, 95% CI [0.001, 0.007], indicating there was significant variation in how occupational turnover intentions changed over time among teachers. The mean of the latent intercept was 1.84, p < .001, 95% CI [1.74, 1.92], indicating a degree of confidence around the mean level of occupational turnover intentions at baseline. The variance of the latent intercept was 0.66, p < .001, 95% CI [0.00, 0.01], indicating there was significant variation in initial levels of occupational turnover intentions among teachers.

Next, to test the proposed study hypotheses, a conditional LGM (Bollen & Curran, 2006; Curran et al., 2010) including all outcome variables (i.e., intrinsic work motivation, self-rated job performance, and occupational turnover intentions) was examined. Time-invariant predictors, assumed to be independent of passage of time, are included in LGM when the goal is to evaluate hypotheses regarding the relationship between characteristics of individuals (i.e., between-person effects) and initial outcome levels (i.e., intercept) and rates of change in outcomes over time (i.e., slope; Curran et al., 2010). Therefore, propensity to search for meaning and meaningful work were included as time-invariant predictors, and age and occupational tenure were included as covariates, in line with Preacher et al. (2008). The effect of age and tenure on the intercept and slope for each outcome were included in model specifications. In line with prior research examining moderation in LGM (e.g., Beauchaine et al., 2005), the moderating effect of meaningful work was tested by examining the interaction between propensity to search for meaning and meaningful work in predicting outcome intercepts and slopes. Predictors were centered by subtracting a the mean from each score prior to creating the interaction term (J. Cohen et al., 2003; Robinson & Schumacker, 2009). A 10,000-iteration bootstrapping approach was used to obtain bias-corrected confidence intervals for each path coefficient. For the full model, standardized results are reported.

To evaluate the proposed hypotheses and research questions regarding the direct effects of propensity to search for meaning in life and each outcome, the strength of the relationship with the latent slope factor and intercept was assessed for each outcome. Specifically, the effect of propensity to search for meaning in life was examined in relation to intrinsic work motivation's intercept (H_{1a}) and slope (H_{1b}), self-rated performance's intercept (H_{2a}) and slope (H_{2b}) , and occupational turnover intentions' intercept (RQ_{1a}) and slope (RQ_{1b}) in the tested model for direction and significance.

Model fit statistics were examined to determine whether the LGM provided good fit to the data. This model showed overall good fit, $\chi^2(363) = 459.61$, p < .001, CFI = .97, TLI = .97, RMSEA = .02, SRMR = .06. Regression weights and standard errors are reported in Table 2. The set of predictors accounted for a significant amount of variance in the intercepts, or starting points, for intrinsic work motivation, $R^2 = .085$, p = .009; self-rated job performance, $R^2 = .076$, p= .046; and occupational turnover intentions, $R^2 = .047$, p = .021. The set of predictors did not, however, account for a significant amount of variance in slope (i.e., rate of change over time) for intrinsic work motivation, self-rated job performance, or occupational turnover intentions.

The direct effect of propensity to search for meaning in life on intrinsic work motivation was not significant, b = 0.05, p = .356, 95% CI [-0.06, 0.17], indicating that Hypothesis 1a, that propensity to search for meaning in life is positively associated with initial levels (i.e., intercept) of intrinsic work motivation (i.e., at the start of the school year), was not supported. Meaningful work was significantly related to intrinsic work motivation, b = 0.23, p < .001, 95% CI [0.12, 0.33]. The interaction between propensity to search for meaning in life and meaningful work in predicting intrinsic work motivation was negative and statistically significant, b = -0.13, p =.033, 95% CI [-0.25, -0.01], indicating that there is a moderating effect of meaningful work on the propensity to search for meaning in life and intrinsic work motivation relationship. Therefore, the main effects of propensity to search for meaning in life and meaningful work on intrinsic work motivation should be interpreted with caution.

The effects of propensity to search for meaning in life, meaningful work, and the interaction between the two on slope of intrinsic work motivation were nonsignificant (see Table

2), indicating that Hypothesis 1b, that propensity to search for meaning in life is positively associated with the rate of positive change (i.e., slope) of intrinsic work motivation over time (i.e., over the course of the first half of the school year), was not supported.

The direct effect of propensity to search for meaning in life on self-rated job performance was not significant, b = 0.11, p = .057, 95% CI [-0.01, 0.22], indicating that Hypothesis 2a, that propensity to search for meaning in life is positively associated with initial levels (i.e., intercept) of self-rated job performance (i.e., at the start of the school year), was not supported. Meaningful work was significantly related to self-rated job performance, b = 0.21, p = .003, 95% CI [0.07, 0.35], such that self-rated job performance was higher for teachers who reported higher levels of meaningful work (see Figure 3). The interaction between propensity to search for meaning in life and meaningful work in predicting self-rated job performance was not significant, b = 0.03, p =.712, 95% CI [-0.13, 0.19], suggesting that there is not a moderating effect of meaningful work on the propensity to search for meaning in life and self-rated job performance relationship.

The effects of propensity to search for meaning in life, meaningful work, and the interaction between the two on slope of self-rated job performance were nonsignificant (see Table 2), indicating that Hypothesis 2b, that propensity to search for meaning in life is positively associated with the rate of change (i.e., slope) of self-rated job performance over time (i.e., over the course of the first half of the school year), was not supported.

Figure 3





Note. Propensity to search for meaning in life modeled at one SD below the centered variable mean and one SD above the centered variable mean. Meaningful work modeled at one SD below the centered variable mean and one SD above the centered variable mean. The depicted lines control for age and tenure, and average estimates that reflect the sample averages were used.

Research Question 1 a asked how propensity to search for meaning relates to initial levels (i.e., intercept) of occupational turnover intentions (i.e., at the start of the school year). The direct effect of propensity to search for meaning in life on occupational turnover intentions was significant, b = 0.15, p = .002, 95% CI [0.05, 0.24], suggesting that propensity to search for meaning in life is positively associated with initial levels (i.e., intercept) of occupational turnover intentions (i.e., at the start of the school year). Meaningful work, however, was not significantly related to occupational turnover intentions, b = -0.10, p = .050, 95% CI [-0.21, 0.00]. The interaction between propensity to search for meaning in life and meaningful work in predicting occupational turnover intentions was positive and statistically significant, b = 0.12, p = .019, 95% CI [0.02, 0.22], indicating a moderating effect of meaningful work on the propensity to search for meaning in life and meaningful work on the propensity to search for meaning in life and meaningful work on occupational turnover intentions should be interpreted with caution.

Research Question 1b asked how propensity to search for meaning is related to the rate of change (i.e., slope) of occupational turnover intentions over time (i.e., over the course of the first half of the school year). As with intrinsic work motivation and self-rated job performance, the effects of propensity to search for meaning in life, meaningful work, and the interaction between the two on slope of occupational turnover intentions were nonsignificant (see Table 2), indicating that propensity to search for meaning in life is not associated with the rate of change (i.e., slope) of occupational turnover time (i.e., over the course of the first half of the school year).

	Intrinsic Motiva Interc	rinsic Work Intrinsic Iotivation Work Intercept Motivation		Self-Rat Perforn Inter	Self-Rated Job Performance Intercept		Self-Rated Job Performance		Occupational Turnover Intentions		Occupational Turnover Intentions	
Des l'eter	h	SE	b	$\frac{\nabla F}{\nabla F}$	h	SE	b	ve SE		SE		$\frac{pc}{SF}$
Predictor	D	SE	D	SL	D	SL	D	SL	D	SE	D	SL
Age	.089	.073	.121	.378	.113	.072	060	.110	.024	.068	.272	.171
Tenure	118	.074	.204	.553	004	.071	.142	.109	.020	.069	200	.205
Propensity to Search for Meaning in Life	.054	.059	046	.304	.110	.058	143	.095	.148**	.047	020	.138
Meaningful Work	.225***	.054	147	.366	.214**	.072	120	.105	103	.052	110	.148
Search for Meaning x Meaningful Work	133*	.062	.268	.584	.030	.082	.001	.114	.123*	.053	143	.184

Path Analytic Results for Propensity to Search for Meaning in Life and Meaningful Work on Outcomes

Note. Standardized loadings are reported. Search for Meaning = Propensity to Search for Meaning in Life. *p < .05, **p < .01, ***p

<.001.

To test Hypotheses 3-5, if a significant interaction effect was observed, the relationship between propensity to search for meaning and the outcome of interest was examined at meaningful levels of the moderator (i.e., meaningful work). Specifically, if a significant interaction effect of propensity to search for meaning in life and work meaningfulness was observed, bootstrapped confidence intervals were examined at one standard deviation above and one standard deviation below the mean of the centered meaningful work variable for the effect of propensity to search for meaning in life on each outcome. If the 95% confidence interval for one or more of the conditional effects does not contain zero, it would suggest that meaningful work moderates the relationship of interest.

As reported earlier, the interaction between propensity to search for meaning in life and meaningful work was not significant in predicting the intercept for self-rated job performance, indicating that Hypothesis 4a was not supported. The interactive effect was not significant for intrinsic work motivation, self-rated job performance, or occupational turnover intentions, indicating that Hypotheses 3b, 4b, and 5b, respectively, were not supported. However, the interaction between propensity to search for meaning in life and meaningful work was significant for the intercepts of intrinsic work motivation and occupational turnover intentions. Therefore, conditional effects of propensity to search for meaning in life will be examined for the intercepts of intrinsic work motivation (H_{3a}) and occupational turnover intentions (H_{5a}) at different levels of meaningful work.

As shown in Table 3, meaningful work moderated the relationships between propensity to search for meaning in life and the intercept of intrinsic work motivation and occupational turnover intentions. The conditional effect of propensity to search for meaning in life on intrinsic work motivation was positive and significant across low levels of meaningful work, b = 0.17, p =

48

.031, 95% CI [0.02, 0.34], but was nonsignificant at both mean levels of meaningful work, b = 0.06, p = .356, 95% CI [-0.06, 0.17], and high levels of meaningful work, b = -0.07, p = .416, 95% CI [-0.23, 0.10]. Though a significant moderating effect was observed, it was in the opposite direction of Hypothesis 3a, that the positive relationship between propensity to search for meaning in life and initial levels of intrinsic work motivation (i.e., intercept) is moderated by work meaningfulness such that the relationship is stronger at high levels of meaningful work. Findings suggest that the positive relationship between propensity to search for meaning in life and initial levels of intrinsic between propensity to search for meaning in life and intrinsic work motivation (i.e., intercept) is moderated by work meaningfulness such that the relationship between propensity to search for meaning in life and intrinsic work motivation is stronger at high levels of meaningful work.

Table 3

Conditional Effects of Propensity to Search for Meaning in Life at Low, Mean, and High Levels of Meaningful Work

		Intrinsic Work		Occupational		
		Motivation		Turnover I	ntentions	
		95%	6 CI	95% CI		
	Meaningful	Lower	Upper	Lower	Upper	
	Work Level	Limit	Limit	Limit	Limit	
Propensity to Search for Meaning in Life	Low	.016	.341	103	.176	
	Mean	059	.173	.052	.238	
	High	229	.097	.134	.380	

Note. Meaningful Work was -0.783 (1 SD below the mean) and 0.783 (1 SD above the mean) for the 95%

CI lower limit and upper limit, respectively.

Interpreting Figure 4, teachers with low meaningful work have lower intrinsic work motivation initially and over time than teachers with high meaningful work, regardless of propensity to search for meaning in life, illustrating the main effect of meaningful work (see Table 2). However, for teachers with low meaningful work, teachers who have high propensity to search for meaning in life have higher intrinsic work motivation initially and over time than teachers with low propensity to search for meaning in life, illustrating the interaction between meaningful work on the relationship between propensity to search for meaning in relation to intrinsic work motivation and the relative stability of this interaction effect over time.

Figure 4

Moderating Effect of Meaningful Work on Relationship Between Propensity to Search for Meaning in Life and Intrinsic Work



Motivation Over Time

Note. Propensity to search for meaning in life modeled at one SD below the centered variable mean and one SD above the centered variable mean. Meaningful work modeled at one SD below the centered variable mean and one SD above the centered variable mean. The depicted lines control for age and tenure, and average estimates that reflect the sample averages were used.

In contrast, as shown in Table 3, the conditional effect of propensity to search for meaning in life on occupational turnover intentions was nonsignificant across high, b = 0.04, p = .622, 95% CI [-0.10, 0.18], and was significant and positive at both mean levels of meaningful work, b = 0.15, p = .002, 95% CI [0.05, 0.24], and high levels of meaningful work, b = 0.26, p < .001, 95% CI [0.13, 0.38]. Again, the interaction effect was in the opposite direction of what was hypothesized in Hypothesis 5a, that the relationship between propensity to search for meaning in life and initial levels of occupational turnover intentions (i.e., intercept) is moderated by work meaningfulness such that the relationship will be more negative at high levels of meaningful work. Findings suggest that, to the contrary, the relationship was more positive going from moderate to high levels of meaningful work and was nonsignificant at low levels of meaningful work.

Interpreting Figure 5, teachers with high propensity to search for meaning in life have higher initial levels of occupational turnover intentions, at the start of the school year, than teachers with low propensity to search for meaning in life. However, the initial difference between occupational turnover intentions for teachers with high propensity to search for meaning and teachers with low propensity to search for meaning and low meaningful work does not differ greatly and becomes even more tenuous over time, suggesting that the main effect of propensity to search for meaning in life in relation to occupational turnover intentions should be interpreted with caution. Regarding the observed interaction between propensity to search for meaning in life and meaningful work, Figure 5 suggests that when meaningful work is high, teachers who have low propensity to search for meaning in life are much lower on occupational turnover intentions than teachers who are high in propensity to search for meaning in life.

Figure 5

Moderating Effect of Meaningful Work on Relationship Between Propensity to Search for Meaning in Life and Occupational Turnover

Intentions Over Time



Note. Propensity to search for meaning in life modeled at one SD below the centered variable mean and one SD above the centered variable mean. Meaningful work modeled at one SD below the centered variable mean and one SD above the centered variable mean. The depicted lines control for age and tenure, and average estimates that reflect the sample averages were used.

CHAPTER IV

DISCUSSION

Super's life-span, life-space theory was applied in the present study to better understand how meaning-making and meaningfulness relate to job and career outcomes in the face of challenging and uncertain circumstances in workers' life-spans (Super, 1980, 1990). During the COVID-19 pandemic, K-12 teachers' propensity to search for meaning in life and perceived meaning attributed to their work role (i.e., meaningful work) were examined in relation to teachers' intrinsic work motivation, self-rated job performance, and occupational turnover intentions. Findings suggest that, when facing the demands and uncertainty of the COVID-19 pandemic, teachers drew on their individual propensity to search for meaning in life and their perceived meaning associated with their work role for work and career motivation and decisionmaking. Propensity to search for meaning in life and meaningful work had interactive effects on intrinsic work motivation and occupational turnover intentions. Moreover, attributing higher perceived meaning to one's work role in the life-space was associated with better performance outcomes during challenging circumstances for teachers at the start of the school year and over time.

It was hypothesized that meaningful work directs the search for meaning process to elicit motivation during challenging times such that the relationship between search for meaning and intrinsic work motivation is stronger at higher levels of meaningful work. Contrary to expectations, findings suggest that when teachers perceive low, rather than high, meaning in their work, higher propensity to search for meaning relates to higher levels of intrinsic motivation at the start of the semester and over the course of the semester. This suggests that, during periods of uncertainty and high demands, teachers may not rely on non-work spheres in the life space as sources of meaning-making for motivation when meaningful work is low, instead leaning in to the prosocial nature of their profession for intrinsic motivation in their work role (Richardson & Watt, 2006; Serow, 1994). In this sample, even teachers who were relatively low on meaningful work tended to view their work as at least somewhat meaningful, suggesting even teachers with low meaning have some work meaningfulness to draw from. Therefore, teachers with relatively low meaningful work and high propensity to search for meaning appear to have viewed the COVID-19 pandemic as a call to action, inspiring increased work motivation. This is in line with research on career callings, which instill attributions of purpose and meaningfulness in the work role (Dik & Duffy, 2009; Elangovan et al., 2010). Callings research suggests that workers who view their work as a calling are more willing to perform above and beyond expectations during setbacks, despite unfavorable career outlooks and necessary sacrifices in their personal lives, compared to workers who find less meaning in work (Elangovan et al., 2010).

Regarding self-rated job performance, hypotheses regarding the desirable effects of propensity to search for meaning in life were not supported. Instead, findings indicate that meaningful work is a more important predictor of initial and sustained performance in periods of uncertainty. In the challenging and uncertain circumstances surrounding COVID-19, K-12 teachers who found their work to be more meaningful, performed better on average initially and over time in the face of those challenges than those who perceived less meaning in their work role. This underscores the importance of meaning ascribed to the work role in influencing work role performance. These findings support propositions that, despite certain work roles having socially prescribed meaningfulness, it is workers' subjective attributions of meaningfulness that guides behavior (Elangovan et al., 2010; Pratt & Ashforth, 2003; Serow, 1994). Findings regarding job performance also lend support to Super's (1980, 1990) theoretical proposition that

work role salience influences worker participation, sentiments of being invested in their work, and expectations related to achieving goals in that role (Hartung, 2013).

Finally, meaningful work did not direct the propensity to search for meaning, leading to lower occupational turnover intentions as hypothesized. Instead, for teachers with high meaningful work, those who had a lower propensity to search for meaning in life during challenging circumstances were less likely to consider retiring or seeking work in another profession in the near future (i.e., occupational turnover intentions) than those who had a high propensity to search for meaning, an effect that held steady over time. This important finding suggests that teachers with high meaningful work and high propensity to search for meaning may have been frustrated by difficulty in implementing their self-concept at work at the height of the COVID-19 pandemic (Hartung, 2013; Savickas, 2011). Though it was hypothesized that workers who are high in propensity to search for meaning and low in work meaningfulness would experience this desire to reduce this self-concept discrepancy, findings suggest it is those with high meaningfulness whose decision-making is affected by propensity to search for meaning. This may be because teachers who are highly motivated by the meaning they attribute to their work role feel particularly frustrated by the scarce resources, heightened demands, and institutional and societal obstacles ushered in by the COVID-19 pandemic. These obstacles all hinder the ability of teachers who find a great deal of meaning in their work to achieve the prosocial goals they can typically fulfill through their work. This explanation suggests that it is likely that those who have perceptions of high meaningful work and high propensity to search for meaning in periods of challenge and uncertainty are more likely to consider other avenues of employment or retirement that will allow them to fulfil their work-related values and aspirations.

In contrast, during periods of uncertainty and uncharacteristic demands in the work role, teachers who find high meaning in their work and have a low propensity to search for meaning in life were found to have lower occupational turnover intentions at the start of the school year and over time than those with high propensity to search for meaning in life. This finding suggests that workers with high meaningful work and low propensity to search for meaning during difficult circumstances are not poised to consider meaningfulness of roles in the life-space in reaction to the challenges they are facing or seek other roles where they may be able to better fulfill their meaning-related goals, values, and aspirations. They double down on their desire to remain in their profession rather than considering leaving. This, again, aligns with the literature on career callings that suggests workers pursuing callings are more likely than others to escalate their commitment to achieve positive work-related outcomes without question in the face of setbacks and negative career outlooks (Elangovan et al., 2010).

Theoretical Implications

The findings of this study differed largely from what was hypothesized, wherein meaningful work was expected to guide teachers' search for meaning during challenging circumstances towards more desirable career outcomes. Findings suggest that the role of meaningfulness and search for meaning in individuals' careers is more complex than anticipated, emphasizing the importance of the contributions of these findings to our understanding of the roles meaning and search for meaning in the life-space play during challenging circumstances in the life-span. This study offers several key theoretical contributions to the literature.

First and foremost, these findings provide a deeper understanding of the role of meaning in the life-space and meaning-making across the life-span in influencing career pathways. This study was an empirical test of propositions in Super's life-span, life-space approach to career development that challenging circumstances in the life-span can trigger evaluations and promote career-related decision-making behavior, with meaning-making playing a central role in the process (Super et al., 1996; Super & Knasel, 1981). Findings support Super's theory to be a valid lens from which workers' career experiences and meaning-making and reactions to those experiences over time in the life-span can be better understood. Both meaningfulness attributed to the work role and workers' individual propensities to search for meaning in challenging circumstances were supported as playing important roles in relation to career motivation, behavior, and decision-making. This research answered calls to empirically examine the role of meaningful work in tandem with meaning in the broader life domain and the influence of meaningfulness in life on work outcomes (Allan et al., 2019; Ward & King, 2017). In addition, the present study answers calls to apply Super's life-span, life-space theory to examine careerrelevant outcomes in the context of adult stages in the life-span (A. Cohen, 1991; Hartung, 2013; Hom et al., 2010). This research supports Super's theory as having implications for important career and job outcomes for workers throughout the life-span, particularly as they face considerable challenges in the life-span and life-space.

Next, the findings support the characterization and examination of propensity to search for meaning in life as an individual difference in the context of careers and the work role, in line with Steger's work suggesting propensity to search for meaning in life is important to examine in the broader life-space (e.g., Steger et al., 2006, 2008). Furthermore, findings regarding the importance of propensity to search for meaning at high levels of meaningful work lend support to propositions that search for meaning does not only manifest when there is a lack of meaning (Steger et al., 2006). This research also answers calls to examine propensity to search for meaning in the face of uncertain and challenging circumstances (Steger et al., 2006). Findings indicate that propensity to search for meaning in life and meaningful work are important to examine as predictors of career-related motivation, behavior, and decision-making during challenging and uncertain events in the life-span. Taken together, findings positioning propensity to search for meaning in life as an individual difference influencing career-related motivation and behavior answer calls to better integrate existentialist search for significance, meaning, and purpose into Super's (1980) life-span, life-space approach (Sterner, 2012).

Finally, there has been a lack of research on dispositional styles of coping with stressful situations, which are considered potential contributors to the meaning making process (Park & Folkman, 1997). The present study provides understanding surrounding the effects of dispositional coping in finding that propensity to search for meaning in life when facing challenging circumstances interacts with meaningful work in predicting intrinsic work motivation and occupational turnover intentions during stressful situations. This suggests that propensity to search for meaning in life may play an important role as a dispositional coping mechanism. Findings also suggest that meaning, as one of the primary motivations in life, does indeed play a role in motivating and sustaining coping during stressful events in workers' careers over time (Folkman & Moskowitz, 2007; Frankl, 1964; Pratt & Ashforth, 2003).

Practical Implications

Turnover in teaching is a global post-COVID concern (Morrison, 2021), and this research sheds light on some of the reasons underlying teachers' decisions to leave teaching, highlighting avenues in which this understanding might be implemented to bring about meaningful change. The current study provides insight into how meaning-making affects career-related outcomes during periods of significant shared strain and uncertainty, such as the COVID-19 pandemic. It suggests that even those whose work has a high degree of societally prescribed meaning, like teachers (Serow, 1994), may encounter decreased performance, hampered intrinsic work motivation, and an increased desire to switch careers or retire as a result of these circumstances. The results of this study indicate that in order to encourage better work and career outcomes, professional networks, organizations, and must appeal to workers' unique values in the lifespace.

Despite the paucity of research examining the impact of family on the meaning of one's work, it stands to reason that meaning in work and family roles have a reciprocal relationship in which meaning in one role shapes meaning in the other (Brief & Nord, 1990; Rosso et al., 2010). Family roles can be demanding and rewarding, leading workers to derive meaningfulness in that role and focus more on the economic value of work. Family can also enhance the meaningfulness of work by providing a reprieve. To tap into this meaningfulness, organizations and leaders can offer family policies and flexible work arrangements with consideration for individual workers' boundary management preferences in the life-space, their family and career stages in the lifespan, and the unique demands of their various roles in life (Beigi et al., 2018), particularly during challenging and uncertain times. Such an approach would augment the meaningfulness workers perceive in their work while contributing to workers' capacity to perform in their various roles in life, including the work role. In line with this, ability to balance career and quality of life concerns has been identified as an important factor in teachers' motivation to pursue their profession (Richardson & Watt, 2006). To fill values associated with the role of community member and volunteer, opportunities such as work time devoted to community volunteering, can be offered as well. If work supports multiple roles, workers' search for meaning in challenging times is likely to encourage them to draw on the work role for meaning, leading to higher

intrinsic work motivation and self-rated job performance and decreased likelihood of occupational and organizational turnover.

Importantly, this study suggests that meaningful work and propensity to search for meaning are important motivational factors across the life-spans of workers that organizations should consider, particularly during challenging and uncertain periods of time. Findings support the idea that meaning is subjective, not dependent on the prosocial nature of one's role, suggesting that meaningful work can be inspired in a variety of professions. Similarly, meaningful work cannot be assumed for workers in professions such as nursing and teaching. Therefore, professional communities, organizations, and leaders seeking strategies to retain top talent and encourage sustained motivation and performance in their workforces over time should consider ways to emphasize the prosocial impacts of workers' roles and behaviors. This would help those who find little meaning in their work develop perceptions of meaningful work and increase the likelihood that those who find high meaning in work will sustain their perceptions of meaningful work in their search for meaning in life.

Similarly, professional communities, organizations, and leaders should aim to ensure that those who find high meaning in their work are able to fulfill their work-related goals and aspirations, so they do not search for meaning elsewhere. For K-12 teachers, opportunities for positive learning experiences and potential to influence the quality of life for others, particularly children and adolescents are highly motivating and meaningful (Richardson & Watt, 2006; Serow, 1994). Therefore, resources that make such aspirations attainable should be identified and allocated. During COVID-19, there were considerable barriers to providing an education for children that could dissuade teachers from working in a profession societally understood to have many demands and few rewards (Richardson & Watt, 2006). In such circumstances, every effort should be made on the part of employing organizations and leaders to eliminate barriers where possible and provide resources to facilitate workers' abilities to best fulfill their meaning-related goals and values.

Finally, leaders can make individualized efforts to emphasize the unique contributions workers make to the achievement of broader organizational goals and values. Purpose, through finding significance and fulfilling values; authenticity, through identity affirmation and personal integration; belongingness, through social identification and interpersonal connectedness are all important contributors to meaningful work that should be fostered for workers (Rosso et al., 2010). This research suggests that propensity to search for meaning in life and meaningful work play key roles in influencing motivation, performance, and retention in periods of challenge and uncertainty. However, organizations and leaders are often unaware of unique challenges and changes workers' experience in the life-span and life-space (e.g., spouse getting laid off, chronic personal or family illness). As workers can encounter challenging events at any point in their careers and lives, it is important to consistently foster a sense of purpose and meaningfulness in the work role to provide a source of coping and motivation during uncertain and challenging times.

Limitations and Future Research Directions

One limitation of the present study is that there were few teachers who identified as men and teachers of non-White racial and ethnic groups who participated, limiting the potential to examine whether these findings generalize to teachers who are men or non-White. It is important to note that K-12 teaching in the United States is dominated by women at both the primary (89% women) and secondary (64% women) levels, and 84% of K-12 educators identify as White, suggesting the sample is somewhat representative of the population (National Center for Education Statistics, 2022). However, it remains important to conduct future research to determine whether propensity to search for meaning in life and meaningful work differentially relate to outcomes for men and women during uncertain times. This is particularly important to examine in light of evidence that men, especially those in heterosexual dual-earner relationships, often prioritize work differently and hold a smaller share of household responsibilities when compared to women (Shockley et al., 2021). Moreover, it is important to examine whether the effects observed in this study differ for teachers of different racial or ethnic groups, such as those who identify as Black or Hispanic. Similarly, as the present study was limited to the United States, future research should examine whether these effects generalize to the experiences of teachers in other countries with varying levels of support for work and family needs during times of uncertainty and potentially differing priorities when it comes to work and family.

Another limitation is that these effects were observed during the unique context of the COVID-19 pandemic, an event that is unprecedented in its intensity and scope of impact. Future research should be conducted to examine whether the effects of propensity to search for meaning and meaningful work generalize to other times of crisis, including those that occur at the withinperson level. As the sample in the present study only included those in the teaching profession, which has a high degree of inherent prosocial societal meaning (Serow, 1994), future research should be conducted to examine how propensity to search for meaning in life and meaningful work influence work outcomes for those in other occupations during times of crisis, uncertainty, and high demands. For example, future research could examine these effects in healthcare professionals and service workers during similar large-scale health crises, realtors during periods of economic recession, and people in the armed forces during wartime. Similarly, the effects of propensity to search for meaning in life and meaning in life and meaning in life and meaning in the armed forces during wartime.

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individuals in a variety of occupations experiencing similar events in the life-span that induce increased uncertainty and high demands across the life-space, such as personal loss, health concerns, and economic setbacks.

Next, as meaningful work was examined in this study without examining meaning ascribed to other roles in the life-space, such as spouse or caregiver, future studies should be conducted to examine how propensity to search for meaning in life influences work outcomes during periods of crises for those who find roles outside of the work role to be highly meaningful and the possibility of reciprocal relationships between meaningful work and meaning in other life domains (Brief & Nord, 1990; Rosso et al., 2010). Other research could, for example, examine whether congruence and discrepancy between meaningful work and meaning attributed to other domains influences career and work outcomes during times of uncertainty. Another limitation of this study is that meaningful work was only measured at one timepoint in the present study, prior to the start of the school year. Though meaningful work is expected to be relatively stable over time, future research should seek to determine whether propensity to search for meaning in life leads to shifts in perceived meaningful work during challenging circumstances.

This study demonstrates the importance of meaning in the context of Super's life-span, life-space theory during times of uncertainty, and a key aim of future meaningfulness research should be to further this understanding. Future research should be conducted to determine whether findings regarding occupational turnover intentions can be applied to understand other potential events in the life-span. For example, in the early years of childrearing, research could examine whether meaningfulness in work and propensity to search for meaning in life influence decisions of whether to remain in or leave one's profession or to switch from full-time to parttime work. Further, research should examine the role of propensity to search for meaning in life in the various developmental stages described in Super's theory and whether propensity to search for meaning in life changes over the course of people's life-spans (Super, 1980). For example, propensity to search for meaning in life could relate to career motivation, learning, and retention at early stages of career development depending on the degree to which people perceive that the career they are pursuing has the potential to contribute to their future sense of meaningful work and meaning in other life roles.

Finally, other outcomes in the life-space should be examined in relation to meaningseeking and meaning-making in periods of challenge and uncertainty. For example, as self-rated job performance reflected teachers' perceptions of how leadership would rate their performance in this study, future research could examine workers' direct perceptions of their own performance and supervisor ratings of workers' performance as outcomes to understand whether meaning-making influences those differently. Other examples are, subjective and objective career satisfaction, life satisfaction, retirement age, career shifts, entrepreneurship, professional development seeking, and participation in professional development activities. It is important to understand whether meaning-seeking and meaning-making lead to a more enriching career and life, in addition to their beneficial impacts on immediate job outcomes. Teachers with high perceived meaning in work and high propensity to search for meaning in challenging circumstances may be more likely to seek other professions or retire. However, those teachers may ultimately go on to have more enriching and satisfying life outcomes than teachers who find meaning in their profession and close themselves off to the consideration of shifting their energy to pursue other professions and devote time to other roles in the life-space in which they could potentially better fulfill their meaning-related goals, values, and aspirations.

CHAPTER V

CONCLUSION

Applying Super's life-span, life-space theory (Super, 1957, 1980, 1990), the interplay between K-12 teachers' propensity to search for meaning in life and perceived meaningful work during uncertain and challenging circumstances in predicting career development outcomes at the start of the school year and over the course of a semester was examined. Meaningful work was positively associated with self-rated job performance and intrinsic work motivation. Furthermore, interactive effects between propensity to search for meaning in life and meaningful work were supported for intrinsic work motivation and occupational turnover intentions. These findings highlight the importance of considering workers' propensity to search for meaning in life and meaning attributed to the work role in the life-space as important factors to consider in relation to work motivation, behavior, and decision-making during periods of uncharacteristic demands and uncertainty in the life-span.

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APPENDIX A

Variable	Skewness	Skewness SE	Kurtosis	Kurtosis SE
Propensity to Search for Meaning (Q)	-0.80	.08	0.97	.20
Meaningful Work (Q)	-1.72	.10	3.72	.20
Age (Q)	-0.02	.10	-0.76	.20
Occupational Tenure (Q)	0.33	.10	-0.12	.20
Intrinsic Work Motivation (T1)	-0.03	.14	-0.32	.27
Self-Rated Job Performance (T1)	-0.42	.14	0.67	.27
Occupational Turnover Intentions (T1)	0.70	.14	-0.75	.27
Intrinsic Work Motivation (T2)	-0.17	.15	-0.84	.30
Self-Rated Job Performance (T2)	-0.51	.15	0.21	.29
Occupational Turnover Intentions (T2)	0.94	.15	-0.22	.29
Intrinsic Work Motivation (T3)	-0.33	.14	-0.68	.29
Self-Rated Job Performance (T3)	-0.63	.14	0.77	.28
Occupational Turnover Intentions (T3)	0.96	.14	-0.13	.28
Intrinsic Work Motivation (T4)	-0.42	.15	-0.50	.30
Self-Rated Job Performance (T4)	-0.37	.15	-0.43	.30
Occupational Turnover Intentions (T4)	0.87	.15	-0.43	.30
Intrinsic Work Motivation (T5)	-0.42	.15	-0.50	.30
Self-Rated Job Performance (T5)	-0.49	.15	0.51	.29
Occupational Turnover Intentions (T5)	0.97	.15	-0.24	.29
Intrinsic Work Motivation (T6)	-0.27	.15	-0.78	.30
Self-Rated Job Performance (T6)	-0.33	.15	-0.05	.30
Occupational Turnover Intentions (T6)	1.01	.15	-0.09	.30
Intrinsic Work Motivation (T7)	-0.43	.16	-0.42	.32
Self-Rated Job Performance (T7)	-0.37	.16	0.42	.32
Occupational Turnover Intentions (T7)	1.02	.16	-0.30	.32
Intrinsic Work Motivation (T8)	-0.34	.22	-0.50	.43
Self-Rated Job Performance (T8)	-0.73	.22	1.00	.43
Occupational Turnover Intentions (T8)	0.76	.22	-0.94	.43

SKEWNESS AND KURTOSIS OF ALL STUDY VARIABLES

Note. Q = Assessed in the qualification survey; T = Time. * p < .05, ** p < .01.

APPENDIX B



Q-Q PLOTS FOR ALL STUDY OUTCOMES

A) Normal Q-Q Plot for Intrinsic Work Motivation Times 1-8, Consecutively Depicted, With Expected Normal Value Modeled on Y-Axis (scale: -3 to 3) and Predicted Value Modeled on X-Axis (scale: -3 to 3)



B) Normal Q-Q Plot for Self-Rated Job Performance Times 1-8, Consecutively Depicted, With Expected Normal Value Modeled on Y-Axis (scale: -3 to 3) and Predicted Value Modeled on X-Axis (scale: -3 to 3)



C) Normal Q-Q Plot for Occupational Turnover Intentions Times 1-8, Consecutively Depicted, With Expected Normal Value Modeled on Y-Axis (scale: -3 to 3) and Predicted Value Modeled on X-Axis (scale: -3 to 3)

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