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EXPLORING THE ROLE OF LEADERSHIP IN TEACHER DEVELOPMENT ACCORDING TO CAREER STAGE

A DISSERTATION APPROVED FOR THE
EDUCATIONAL LEADERSHIP AND POLICY STUDIES DEPARTMENT

BY THE COMMITTEE CONSISTING OF

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DEDICATION

I dedicate this dissertation product to my family and close friends who have supported me over the course of this eight-year journey. My husband Adam has encouraged and motivated my continued work through dialoguing with me about my research, providing consistent positive praise, solo parenting our child while I hunkered down, date nights when able, etc. Also, to my almost five-year-old daughter Roxanne, who has only known her Momma to be both working full-time and in school throughout her short life, and is convinced that my job is to "write stuff a lot." Each of my housemates, Adam, Roxi, even our dogs – Sako, Asher, Maggie, and Scout – have been patient and steadfast in allowing me to devote the time and attention necessary for research and writing, and I am ever grateful for their support.

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ABSTRACT

The aim of this dissertation is to explore, through the lens of self-determination theory, teacher experiences with leadership support through the various career stages – novice, competent, and expert. While existing literature has addressed teacher expertise and growth, as well as leadership for teacher learning, there is little evidence about the ways in which leadership should support educators differentiated by varied career stage of development. The study's purpose is to understand, based on teacher career stages, a) how teachers' psychological needs are or are not met, b) how experiences with leadership have aided in their growth, and c) whether and how expert teachers recognize leadership's role in their growth.

A mixed methods study was conducted with survey and interview data gathered from 94 teachers and 12 administrators in a Midwestern school district. The questions included in the surveys served to differentiate teachers according to career stage (novice, competent, expert), and to determine perceptions of support for their psychological needs (competence, autonomy, relatedness) at work and leadership's support of those needs. Interview questions targeted expert teachers alone and asked them to reflect on the course of each career stage regarding support from their leaders with respect to their psychological needs. Competence was mentioned as a best met need at work across all stages, and relatedness was the most provided for need from leadership. Experts indicated direct support of autonomy and relatedness to be of importance. Results suggest that K-12 schools should consider the following: low autonomy support provision for novice teachers, high autonomy needs support during the mid-career years, and high relatedness support for expert teachers.

CHAPTER ONE:

INTRODUCTION

Preparing society's children to become productive and responsible citizens of the world is an undertaking of great consequence, as they require substantial support throughout their educational careers. Teachers, as the single largest school-related influence on student learning (Hattie, 2003), also have substantial learning needs themselves in fulfilling this role. In addition to the direct influence of teachers on student success, principals have also been found to play a significant, although indirect, role in student learning (Hallinger & Heck, 1996). While a vast amount of research exists in both the teacher development and the school leadership domains, a review of literature reveals significantly less research into the intersection between the two—the relationship between leadership and teacher growth and development (Ford & Ware, 2018).

There is a large body of research on how teachers learn, as well as specific literature on what constitutes an expert in the teaching field (Berliner, 1986, 1995; Dunn & Shriner, 1999; Elliot, 2009; Glaser, 1987, 1990; Kose & Lim, 2011; Ryan, 2006; Smith & Strahan, 2004; Welker, 1991; William, 2014). Investigation of what constitutes educational expertise has persisted since its emergence over 30 years ago. Seminal research in the field asserts multiple criteria as specifications of a teacher expert; yet, the main defining characteristic of teacher expertise research is, of course, time. Duration of time teaching should be the foundational component for being considered an expert, with other conditions for teacher growth and development regarded as secondary to achieving requisite time in the field. Further contributing factors to expertise according to career stage have included time spent in a specific domain or role, peer and/or supervisory recognition of expertise, and an educator's ability to reach a diverse group of students, to name a few.

Additionally, scholars have examined the leader's role in creating conditions conducive to teacher expertise development (Eyal & Roth, 2011; Ford et al., 2019; Ford & Ware, 2018; Geijsel et al., 2004; Marks & Printy, 2003; Printy, 2008; Tschannen-Moran, 2009). These studies emphasize the role of school leaders in affecting teachers' motivation, well-being, or professional practice (Blase & Blase, 1999; Eyal & Roth, 2011; Printy, 2008). Repeated themes have emerged in this literature with respect to setting up structures to ensure a positive organizational climate. Although many other factors are relevant in supporting teacher learning, the work environment is the foundation upon which all other aspects are built and has immense power in either helping or hindering improvement, no matter the teacher's own motivation for growth. The role of the principal is vital, not in bearing the sole responsibility to inspire their employees, but in structuring a supportive climate so teachers may flourish (Ford & Ware, 2018).

Teacher career staging has also been studied, along with various professional needs of teachers at each of those different stages (Appova, 2009; Cameron et al., 2013; Derrington & Brandon, 2019; Flores, 2005; Grangeat & Gray, 2007; Patrick et al., 2010; Richter et al., 2011). Studies of early career teachers, for example, have been most prevalent in the literature. A specific focus on early career teachers in the existing literature is likely due to wanting to understand the factors contributing to high turnover rates in the first few years of teaching. In fact, beginning teachers are going through what is considered the most complex teacher learning phase as they navigate their new career path (OECD, 2005). Much of the literature surrounding novice teachers includes studies on mentoring and establishing relationships to retain teachers in the field (Fantilli &McDougall, 2009; Watzke, 2006). Although equally important, other career stages have not received equal attention in the literature.

These studies acknowledge that the needs of a young teachers are fundamentally different from those of a teacher with many years of documented effectiveness in the classroom. It is reasonable to believe that leaders who are cognizant of these differences are in a better position to organize professional learning that enables all teachers to progress in their expertise. Provision of support for multiple teachers in varied career stages might be structured quite differently, even when those teachers are located within the same school.

Statement of Problem

While it may be more efficient from a leadership perspective, it is likely a disservice to teacher development, and thus student learning, for each educator no matter their experience or performance, to be treated the same when it comes to addressing their needs for learning and development. Rather than lumping together without consideration for differentiation by developmental needs, principals should be viewing teachers as individuals with varying and distinct needs in order to tailor leadership support. Although studies on teacher expertise and instructional leadership have contributed substantially to the study of teacher support and development, a more explicit examination of the precise ways leaders can support professional growth aligned with a teacher's level of expertise is needed (Fink & Markholt, 2011; Derrington & Brandon, 2019). While it is understood teachers' needs change as they progress in their careers, there is something to be said for *how* leadership should support educators, based on career stage, so that they can facilitate their career evolution. For instance, beginning stage teachers may require very specific direction in terms of professional development and mentorship, while veteran teachers may benefit from fewer supports in those domains and more allowance from leadership for creativity in their teaching. Similarly, educators beyond their first few years likely need some adjustments to the high level of specific supports first year teachers

require. Extant evidence is limited in this area, necessitating a unique look into the ways in which leaders foster teacher growth in different phases of teacher development.

Study Purpose

Thus, the aim of this study was to explore, through the lens of self-determination theory (SDT), teacher experiences with leadership support through the various career stages – novice, competent, and expert. This broad purpose was addressed in two specific ways: 1) by advancing theory on leadership for career-staged teacher learning and development through the lens of self-determination theory; and 2) to empirically investigate, through eliciting the perspectives of current novice, competent, and expert teachers, how their experiences with school leadership have fostered their growth and development. More specifically, the research questions were:

1. Using the lens of self-determination theory, how well do teachers at varied career stages feel their psychological needs are being met at work?
2. In the opinion of novice, competent, and expert teachers, how have their experiences with leadership shaped their growth and development in the field?
3. In what ways, and to what degree, do identified expert-level teachers recognize the role of leadership in their growth to this exemplary career stage?

Study Contributions

First and foremost, it is hoped that this study will bring about renewed focus in the literature to the importance of support and development of teachers with respect to career stage. Similarly, due to costs and other factors, it is hoped this research can help inform changes to district practices which do not typically give much consideration to support and development opportunities differentiated by career stage. Currently, most districts provide a specific selection of professional development opportunities for all new teachers and then allow some freedom of

choice beyond those requirements. Furthermore, evaluation and feedback for teachers at all levels in many districts are standardized based upon their role in the district rather than differentiated for their experience, skill, or expertise. As previously stated, teachers may very well benefit from individualized leadership support tailored to their needs in order to evolve and grow in the field of education. Principals' ability to individualize supports based on research findings may improve relationships with teachers, as well as reduce wasteful time spent on supports which have minimal or uneven impact for teachers. Ultimately, such actions will positively affect teacher retention as teachers grow and develop from supports specifically designed or chosen with their level of expertise in mind.

CHAPTER TWO:

REVIEW OF LITERATURE

The two primary areas for examination in this chapter include school leadership and teacher expertise, both of which contain multiple conceptual models pertinent to this review. The first section, school leadership, will detail the four main leadership theories/frameworks: instructional leadership (Hallinger & Murphy, 1985), transformational leadership (Burns, 1978), shared instructional leadership (Marks & Printy, 2003), and finally, leadership for teacher learning (Geijsel et al., 2009). The common underlying themes in each leadership style include direct mentions of, or indirect relationships to, principal support for autonomy, competence, and relatedness. Teacher expertise, the second section of the literature review, will expound on the four following conceptual models: the developmental model (Berliner, 1994), knowledge and skills (Shulman, 1986), the cognitive perspective (Sternberg & Horvath, 1995), and lastly, social membership and recognition (Palmer et al., 2005). Finally, based on these reviews, I propose an integrated model of teacher expertise, synthesizing the aforementioned expertise frameworks in order to paint a more holistic picture of teacher career staging for the purposes of this study.

School Leadership

The structure of educational institutions, particularly with respect to leadership, plays a pivotal role in a teacher's ability to adequately and effectively educate students (Eyal & Roth, 2011; Niemiec & Ryan, 2009; Pelletier & Sharp, 2009). A significant portion of research has found teaching to be the number one correlate to student achievement, and leadership to be the second highest correlate (Leithwood et al., 2004). Thus, while teachers doing the work matter most in the context of successful educational organizations, competent leadership must also be in place for teachers and students to thrive. Resnick and Glennan (2002) take this claim a bit further

with their concept of reciprocal accountability, in which they assert if teachers are to be held accountable for an act (such as effective teaching), leadership has the same level of responsibility to make certain those teachers are adequately equipped with the knowledge and skills required to be successful.

A significant amount of research has been conducted with respect to school leadership and its relationship to teacher growth (Bass, 1985; Dinham, 2007; Hallinger & Murphy, 1985; King, F., 2007; King, M. B., 2004; Marks & Printy, 2003; Printy, 2008). Specific attention to this area of educational research occurred over thirty years ago when Hallinger and Murphy (1985) first developed their conceptual model of instructional leadership. Although a large body of leadership support research exists, only a few components will be discussed in this review of literature due to their contributions to the field and prominent use in educational research. In particular, the review will include a focus on instructional leadership, transformational leadership, shared instructional leadership, and leadership for teacher learning.

Instructional Leadership

Hallinger and Murphy's (1985) model of instructional leadership has received a great deal of attention in educational literature. Several additional conceptual models have been created based on this seminal piece of research, such as Hallinger and Heck (1996), Murphy (1988), and Shepperd (1996). Their initial model was three-dimensional and included a broad/indirect leadership approach (defining the school mission), a focus on pedagogy (managing the instructional climate), and promoting social learning communities (development of a positive organizational learning climate). Each of these three dimensions contain subordinate descriptors to further explain the leader's role in the successful enactment of instructional leadership components.

Within the dimension of indirect/broad leadership functions, defining the school mission reflects an essential responsibility of leaders. Hallinger and Murphy (1985) describe this element in terms of two subordinate categories: framing the school goals and communicating school goals. They make claims for the importance of limiting the number of goals on which staff can focus and leaders can mobilize resources for, rather than setting too broad or too many expectations for school improvement. Additionally, the authors advocate for the periodic review of goals with the entire staff regarding decisions in instruction, curriculum, and financial/budgetary issues. When leaders adhere to the principles, it can help to establish and maintain a collective vision and purpose for the school and its activities (Hallinger & Heck, 1997; Smith & Andrews, 1989).

Managing the instructional program is the second dimension of this instructional leadership model. If implemented in isolation, this particular approach is considered a direct/narrow view of the principal purpose. Although it is a vital function of an instructional leader, it is only one of *multiple* roles necessary for effective leadership. Included as a subcategory of this domain are the following: supervising and evaluating instruction, coordinating curriculum, and monitoring student progress (Hallinger & Murphy, 1985). While many of these tasks might now fall under the purview of an instructional coach or curriculum resource instructor in the schools, they are considered fundamental to principal leadership. The specific duties in this category include providing instructional support through observation for the purposes of both supervision and evaluation, aligning curricular standards horizontally and vertically in collaboration with teachers, and analyzing results of student assessments to assess curriculum and instruction.

The third dimension of Hallinger and Murphy's (1985) instructional leadership model is promoting a positive school learning climate. This responsibility is closely associated with communities of practice research (Printy, 2008) as well as transformational leadership (Bass, 1985) in that they each pertain to the development and configuration of a distinct organizational culture. Under this dimension are six subcategories, describing prerequisites for success in this area: protecting instructional time, promoting professional development, maintaining high visibility, developing and enforcing academic standards, provision of incentives to teachers, and provision of incentives to students.

Protecting instructional time encompasses providing periods for uninterrupted curricular instruction so students can benefit from learning. Promoting professional development includes not only communicating appropriate learning opportunities and leading training activities, but also participating in sense-making with educators in order to integrate the newly learned skills into practice. Maintaining high visibility increases interactions between the principal and students and staff, and affords the principal the means in which to reiterate the mission and goals to teachers. Developing and enforcing academic standards pertains to setting high expectations for students so that they can maintain a competitive advantage in mastered learning. The last two components of promoting a positive climate involve the provision of incentives to teachers and students. Both educators and learners need recognition of their efforts and achievements in order to reinforce their motivation to persevere, particularly in high needs schools (Hallinger & Murphy, 1985). This final dimension, promoting a positive learning climate, may be viewed as a foundational component for effective leadership, a necessity for successful enactment of the other leadership dimensions mentioned in this model.

Transformational Leadership

Transformational leadership was a concept first described by James Burns (1978) in his research on political leaders. Modifications have since been advanced (Bass, 1985) in order to further refine the concept of transformational leadership. In Burns' original theorization, he posited two distinct types of leadership: transactional (one of management), and transformational, one of motivating followers toward change. In transactional leadership, leaders maintain the status quo by way of simply managing employees (Bass & Avolio, 1993). Conversely, transformational leaders aim to inspire followers to work harder and move beyond their own personal expectations. In Bass' extensions of Burns' (1978) original work, both independently and in partnership with other researchers, he found successful leaders often display qualities of both types of leadership, rather than exclusively one. According to Bass and Avolio (1993), transformational leaders "...facilitate and teach followers… foster a culture of creative change… take personal responsibility for the development of their followers" (p. 113). They further assert that transformational leadership is composed of four qualities, as is frequently now deemed the "Four I's": idealized influence, inspirational motivation, individual consideration, and intellectual stimulation. Idealized influence refers to being a role model for employees, and one who can be trusted by those working for them. Inspirational motivation includes leaders who help to motivate employees toward the organizational vision. Individual consideration refers to leaders who assist employees in meeting their goals through coaching. Lastly, intellectual stimulation is encouraging creativity by way of challenging the status quo and promoting critical thinking skills. Within the school context, however, transformational leadership has more recently been viewed through the lens of the following four dimensions: setting direction, developing people, redesigning the organization, and managing the

instructional program (Leithwood, Day, Sammons, Hopkins, & Harris, 2006). These four domains consist of 14 different leadership behaviors, and were generated from a review of over 40 published studies, as well as nearly 140 unpublished studies, over a period of 15 years.

The first domain of transformational leadership, setting direction, is most closely associated with one of Hallinger and Murphy's (1985) components of instructional leadership: defining the school mission. More specifically, this dimension includes three practices (or behaviors), rooted in the theory of human motivation (Bandura, 1986). The bulk of the behaviors in this category are meant to facilitate and support collective and individual motivation of the staff for improving the school's mission (Leithwood et al., 2006). Building a shared vision is the first practice and is often deemed a foundational and core component of a successful organization. The second piece, fostering the acceptance of shared goals, essentially describes the process of working as a team to develop objectives in order to fulfill the long-term goal—the development of school vision. This element helps to bring about better alignment between teacher values and goals and the values and goals of the organization. High performance expectations is the third practice in this category, which ensures leaders hold certain expectations of the staff with respect to the two previously described components.

Leithwood et al. (2006) describe the second domain, developing people, as comprised of three sets of practices. This part of the model, much like the previous, also involves motivating members of the organization. It explicitly focuses on increasing the efficacy of staff through building individual and collective capacity. The first behavior, providing individualized support/consideration, has received a wide variety of attention in leadership research, both inside and outside the school realms (Bass & Avolio, 1993; Hallinger, 2003; Waters et al., 2003). Intellectual stimulation, the second practice, includes the leader's role in encouraging innovation

and growth in staff members' practices, which requires an environment allowing for such risks. The third and final piece of this domain is providing an appropriate model, which simply refers to leading by example.

Redesigning the organization is the third domain in the Leithwood et al. (2006) model of transformational leadership. Many of the leadership behaviors mentioned in the two prior domains can help to facilitate successful schools, but *only* if the organizational climate allows. There are four specific practices to this category: building collaborative cultures, restructuring, building productive relationships with families and communities, and connecting the school to its wider environment. The first two focus on developing positive relationships with internal stakeholders of the school, while the second two involve community relations with external stakeholders, including the political aspects of schooling.

The first two practices in this final category, managing the instructional program, staffing the program and providing instructional (teaching and learning) support, ensure schools have teachers in place and are provided with adequate curricular support. Monitoring school activity, the third behavior, includes actions such as data-based decision making based on student progress. The final practice, buffering staff from distractions in their work, includes protecting teachers' time and interests from various parties such as parents, media, and the government. It should be noted this final domain was only recently added to the transformational leadership framework as part of the review of literature by Leithwood and his colleagues (2006). Prior to this addendum, other theories were developed as a response to the missing instructional focus deemed inherent to transformational leadership.

Shared Instructional Leadership

The concept of shared instructional leadership was first proposed by Marks and Printy (2003) as a response to problems they viewed inherent to the theories of instructional leadership and transformational leadership. They argued that instructional leadership exists as a top-down model, lacking in the advancement of teachers' leadership skills, and thus, potentially hindering a more collaborative environment (Marks & Louis, 1997). They assert that true instructional leadership is unnecessary if teachers themselves are competent professionals and are motivated to continuously improve their craft (Marks & Printy, 2003, p. 373). While transformational leadership was then developed as an answer to the hierarchical nature of instructional leadership by focusing on development of a positive organizational culture for school reform, transformational leadership has its own limitations (Hallinger & Leithwood, 1998). Specifically, it does not account for curriculum and instruction. Whereas instructional leadership addresses curriculum and instruction, it does not address the climate behind teacher empowerment. Transformational leadership, on the other hand, is focused on developing a positive climate, but it lacks consideration of how motivating change specifically looks with respect to teaching and learning and the role of teachers in that change.

Shared instructional leadership is conceptualized as an integrated form of leadership; a combination of instructional and transformational elements. More specifically, it is collaborative in nature regarding the role of principals and teachers and ensures that motivating change from the leaders perspective is appropriately focused on the core of schooling: curriculum and instruction. Marks and Printy (2003) describe the principal, in this form of leadership, to be the "leader of instructional leaders" (Glickman, 1989, p. 6). Scholars claim transformational leadership is a necessity for true school improvement, but that is will do nothing to specifically

enhance teacher quality and student learning. Additionally, in regard to the hierarchical qualities of instructional leadership, it has been asserted that teachers have "both the desire and expertise to lead" (p. 393), rather than depending upon their principal in these matters. Therefore, Marks and Printy (2003) believed shared instructional leadership should be fostered in schools, by way of cultivating the capacity of the organization as a whole, as well as growing individual competence in teacher leaders.

Leadership for Teacher Learning

Extensive evidence indicates there exists a variety of ways to create organizational conditions which facilitate the growth and development of teachers in schools (Bredeson, 2000; Coburn, 2001; Printy, 2008; Wahlstrom & Louis, 2008). Many processes and practices used to cultivate an environment ripe for professional learning include components of instructional, transformational, and shared instructional leadership. In the review of literature, a few themes emerged regarding recommendations for how principals can establish professional learning climates. These include: reflection on practice to improve competence, collaboration and social learning communities, as well as the provision of autonomy support (Eyal & Roth, 2011; Ford & Ware, 2018; Geijsel et al., 2009; Tschannen-Moran, 2009).

One method to cultivate a climate for teacher growth and development includes a focus on reflective practice in the school and providing teachers with opportunities for intellectual stimulation in order to increase competence. Bandura (1986) claims that there is a relationship between self-efficacy and an environment where expectations for performance are high, so long as those expectations come with specific, attainable objectives. In such an environment, teaching staff are expected to reach a certain level of competence in their practice, but are provided with the support and structure to do so. Thoonen et al. (2011) found instructional quality in the

classroom was less affected by teacher research behaviors (reading literature) than it was by their ability to participate in experimentation and reflection on teaching. School leaders need to provide supportive, trusting, and enabling environments which allow for such honest reflection and innovative practice (Ford, 2019; Ford et al., 2019 Ford & Ware, 2018).

A second way in which leaders can establish a culture of teacher growth includes the implementation of social learning communities. The concept of communities of practice was first described in a book by Lave and Wenger (1991), with its roots in social theory. Communities of practice can evolve naturally, by way of members possessing similar interests and goals, or may be purposefully created by a group with the intention to grow and develop in a particular area. The cornerstone of a community of practice is the aspect of *community*, learning through peer socialization. As stated by prominent researchers in learning communities, "Talk is the bridge between educational values and improved practice in schools" (Louis & Kruse, 1995, p. 30). Although communities of practice (Printy, 2008) can serve as the foundation for this portion of the literature review, it is also important to emphasize work by authors who have pinpointed the elements of organizational climate necessary to develop and maintain social learning in schools—communities of practice being one of them.

According to Supovitz, Sirinides, and May (2010) as well as Wahlstrom and Louis (2008), a critical step in establishing a community of learners involves the leader's ability to foster trust between themselves and staff, as well as among peers. When this occurs, teachers are able to make a greater degree of change, and thus, are better prepared to take part in such a community. Collaboration among teachers increases engagement in experimentation and reflective practice, raises internalization of organizational goals, which in turn, leads to an improved ability to adapt and participate in professional learning (Thoonen et al., 2011). In

schools operating with communities of learners, teachers are able to provide feedback to one another so the practices of all educators in the school can improve.

Another theme found repeatedly in the literature for teacher learning includes a focus on support for teacher autonomy (Tschannen-Moran, 2009). The organizational culture in which a teacher is situated plays a significant role in either helping or hindering their professional growth and development (Clarke & Hollingsworth, 2002, p. 962). Thus, while teachers themselves may be motivated to learn, the support, or lack thereof, with respect to school climate has the potential to drastically alter their goals and how they pursue them. More specifically, Printy (2008) makes claims to the principal's crucial role, asserting leaders must "...establish a school vision that can serve as a guide for teachers' joint work, extend support for teachers' effort, and protect teachers from external interference" (p. 215). Ford and Ware (2018) elaborate on this point by emphasizing the immense pressure teachers have been subjected to under top-down accountability policies. Without autonomy support, a culture of compliance hinders learning, and thus teacher growth and development may stagnate, and/or teachers may experience burnout. As Ford et al. (2019) assert, "There can often be a sizable difference between what a happy, engaged teacher contributes to school climate and student learning and a dissatisfied teacher who is thinking about or planning on quitting." (p. 616). Furthermore, studies have shown that teachers who interpret their school structures to be autonomy supportive typically have more trust in their principal and are committed to remain at their school (Sinden et al., 2004a, b). Principals can provide these conditions to support autonomy through collective decision making as well as allowing for teacher voice and choice (Ford et al., 2019). Table 1 below summarizes these distinct yet overlapping conceptual frameworks for thinking about the relationship between leaders and the teachers they lead.

Table 1

Leadership Types Summary

Instructional Leadership	Transformational Leadership	Shared Instructional Leadership	Leadership for Teacher Learning
Hallinger and Murphy (1985); Hallinger and Heck (1996); Murphy (1988); Shepperd (1996)	Burns (1978); Bass (1985); Leithwood, Day, Sammons, Hopkins, and Harris (2006)	Marks and Printy (2003)	Geijsel et al. (2009); Tschannen-Moran (2009); Eyal and Roth (2011); Ford et al. (2019); Ford and Ware (2018)
● Defining School Mission ○ Framing School Goals ○ Communicating School Goals ● Managing Instructional Climate ○ Supervising and Evaluating Instruction ○ Coordinating Curriculum ○ Monitoring Progress ● Promoting Positive Organizational Learning ○ Protecting Instructional Time ○ Promoting Development ○ High Visibility ○ Academic Standards ○ Incentives to Teachers ○ Incentives to Students	• Setting Direction ○ Shared Vision / Goals ○ High Performance Expectations • Developing People ○ Individualized Support ○ Intellectual Stimulation ○ Appropriate Model • Redesigning Organization ○ Collaborative Cultures ○ Restructuring ○ Relationships with Families/Communities ○ Connecting School to Wider Environment • Manage Instruction ○ Staffing the Program ○ Instructional Support ○ Monitoring Activity ○ Buffering Distractions	● Developed in response to 'flaws' inherent in Instructional Leadership and Transformational Leadership models ● Collaborations between leader and teachers for curriculum and instruction ● Cultivate organizational capacity as well as individual competence through teacher leaders	● Specific themes emerged through examination of literature findings on teacher learning ○ Reflection on practice to improve competence ○ Collaboration and social learning communities ○ Autonomy support

Teaching Expertise

Expertise, as a research concept, has been examined in the literature for a significant period of time. The construct was introduced through the study of chess masters 50 years ago (deGroot, 1965). In-depth analysis of expertise has since spread to other domains, through examining the roles of natural talent and deliberate practice in the making of experts in fields such as music, medicine, and athleticism (Bloom, 1985). When the research agenda expanded to include teaching, the concept was initially applied to physical education teachers (Housner & Griffey, 1985). The construct made its way into mainstream educational research when Berliner elucidated his model of teaching expertise during the Presidential Address of the American Educational Research Association (Berliner, 1986). His later-developed conceptual framework brought expertise from the fringes and into the forefront of educational research.

There are now a multitude of theories and frameworks examining teaching expertise, but only a few will be elucidated here due to their frequent use in literature and relevance to this particular study. These frameworks cover the concept of teacher expertise through four distinct lenses/perspectives: a developmental lens, a knowledge and skill approach, a cognitive perspective, and by way of social membership and recognition. The work of the following researchers is reviewed: David Berliner (1994), Lee Shulman (1986), Robert Sternberg and Joseph Horvath (1995), as well as Douglas Palmer, Laura Stough, Thomas Burdenski, and Maricela Gonzales (2005). While each framework contributes to our depth of knowledge into expert teachers, I conclude by advancing a synthesized model of teacher expertise for the purposes of this study.

Expertise - Developmental Model

David Berliner's (1994) concept of teacher expertise includes a five-stage model of pedagogical growth, accounting for the progression from novice teacher to expert teacher. Tracking from the first level, novice, to the final and fifth level, expert, improvement in teaching is viewed as a function of time and experience, planning and adjustment for change, recognizing patterns, and development of natural fluidity. Each stage in the growth toward expertise contains qualities in which Berliner attempts to capture teachers' performance in the classroom. An important caveat to consider is that although the stages of growth progress in terms of time and experience, expert teachers are not made so by simply the passing of time. To gain a more comprehensive picture of this model, each phase is clarified in detail.

Novice teachers are usually in their first year of teaching, are often dependent upon a discrete set of "rules" to function and may be unable to adapt to unexpected situations. Leaders and peers should keep in mind that teachers at this level should only be expected to have minimal skill, and thus, both small and large missteps may be inevitable. Essentially, this year is meant only for gaining experience in the field. Some may understand this to mean students of novice teachers to be products of an experiment.

Advanced beginner is what Berliner refers to as the second phase of pedagogical growth. Professionals in this category are usually in their second or third year of teaching and spend their time integrating their theoretical knowledge learned in pre-service education with their experiential knowledge gained from working with students (Berliner, 1994). Although the rules are more readily understood and can be broken when necessary at this level, teachers here may fail to see through the mess and hone in on what is important (Dunn & Shriner, 1999; Elliot, 2009). For instance, while it is important to review the day's schedule with the class each

morning, abandoning this routine would be necessary, for example, if a student were in the midst of an emotional meltdown; something advanced beginners may not yet feel equipped to deal with. Often having limited agency means advanced beginners tend to blame others for their mistakes as they are unable to recognize patterns, as well as causes and effects in the classroom environments (Berliner, 1994; Elliot, 2009; Glaser, 1987, 1990; Ryan, 2006).

The third level, competency, is composed of some teachers in their third to fourth years of teaching, and this phase encompasses independence in their ability to set out their own curricular plans, and the capacity to adjust to unforeseen conditions (Berliner, 1994). Unfortunately, not all teachers make it to this level of development, even if they have been teaching for a while. This stage is an important and distinguishing one, as it seems to appropriately differentiate development based on experience and time alone, versus development based on true growth. Finally, educators in this stage appear to take responsibility for actions in their classroom but continue to struggle in acting with fluidity and flexibility (Bereiter & Scardamalia, 1993). For instance, when an unexpected situation arises or a lesson does not go as planned, teachers at this level may require additional time to alter instruction and/or may need to have a backup plan in place.

In and around the fifth year of teaching is when teachers reaching competence may transition into the proficient phase of Berliner's model. The primary characteristic differentiating this stage from the previous involves the development of intuition. Intuitive teachers are often able to make small adjustments to instruction, with little to no thought, in order to best meet the needs of their students. Additionally, these educators have grown in their ability to see patterns, and thus, are more able to predict events and solve problems in the classroom, often with

preemptive action before said issues occur, as long as decisions are preceded and/or followed by analytics and deliberation (Berliner, 1994).

The fifth and final stage, expert, includes proficient teachers with not only the ability to recognize patterns, but also ones who act with fluidity in their teaching. The effort with which these teachers instruct their students appears minimal. Yet, often, they are unaware of their seemingly natural ability to reach and teach. This behavior in the act of teaching is most accurately captured by Schon's (1983) description of reflection-in-action: Professionals reflect *during* the act of instruction by immediate problem solving. Only when serious issues arise does in-depth deliberation occur.

Expertise - Knowledge and Skills Approach

Lee Shulman (1986), another prominent researcher in the field of teaching expertise, developed the concept of Pedagogical Content Knowledge (PCK) with regard to teacher expertise. He went beyond previous notions of what constituted knowledge required by teachers, and asserted educators need to understand both *how* students learn and *what* should be taught. In another of Shulman's papers (1987), he provides a distinct and clear definition of PCK: "...the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction...is the category [of knowledge] most likely to distinguish the understanding of the content specialist from that of the pedagogue" (p. 8).

Much of prior teacher certification standards and educational research has been focused on pedagogy, the notion of teaching itself, rather than content. Pedagogical emphasis includes classroom management techniques, organization of instructional time, structuring curricular plans, interacting with students, assessing learning, etc. (Shulman, 1986). Included in teaching

literature prior to this seminal piece, the author describes multiple techniques purported to be considered effective teaching, such as wait time, direct instruction, time on task, and others. While each of the aforementioned aspects are necessities in the recipe for good teaching and student learning, the missing ingredient, what Shulman refers to as the "missing paradigm," is subject matter knowledge.

Content knowledge, according to Shulman, is akin to the subject matter knowledge best described by Joseph Schwab (1978). Schwab's definition of subject matter knowledge has two distinct facets: substantive structure, as well as syntactic structure. The former encompasses how concepts are organized into relative facts in a domain, while the latter refers to rules which help determine what is to be deemed truthful or implausible in any given discipline. Regarding specific requisites of content knowledge, teachers should be adept at defining the "truths" in a subject, explaining why the aforementioned truth is so, why it needs knowing, and its relationship to other aspects of the domain. Additionally, educators are expected to make judgments on which truths are vital knowledge requisite to the subjects being taught and which are less significant for students to learn, much like a content hierarchy germane to each subject.

Pedagogical content knowledge, Shulman's concept, is considered a subtype of content knowledge. The type of knowledge needed in a particular subject to be able to effectively teach it so that others may learn. This includes knowing the best ways in which to illustrate specific concepts in order for students to comprehend them. Because no two children are alike and learning styles vary widely, educators must have command of a multitude of best practice instructional techniques, whether they be research based or rooted in practical experience. Also required for teachers is mastery of child development norms and resultant background knowledge typically acquired at each age/grade level in order to understand and act on various

concepts which might be simpler or more difficult to learn, and thus, develop an instructional hierarchy for the subjects being taught.

Expertise - Cognitive Perspective

The need for continued research in the area was seen by Sternberg and Horvath (1995), who deemed previous models of expertise essentially incomplete. These researchers claimed expert teaching was too complex a matter to capture in a simple framework comprised of line-item requirements. Thus, a prototypical model of the expert teacher was developed through their study of the subject. In this research, expert teachers, as a group, are differentiated by knowledge, efficiency, and insight as compared to teachers at other career stages. A further breakdown of characteristics involves qualities such as automaticity, self-reflection (Schon, 1983), innovative problem-solving skills, and flexibility. In addition to these traits, it is important to note expert teachers, to achieve this status, must also have the know-how to further develop and grow their skills (Sternberg & Horvath, 1995).

Regarding knowledge of expert teachers, the first caveat involves how their superior knowledge is stored. Not only do experts obviously have more knowledge than novices, but this command of information is stored in more readily accessible schemas. Expert teachers often also possess knowledge of the social construct under which teaching occurs. This means they not only understand theories and ways in which to integrate them in the classroom, but also how to "work the system" (p. 12) in order to best serve their students and insulate themselves from the politics of teaching.

An additional trait which differentiates novices from experts is efficiency, the expert's ability to solve problems with increased speed and ease. The notion of automaticity comes into play in this variance in trait. Experts are able to complete the same amount of work in less time,

or more work in the same amount of time, as compared to novices. Researchers have attributed this skill to the efficient sorting of cognitive processes in that skills which are initially resource consuming tend to become automatic with considerable practice, thus using little to no cognitive capital. Furthermore, reflection on practice, from Schon's (1983) work, is yet another important distinction in regard to the experts' ability to problem solve. While novices tend to focus on generating a solution, the expert teacher reflects deeper on practices and problems prior to making attempts to generate a solution.

The third qualifying characteristic in identifying experts is that of insight. Creative problem solving and flexibility enhance an expert teacher's ability to code particular information as relevant or irrelevant to the task at hand; thus, distinct deliberation on the real issue allows for the use of innovation and precise problem solving. It is important to note that the quality of insight is only gained by way of also possessing the aforementioned traits of knowledge and efficiency. Essentially, each of these characteristics build upon one another, and for the expert to problem solve creatively, they must first have representative knowledge stored appropriately as well as the capacity to perform their work efficiently.

Expertise - Social Membership and Recognition

More recent educational scholarship on expertise by Palmer, Stough, Burdenski, and Gonzales (2005) discusses other requisite qualities of expert teachers. They claimed that although Berliner's (1994) model is widely used, it remains altogether ambiguous in its ability to pinpoint experts, as found by an examination of multiple studies whose selection of experts varied despite use of the same conceptual model (Palmer et al., 2005). In the study completed by Palmer and his colleagues (2005), a few themes on expert identification emerged, including deliberate practice and experience, social recognition, and membership in professional groups.

The first theme, teaching experience, includes a variety of characteristics regarding time and instructional domain. Culminating from a multitude of studies on hours of practice required for expertise, these authors conclude that a minimum of five years is necessary in order to examine teachers for expert determination. Additionally, because expertise is contextually bound, at least three of the five years of experience should be in the domain in which teachers are being considered for expertise (Palmer et al., 2005). For instance, a teacher with a minimum of five years' experience in the field should have a minimum of three years' experience in the same subject and grade level.

Social nomination-recognition and performance, the second criterion, provides evidence of teaching effectiveness. The authors argue expertise in teaching should be recognized by at least two different organizations, whether it be through nomination by peers (such as Teacher of the Year) or by receiving an award or accreditation from a particular institution related to the teacher's instructional domain. In addition to recognition from peers or authorities, indicators of superior performance should also be used in expert determination (Palmer et al., 2005). This type of performance indicator is likened to a value-added measurement (VAM) or an otherwise suitable measure of teacher effect on student achievement, as they claim "documented impact on student performance should be the 'sine qua non' of teaching expertise" (p. 22). Given on-going concerns about the validity and reliability of VAM in accountability and other related evaluation situations (American Educational Research Association [AERA], 2000; American Statistical Association [ASA], 2014; Amrein-Beardsley, 2006), it may be most appropriate to use qualitative components of teacher evaluation scores, if calibrated, until a more adequate measure of achievement effects is found.

The third and final theme emerged in the authors' literature is that of membership in professional groups or organizations. Although little support is found in the research regarding additional degrees for teachers and subsequent effects on student achievement, there is something to be said for certification and membership through the National Board for Professional Teaching Standards. Much like Sternberg and Horvath's (1995) prototypical model, the criteria found for teacher expertise in this review of the literature is only valid when each theme builds upon the another. In this way, expert teachers must first have the requisite experience, should then be recognized by at least two social nominations and performance indicators, and lastly, ought to belong to appropriate professional groups tied to evidence-based findings of educator knowledge and skill. Table 2 below provides a basic summary of these four distinct models of teacher expertise.

Table 2

Teacher Expertise Models Summary

Developmental Model	Knowledge and Skills Approach	Cognitive Perspective	Social Membership and Recognition
Berliner (1994)	Shulman (1986)	Sternberg and Horvath (1995)	Palmer, Stough, Burdenski, and Gonzales (2005)
● Novice ○ 1st year of teaching ○ Need rules to function ○ Minimal skill ● Advanced Beginner ○ 1st-2nd year of teaching ○ Theoretical and experiential knowledge ○ Limited agency ● Competent ○ 3rd-4th year of teaching ○ Independence in curricular plans ○ Adjust to unforeseen ○ Based on true growth ● Proficient ○ 5th year of teaching ○ Intuitive teaching ○ Analyze patterns ● Expert ○ Beyond 5th year ○ Fluid actions ○ Reflective in action	● Teachers understand how students learn *and* what topics should be taught ● Pedagogical Content Knowledge ○ Knowledge in specific subject to teach it so others may learn	● Prototypical Model ○ Family resemblance in experts' knowledge, efficiency, and insight ○ Includes qualities of automaticity, self-reflection, problem solving, flexibility ○ Know-how in being labeled an expert to further develop skills	● Take off from Berliner's original model, but authors lamented the ambiguity in expert identification ● Teaching Experience ○ Minimum of five years' experience ○ At least three years in specific domain ● Social nomination-recognition and performance ○ Recognized by two organizations ○ Indicators of superior performance ● Membership in professional groups ○ Certification and membership in groups tied to evidence-based findings of skill ● Themes build on one another

CHAPTER 3:

CONCEPTUAL FRAMEWORK

Proposed Integrated Model of Expertise

In the most common fields of study, the delineation of what constitutes an expert is often based on some set of performance standards. While this method of identification works well for other fields, evidence of the utility of these types of metrics in the educational realm—in particular for teachers—is much more in doubt (Darling-Hammond et al., 2012; Ford et al., 2017; Ford, Urick, & Wilson, 2018). Basing the determination of expert teachers on student performance becomes a convoluted issue due to myriad other factors involved in student achievement. While a multitude of evidence points to teaching as vital to student success, according to Fink and Markholt (2011), an agreed upon view of what constitutes quality teaching remains to be advanced. Therefore, identifying expert teachers is a complex matter. The previously reviewed models have significantly contributed to our knowledge base, yet for the purpose of this study, an integrated model of expertise is necessary. In line with the goals of this research study, the purpose of this chapter is to advance such an integrated model and discuss how aspects of teacher expertise and be supported and/or developed by school leaders and how such support might differ according to career stage.

The integrated model in Table 3 utilizes various aspects of expertise research from the reviewed literature in the past chapter. The distinct types of expertise, novice, competent, and expert, were pulled from Berliner's (1994) developmental model of expertise. Categorizing by total years of experience came from both the developmental model (Berliner, 1994), as well as the perspective of social membership and recognition (Palmer et al., 2005). Specifying requisite years in a specific domain is also pulled from the social membership and recognition perspective

of expertise. The examination of a teacher's memberships and certifications for expert identification is a combination of recommendations from the knowledge and skills approach (Shulman, 1986), the cognitive perspective (Sternberg & Horvath, 1995), as well as social membership and recognition (Palmer et al., 2005). Classification based on a teacher's evaluation, or principal rank, stems from descriptors in the developmental model (Berliner, 1994), cognitive perspective (Sternberg & Horvath, 1995), and social membership/recognition (Palmer et al., 2005). Lastly, the distinction of honors and awards is pulled from the cognitive perspective (Sternberg & Horvath, 1995) and social membership/recognition (Palmer et al., 2005). Of course, one caveat to this integrated model is the understanding that a teacher may meet most of the criteria for "expert" status, but may lack one (or perhaps two). These are meant to be less rigid and more guidelines for the criteria for each career stage. There are likely educators who fall between each distinct grouping that might be selected for participation in this study, more discussion on this point will be forthcoming in the methods section.

An additional component included for measuring career-staged teachers is that of culturally responsive teaching. Geneva Gay's (2000) definition of culturally responsive teaching is the most widely accepted terminology in the literature. Gay defines this practice as "…using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them. It acknowledges legitimacy of cultural heritages of different ethnic groups as worthy content to be taught in the formal curriculum… builds bridges of meaningfulness between home and school experiences… uses a wide variety of instructional strategies connected to different learning styles… teaches students to know and praise their own and each other's cultural heritages… incorporates multicultural information, resources, and materials in all the subjects taught in

schools" (p. 29). While this aspect of identified expertise is not tied explicitly to the teaching expertise literature, one could surmise that a teacher cannot be considered an expert without some degree of competence in reaching and teaching a diverse group of students. This is true most specifically because traditional teaching practices fail to account for the gap between the white, middle-class values they are based upon and the increasing cultural diversity of current student populations (Hill & Torres, 2010). Culturally responsive teaching is particularly important in districts wherein educators' demographics are not representative of the student populations they serve, a situation increasingly common across the United States. The Multicultural Competence (MCC) score listed in Table 3 below represents teachers' agreement on a 5-point Likert scale as to a variety of statements regarding their skills in reaching students of diverse populations (Siwatu, 2007 and Hsiao, 2015).

Table 3

Proposed Integrated Model of Expertise for Classification of Participant Teachers

	Total Years' Schools	**Years in Domain**	**Memberships and/or Certifications**	**Evaluation / Principal Rank**	**Honors and Awards**	**Multicultural Competence Avg Score**
Novice	0-1	0-2	None	Varied	None	Varied
Competent	2-6	3-4	One or More	3 + on TLE	Nominated	3+
Expert	7 +	5 +	Rigor (e.g. NBCT)	4 + on TLE	Won	4+

Theoretical Framing for Teacher Expertise by Career Stage

In order to thoroughly explore and investigate the leadership approaches necessary for teacher growth in learning and development, particularly in relation to career stage development, Self-Determination Theory (SDT) was selected as an appropriate theoretical framework, since it

is considered a social-cognitive theory of learning and motivation. SDT was introduced by Deci and Ryan in 1985 and describes the various approaches to and contexts under which human motivation is optimized in relationship to one's environment. A continuum of motivation ranges from complete amotivation, through various stages of extrinsic motivation, and ends with intrinsic motivation on the other end of the spectrum (Ryan & Deci, 2000). According to Eyal and Roth (2011), a person might experience amotivation in a specific context due to the individual: a) holding little or no internalized value in the the activity (Ryan, 2006), b) not expecting positive results (Seligman, 1975), and/or c) not feeling competent in performing said activity (Bandura, 1986; Deci, 1975). A person may progress along the continuum to become more motivated if they believe their participation might produce a desired outcome (Eyal & Roth, 2011).

Self-Determination Theory is comprised of six mini theories, one of which is Basic Psychological Needs Theory (BPNT). BPNT as a sub-theory specifically addresses contexts where individuals place intrinsic value on the activity. The primary claim of BPNT is that, for intrinsic motivation to be sustained and activated, humans require certain social conditions to be in place (Deci & Ryan, 2002). These psychological needs for human development are much like a body's physical need for food and water; and when conditions are met, can help to sustain intrinsic motivation and well-being, but when absent, can lead to adverse outcomes (Ryan & Deci, 2000). Basic Psychological Needs Theory posits the following three psychological needs to be fulfilled: competence, autonomy, and relatedness. Competence is essentially when a person feels successful and effective within their social environment; not necessarily related to genuine capability, but more so a sense of confidence (Deci, 1975; Harter, 1983; White, 1959). Thus, a distinction can be made between a person being truly capable and somewhat lacking in

confidence, versus a person feeling successful but not necessarily highly adept. Autonomy, the second condition, is somewhat similar to a sense of independence in decision making. More accurately, it is a person's perception as to the basis of and motivation for their actions (deCharms, 1968; Ryan & Connell, 1989). When individuals feel as though they have a "say" in their decisions, they may better identify with the value of their subsequent actions and thus, become more motivated to reach a specified goal related to that decision (Deci & Ryan, 2002). The final component, relatedness, refers to a sense of community, to belonging with and feeling connected to those in one's environment (Baumeister & Leary, 1995; Bowlby, 1979; Harlow, 1958; Ryan, 1995).

Each component of BPNT has a direct link to psychological well-being and human development (Reis et al., 2000), and thus, in schools, school leaders play an important role in making sure these needs are provided for by way of cultivating a healthy organizational climate (Ford & Ware, 2018). As authors Ford and Ware (2018) claim, "Effective school leaders recognize that schools are powered by people, so they seek to understand the needs of their staff and students" (p. 22). When employees' needs of autonomy, competence, and relatedness are met, this predicts work performance (Baard, Deci, & Ryan, 1998) as well as general well-being (Deci and Ryan, 2000). To substantiate these claims, Baard, Deci, and Ryan (1998) also make claims that if satisfaction from something leads to growth, then it is considered a need, and if it is not associated with a growth, it is only a desire rather than a need. Additionally, when managers are perceived as supportive in the need for autonomy in particular, employees exhibit greater satisfaction at work, are absent less from their place of employment, and report better well-being (Blais & Briere, 1992). Thus, it could be postulated that when teachers experience high levels of support in these basic psychological needs, they are more motivated to learn and improve their

own teaching. In fact, each of the three conditions of BPNT is linked to increased teacher motivation and extra effort in teaching (Geijsel et al., 2003).

On the other hand, when basic psychological needs are thwarted, it can lead to devastating consequences for teachers and students alike. For instance, Niemiec and Ryan (2009) found teachers' levels of enthusiasm and creativity in their teaching diminished as their needs for autonomy went unmet. Additionally, Taylor et al. (2008) found teachers felt none of the three needs of competence, autonomy, and relatedness were being met as their perception of job pressures job increased. Needless to say, provision of needs support, for all three components of BPNT, is vital to the growth and development of teachers for their psychological well-being, and thus, their motivation for continued learning and improvement. It is crucial for leadership in schools not already providing support to make specific adjustments to their organizational environments to develop and enrich satisfaction of these needs (Gorozidis & Pappaioannou, 2014).

Relatedness, one element of Basic Psychological Needs Theory, is an important component in establishing a school climate which supports teachers in their growth and well-being. In fact, Boyd (1992) makes claims that teachers' learning and improvement is dependent upon the degree to which leadership supports collaboration among colleagues. Results from a study by Flores (2004) corroborate the above claim in that informal learning is most likely to occur in environments which facilitate teacher collaboration. One way to structure an atmosphere of collaboration includes "creating school environments that allow physical proximity and many opportunities for informal social encounters" (In de Wal et al., 2004, p. 34). Situations in which teachers are essentially functioning as islands do little-to-nothing to aid in their growth and development. According to Lohman (2006), teachers' motivation for learning is low when their

physical location is far from colleagues, particularly those in the same department or same grade level, as there are less opportunities for collaborations between colleagues to occur (e.g. Desimone et al., 2014; Lohman, 2000; Lohman & Woolf, 2001). Thus, repeated themes in the research claim relatedness support is best provided through organization of a school climate which allows for collaboration, by way of purposeful physical placement as well as scheduling to allow for social learning opportunities. Such measures can also help provide for competence support as well. Enhancing relatedness support can also be accomplished through conveying warmth, care, and respect (Niemiec & Ryan, 2009).

Autonomy, the second component of BPNT, may be misperceived as antagonistic to relatedness, due to its relationship with freedom of choice and independence, but it is important to note this understanding is inaccurate. Niemiec and Ryan (2009) recommend specific strategies for autonomy support from leaders to include: shielding employees from outside pressures, acknowledging both positive and negative emotions of staff, and communicating the underlying principles of expectations and activities. Additionally, perceptions of principal behaviors, while not necessarily the leaders' intent, also play a role in facilitating development of teacher leaders. For instance, staff perception of leaders who are 'making space for individual innovation' and 'incorporating the aspirations and ideas of others' inspires teacher growth and development (Cheng & Szeto, 2016). Autonomy is a vital provision necessary for teachers to develop competence and grow in the field. Teachers should be given the freedom to undertake professional learning of their choosing, rather than forced into a set of requirements, as well as be supported in flexibility for scheduling and timing of said professional development (In de Wal et al., 2014). According to Clement and Vandenberghe (2000, 2001), when leadership respects both the independence *and* interdependence of teachers, this often translates to improved

learning; hence, autonomy and relatedness are crucial provisions in order for teachers to develop the third element of SDT, competence.

Competence, the final component of BPNT, is the experience of effectively interacting with one's environment. This particular element is often built upon and improved by way of provisions for the other two domains in BPNT, autonomy and relatedness. For instance, In de Wal et al. (2014) assert choice in learning and collaborative opportunities meets the need for autonomy, but also supports competence as well. Furthermore, allowing teachers this freedom of choice for professional learning serves as positive feedback, which aids in developing competence (Ryan & Deci, 2002). Regarding feedback, leaders should ensure it is effective and relevant to the teachers' specific need and/or context, rather than norm-based, such as summative ranking/rating scales (Niemiec & Ryan, 2009). In order to foster an environment which allows for successful experiences, Niemiec and Ryan (2009) also advocate for ensuring expectations are challenging, but obtainable, much like the concept of Zone of Proximal Development (Vygotsky, 1978) when educating students. When new concepts or strategies are too difficult, teachers' self-perception of competence can be greatly diminished. Tschannen-Moran and McMaster (2009) assert that these damaging beliefs may be corrected by way of additional support during this learning period. Leadership plays a critical role in promoting an organizational climate in which teachers' psychological needs are being nurtured.

Career Staging and Basic Psychological Needs Theory

While Self-Determination Theory, more specifically Basic Psychological Needs Theory, makes claims for needs support for the competence, autonomy, and relatedness of teachers for their overall well-being and development, it is plausible that support for these needs might vary or change depending on the career stage of the teacher. In fact, Derrington and Brandon (2019)

claim “A culture of continuous learning and improvement is nurtured when differentiated approaches to supervision and evaluation are used to respond to the varying needs, aspirations, and challenges of all career and developmental stages” (p. 23). Although diverse professional learning needs from one career stage to another has been previously studied (Burke et al., 1987), this was primarily viewed as a linear progression from one stage to the next and solely focused on learning and growth, rather than variation in psychological needs (Derrington & Brandon, 2019). In this section, I use SDT as a lens for theorizing about the ways in which this might be manifested. Teacher career staging, for the purposes of this section, will be based on the previously described integrated model of expertise (Table 3).

The novice stage, those at the beginning of their career with little to no applied teaching experience, may very well need high levels of competence and relatedness support from leaders, yet less support in the area of autonomy. More specifically, it is proposed teachers at this stage might require very particular professional learning opportunities based on practical knowledge components (high competence support), explicit rules and guidelines to function in their first year (low autonomy support), and a specific person or persons assigned as their mentor (high relatedness support). The existing literature essentially backs up many of these claims across all three psychological needs. For instance, many authors have reported that beginning teachers need professional development more so than experienced teachers, yet also exhibit more motivation for learning (Appova, 2009; Cameron et al., 2013; Flores, 2005; Richter et al., 2011). Echoed with a similar sentiment, Pogodzinski (2014) states “Novice teachers on average need more resources and support to adequately do their job…” (p. 46). He emphasized many teachers at this stage do not yet have the social capital in the organization to form connections within the school; therefore, the role of administration is vital in not only providing direct resources and

development, but also in establishing and facilitating mentor relationships. In support of this claim, Grangeat and Gray (2007) report novice teachers often use informal discussions and observations to grow and develop their practice, indicating the importance of relatedness support from leadership within the organization. Relatedness support not only allows for teachers to develop competence, but departmental peer collaboration also improves the likelihood of teacher retention in the field (Kapadia et al., 2007). Regarding the final component of BPNT for novice teachers, autonomy, researchers such as Flores (2005) have confirmed the aforementioned claim that beginning teachers are more likely to be directed to pragmatic learning opportunities, akin to survival techniques, for the first year or two. The primary learning focus of the first few years of teaching is often on practical skills, such as classroom management and disciplinary tactics (Burns, 2008; Burns et al., 2005). Regrettably, some beginning teachers may be "clinging to practices and attitudes that help them survive but do not serve the education needs of students" (Feiman-Nemsar, 2003, p. 27). Additionally, there is little existing literature specifically addressing autonomy support for novice teachers, and thus, near omission may lead one to believe it is of less importance when compared to relatedness and competence. This assumption falls in line with the above stated claim; novice teachers require low autonomy support due to the explicit need of simply learning concrete skills at this stage.

The next phase in teacher development, deemed the competent (or midcareer) stage, comprises limited research on psychological needs support. According to Rolls and Plauborg (2009), a possible cause of scarce research is teachers in this phase either commit to the profession or leave to explore other careers. However, it is important to note that others describe this phase as "the time period when energy, commitment, ambition, and self-confidence are at their highest" (Kyndt et al. 2016, p. 1115). Despite the lack of a breadth of research on this

particular career stage, we can nevertheless theorize about the types of leadership support that might be needed. Those in the competent stage of their careers may benefit from mid-levels of support in all three areas of psychological needs. For instance, competent teachers are no longer simply trying to survive, but rather, have experienced true growth and development, and might only need some guidance and encouragement to continue learning in a particular domain (mid-level competence support). Teachers at this stage may be able to learn and implement from observation of other educators with differing strengths (i.e., via vicarious experience), or they may require peer observations and co-teaching to aid in implementation of a new strategy (mastery experiences; Bandura, 1997; Derrington & Brandon, 2019). Further, the rigid structure provided in resources, development, and mentoring at the novice stage can ease in this phase, as increased trust and freedom can be allotted (mid-level autonomy support). Indeed, "educators are more motivated to embrace an idea when it is tailored to their interests and needs" (Derrington & Brandon, 2019, p. 248). Lastly, the mentor teachers may well have fallen by the wayside at this point in the competent teacher's career; however, all educators benefit from continued learning through informal means, as well as support from leadership in establishing structures that facilitate social learning (mid-level relatedness support). Huberman's research (1989) found competent teachers often use experimentation to improve and expand upon their practice, of which some support in all three psychological needs is essential to do. Derrington and Brandon (2019) also affirm the need for continued psychological needs supports with their assertion that "A high percentage of teachers are committed, successful, and student focused educators, who seek and benefit from helpful feedback, collegial dialogue, and high-quality professional learning. Supervision and evaluation can be important contributors to the quality of their teaching – especially within collaborative school environments in which school leaders respond

to their varying needs, aspirations, and challenges with differentiated approaches that promote and support career growth" (p. 21).

The final career stage in the integrated model of expertise is the pinnacle of growth and development—the level of expert. According to the premise of Self Determination Theory and the tenets of Basic Psychological Needs Theory, all three psychological needs must be provided for, no matter the career stage of the educator. Thus, despite a teacher having achieved this level of advancement, needs support should continue to be provided so the expert educator can continue to be challenged, feel a sense of well-being, and experience accomplishment in their occupational environment. It is likely educators in this career stage may need some support and guidance from leadership in specific areas for continued improvement and/or avenues to pursue in obtaining additional certifications for development (mid-level competence support). Research has demonstrated that more advanced teachers believe they require less professional development as they have mastered the skills necessary to be an educator (Appova, 2009; Cameron et al., 2013; Flores, 2005; Nawab, 2011). If one believes the talents needed for successful teaching are merely those learned in the novice career stage (i. e., practical, rule-based applications), then continuous learning may not be valued; yet, even expert educators need be lifelong learners devoted to improving their craft. In fact, Derrington and Brandon (2019) argue "Teachers in this high-achiever group, regardless of exemplary performance, need and want supervisor feedback to improve" (p. 252). As expert educators develop and implement more creativity in their teaching endeavors, leadership must grant leeway and freedom for this prospect (high level autonomy support). For instance, experienced teachers have typically used formal meetings and trainings as their professional learning opportunities; yet, they also reportedly spend more time reading literature than less experienced colleagues, suggesting

expert-level teachers simply prefer different styles of learning opportunities (Grangeat & Gray, 2007; Richter et al., 2011). Lastly, much like the competent stage teacher, expert educators no longer require directed guidance from a specific mentor, but relatedness may be best served for these educators by placing an expert teacher in a mentor relationship with a novice teacher as mentee (mid-level relatedness support). For instance, authors Brennan, Thames, and Roberts (1999) found that as expert teachers participated in mentoring relationships with novices, it proved to be a valuable experience for both in regard to teacher efficacy. Patrick et al. (2010) also bolstered this claim, affirming more experienced teachers actually learn from their interactions while mentoring novices.

To conclude, much of the literature centering on needs support and career staging does in fact allude to differing needs based on the educator's stage of development in the profession. Novice teachers often need high competence and relatedness support, but lower levels of autonomy support. While the research on competent/midcareer teachers on this subject is somewhat scarce, it can be inferred educators at this stage require mid-level needs support in all three psychological domains. Finally, expert teachers need high support for autonomy, mid-level relatedness support, and in an era of continuous learning, mid-level competence support as well. This study hopes to tease out and answer the questions as to the precise psychological needs of teachers at varying career stages.

CHAPTER 4:

METHOD

Recall that aim of this study was to explore, through the lens of self-determination theory (SDT), teacher experiences with leadership support through the various career stages – novice, competent, and expert. This broad purpose was addressed in two specific ways: 1) by advancing theory on leadership for career-staged teacher learning and development through the lens of self-determination theory; and 2) to empirically investigate, through eliciting the perspectives of current novice, competent, and expert teachers, how their experiences with school leadership have fostered their growth and development. More specifically, the research questions were:

1. Using the lens of self-determination theory, how well do teachers at varied career stages feel their psychological needs are being met at work?
2. In the opinion of novice, competent, and expert teachers, how have their experiences with leadership shaped their growth and development in the field?
3. In what ways, and to what degree, do identified expert-level teachers recognize the role of leadership in their growth to this exemplary career stage?

In pursuing answers to these questions, this study used a mixed methods approach, with analysis of both quantitative and qualitative survey data, as well as follow-up interview data for more targeted responses from experts. Table 4 presents a summary of the research questions along with the corresponding data collection, instrumentation and measures, and analytical approaches for each.

Study Sample and Initial Teacher Expertise Stage Categorization

A survey consisting of career-stage categorization information (Tables A1 and A2, see Appendix A) was sent out to all certified educators across a suburban school district, with use of

Table 4

Overview of Research Design

	Research Question	Data Collection and Measures	Data Analysis
Research Question 1 (RQ1)	Using the lens of self-determination theory, how well do teachers at varied career stages feel their psychological needs are being met at work?	5-Point Likert Scale Survey with all Teachers; Open-Ended Question Selections from the Work-related Basic Need Satisfaction Scale (Van den Broeck, VanSteenkiste, De Witte, Soenens, & Lens, 2010); Open-Ended Interview Question	Quantitative: Descriptive Statistics Qualitative: Analysis of Content
Research Question 2 (RQ2)	In the opinion of novice, competent, and expert teachers, how have their experiences with leadership shaped their growth and development in the field?	5- Point Likert Scale Survey with all Teachers and Select Principals; Open-Ended Question Modifications of the Principal Support for Teacher Psychological Needs (PSTPN) (Olsen, 2017); Open-Ended Interview Question	Quantitative: Descriptive Statistics Qualitative: Analysis of Content
Research Question 3 (RQ3)	In what ways, and to what degree, do identified expert-level teachers recognize the role of leadership in their growth to this exemplary career stage?	Individual Interviews with Expert Teachers Open-Ended Interview Protocol	Qualitative (NeoPositivism): Analysis of Content

questions aimed at identifying the correct career-stage for surveyed teachers according to the criteria from the proposed integrated model of expertise. The survey also included all measures and open-ended responses needed for research questions one and two. Regarding the career stage information, the data for the last column in Table 3, Multicultural Competence, was determined by averaging the 5-point Likert Scale responses from the survey questions in Appendix A, Table A2. Over 800 educators in the district were sent the survey in an online format, resulting in 94 completed surveys of 814 possible respondents (11.55% response rate).

After survey responses were received, data was used first to situate educators in the distinct categories from the integrated model in Table 3. Since descriptions and typographies are nuanced, there were educators who met only some of the criteria for each classification. Thus, a more intricate classification methodology became necessary. The modifications to the initial classifications in the Integrated Model are presented in Table 5. In classifying teachers according to career stage, they were first sorted by their self-reported years' experience in public education and/or years' in their specific domain, according to Berliner (1994) and Palmer et al. (2005) models of expertise. Following, teachers were classified according to their rank on the Teacher and Leader Effectiveness (TLE) Scale, based upon the research from Berliner (1994), Sternberg and Horvath (1995), and Palmer et al. (2005). Hill and Torres' (2010) concept of multicultural competence was the third variable assessed in categorizing career stages for teacher expertise.

The final considerations in classifying teachers were memberships/certifications and honors/awards, based on the models of Sternberg and Horvath (1995) and Palmer et al. (2005). At the outset of these groupings, there remained some overlap between the novice and competent career stages; thus, teachers remained in the competent stage if they had a minimum of 2-6 years' experience in public education, a minimum TLE score of 4.0, *and* a minimum

multicultural competence score of 4.0. The classification criteria shown in Table 5 were utilized to organize teachers according to career stage in order to analyze the quantitative and qualitative survey data for results and discussion in answering research questions one and two, as well as identify experts for potential interviews to answer research question three.

Table 5

Actual Integrated Model of Expertise for Classification of Participant Teachers

	Total Years' Schools	Years in Domain	Evaluation / Principal Rank	Memberships and/or Certifications	Honors and Awards	Multicultural Competence Avg Score
Novice	0-1	0-2	Varied	Varied	Varied	Varied
Competent	2+	3+	4.0+ on TLE	Varied	Varied	4.0+
Expert	7+	3+	4.0+ on TLE	Rigor (e.g. NBCT)	Won	4.25+

Note. Table based on adjustments to the original Integrated Model of Expertise (Table 3).

Once educators were placed in their respective career stage grouping (based on responses from the questions in Tables A1 and A2, Appendix A), there were 13 novice teachers, 72 competent teachers, and 9 expert teachers. Thirty-one principals working with responding staff were asked to participate, in order to glean information from those in positions of leadership regarding their beliefs and assumptions of support provided to educators in their employ. Twelve administrators (38.71% response rate) completed the survey questionnaire with one additional respondent who began, but did not finish the survey (7.7% non-response rate).

Data Collection and Measures

The three research questions in this study were addressed by way of mixed methodology: a combination of survey responses and participant interviews. In addition to the initial selection

questions (Tables A1 and A2, Appendix A) sent to teachers, the survey included additional questions (Tables B1 and B2, see Appendix B) concerning: a) the meeting of their basic psychological needs at work, and b) principal support of their basic psychological needs. Based on the typographies from the integrated model in Table 5, a small subset of identified expert teachers participated in individual interviews with more explicit questions aimed at understanding the role of leadership in the educators' growth to expert level (Table C1, see Appendix C). Additionally, principals working with participating teachers responded to an online survey concerning their provision of psychological needs support to teachers in their employ (Table B2, Appendix B).

Research Question One

In order to address research question one (RQ1), all participating teachers answered questions with respect to their basic psychological needs at work (Table B1, Appendix B). Six items from the Work-related Basic Need Satisfaction Scale (Van den Broeck et al., 2010) were included in the online survey to understand how well their needs are being met in their current work environment. Of the six questions, two addressed how well relatedness needs are being met, two addressed how well competence needs are being met, and two addressed how well autonomy needs are being met. None specifically tackled experiences with leadership or the extent to which psychological needs supports are being provided by leadership, rather, the questions simply inquired about their agreement or disagreement with the six statements addressing how well all three psychological needs are met in their current work setting. Each question had a 5-point Likert scale response set with options ranging from strongly disagree to strongly agree. Reliability analysis in SPSS of the survey items addressing RQ1 (Table B1, Appendix B) yielded a Cronbach's Alpha of .707, indicating acceptable reliability. In addition,

an open-ended interview question was included to capture the more detailed perceptions of teachers with respect to meeting their psychological needs. The open-ended question allowed teachers to anonymously express specific supports they need at work in order grow and develop as education professionals. Since the question was not required in order to submit the survey, ten of the thirteen novice teachers answered the open-ended question, fifty-four of the seventy-three competent teachers answered, and five of the nine expert teachers answered the open-ended question related to RQ1.

Research Question Two

Also included in the initial survey sent to participants were questions modified from Olsen's (2017) Principal Support of Teacher Psychological Needs in order to answer research question two (RQ2). Much like the breakdown of questions addressing RQ1, of the six survey questions intended to address RQ2, two inquired as to competence support, two addressed autonomy support, and two focused on relatedness support. In contrast to the survey questions for RQ1, the questions in this portion of the survey directly concentrated on teachers' experiences with leadership and the ways in which principals supported the three distinct psychological needs of educators in terms of frequency and regularity. Teachers at all career stages responded to the six-items with 5-point Likert scale replies ranging from never to always (Table B2, Appendix B). An open-ended interview question was also included in this portion of the survey, to gain a more comprehensive understanding of educators' beliefs as to leadership's influence on their growth in the field. The open-ended question for RQ2 allowed teachers to convey what they saw as aspects of their principal's support which played a role in their career growth. Corresponding principals also participated in this 5-point Likert scale survey and open-ended interview question, containing items addressing the same support from leadership's

viewpoint (Table B2, Appendix B). Questions aimed at principals were reformatted from Olsen's (2017) measure to capture beliefs about their own provision of needs support for their employees, meaning two addressed their self-report of competence support provision, two addressed their self-report of autonomy support provision, and two addressed their self-report of relatedness support provision. Each of the principals' self-report data was also captured in terms of the frequency with which they provide these psychological needs support for their teachers, ranging from never to always. In contrast to the teachers' open-ended question for RQ2, the reformatted open-ended question for principals was intended to capture their belief as to the area of needs support teachers needed the most moving forward. Reliability analysis in SPSS of the survey items addressing RQ2 yielded a Cronbach's Alpha of .924, indicating excellent reliability. Concerning the open-ended question aimed at answering RQ2, 11 of 13 novice teachers answered the question, 58 of the 73 competent teachers addressed the question, 7 of the 9 expert teachers answered the question, and all 12 principals who completed the survey also answered the open-ended question.

Research Question Three

The third and final research question (RQ3) involves expert teachers alone, and their beliefs vis-a-vis which leadership supports have aided in their growth and development as educators. Individual, in-person interviews were conducted with identified expert teachers containing 15 open-ended questions (Table C1, see Appendix C), some of which were modified from Olsen's (2017) PSTPN items. Based on the responses to the online survey, the researcher selected a subset of five expert teachers to participate in the interview portion of the study from the nine identified experts. Table 6 lists the 9 expert teachers' background characteristics and the pseudonyms for the 5 final teachers who participated in the interviews. The interviews detailed

the ways in which the principals of the aforementioned educators have encouraged their growth and development.

Many of the expert teachers have worked under more than one principal throughout their career; thus, targeted questions have been included for reflection on each career stage regarding the support they were provided throughout their growth and development. The interview protocol was developed with the intention of walking the expert teachers through each phase of their career – novice, competent, expert – as well as a reflection over the course of their entire teaching profession to understand their experiences with leadership in terms of support for competence, autonomy, and relatedness. First, teachers were asked to reflect upon their first year of teaching (novice stage) with targeted questions, one for each of the three psychological needs, as to their needs support provision from their principal. After their novice stage reflection, questions were aimed at teachers' mid-career years (beyond their second year of teaching) and inquiries sought to understand support from principals for these experts during their competent phase for each of the three psychological needs. Next, their expert stage was the focus of discussion, and the interviewees were directed to concentrate on their last two years in the field. Just as the previous two phases, the questions, although different for each career stage, all aimed to answer experts' experiences with leadership for psychological needs support in competence, autonomy, and relatedness. The fourth and final question in each section of the staged interview protocol was aimed at understanding the educator's beliefs as to the direct influence (if any) their principal had on their ability to advance in their career development trajectory. Ultimately, at the conclusion of the interview, the final three questions specifically defined each psychological need and inquired as to how support for the need aided in their development and in what ways the support changed as they progressed in their career. It should be noted that, prior to embarking

on the actual interviews, the interview protocol was piloted on three educators, who then were not eligible to take part in the survey or interviews.

Table 6

Expert Teacher Demographics

Job Title	Years in Public Education	Years in Domain	Multicultural Competence Avg Score	Selected / Willing for Interview	Pseudonym for Interview
School Counselor	7+	3-4	4.5	Yes	Lindsey
Teaching & Learning Specialist	7+	5+	4.571	No	N/A
English Learner Teacher	7+	5+	4.357	Yes	Olivia
Special Education Teacher	7+	5+	4.643	No	N/A
Media Specialist	7+	5+	4.643	Yes	Emily
Social Studies Teacher	7+	5+	4.5	No	N/A
Reading Specialist	7+	5+	4.786	Yes	Tanya
Teaching & Learning Specialist	7+	5+	4.571	No	N/A
Elementary Teacher	7+	5+	4.714	Yes	Katie

Role of the Researcher

The researcher is a white, middle class, female district special education coordinator employed by the suburban district in which the study took place. Previously, the investigator worked at a single school site in the same district as a speech and language pathologist across multiple classrooms and settings at the school. Thus, although the contexts and experiences being shared by interviewees may be familiar to the researcher, this may not necessarily indicate the researcher's interpretations of information provided is accurate. Furthermore, because the study topic is an area of interest for the researcher, weight or importance may be assigned to responses in which the interviewee did not intend to assign. Negative evidence

regarding psychological needs, or thwarting of needs, does not necessarily indicate less importance of the need in terms of the expert's opinion; however, there may be instances in which such interpretations are at risk of being made based upon interview data. Results, as in any study conducted by human researchers, should be interpreted with caution due to potential bias of the people involved.

The role of the researcher in the interviews with expert teachers comprised of: introductions, when necessary; supplemental explanations of the research questions and study purpose; a pre-existing plan for the duration of each interview to last approximately 45-90 minutes, depending upon the need for additional probing or follow-up questions for clarity; and expressed gratitude for participation in the study. Because this study was completed in the district in which the researcher is employed, some participants were well known by the researcher. While professional boundaries are important, colloquial interactions occurred at times due to pre-existing relationships. It should be noted none of the educators who participated in the study were directly supervised by the researcher, as the investigator only supervises classified employees in the district rather than certified. As part of the researcher's exit at the conclusion of each interview, she obtained contact information from participants so the expert teachers can be sent a digital version of the final product upon completion, along with a thank you note and small token of appreciation.

Data Analysis Procedures

A phenomenological approach was the primary methodological approach used in this study to explore the topic of educator expertise and the role of leadership in supporting their growth and development. The focus of the study was to investigate how educators' psychological needs are met, how leadership has shaped their development, and the specific function of

leadership in the advancement to expertise. Phenomenology was the ideal approach for this study, as the purpose was, as described above, primarily to describe and interpret lived experiences, chiefly that of the expert teachers in the study. Quantitative data alone would not have been sufficient in answering any of the research questions, particularly research question three; therefore, qualitative inquiry through individual interviews was necessary.

Analysis was run on the survey responses through SPSS to glean descriptive statistical information to answer research questions one and two. The determination to include principals in this study for research question two was made with the goal of aiding in data triangulation. Regarding Factor Analysis in SPSS, each item correlated highly with all other items and loaded clearly onto a single factor for the survey items in RQ1 (Table B1) as well as the survey items in RQ2 (Table B2). As such, measures were combined into one score and comparisons were run between groups via one-way ANOVA for both sets of survey items, which will be displayed and described in a subsequent section.

The open-ended questions included in the surveys for RQ1 and RQ2 (teacher and principal responses), as well as the interview data from RQ3, were analyzed for content as they relate to the meeting of psychological needs at work and leadership's role in facilitating teacher growth. First the open-ended questions were sorted into respective columns based on the research question being answered. Then, the responses were categorized by the previously described integrated model of expertise – novice, competent, expert (Table 5). Once accurately sorted for qualitative analysis, *in vivo* coding was implemented by evaluating the participant's own language in terms of psychological needs support. Through identification of key words and phrases, commonalities were formed with pattern coding, and logged as a positive or negative response via directional coding (Coding Manual; see Appendix D).

Each interview was digitally recorded, and then transcribed. Although the interviews provided rich and detailed information as to the relationships between principals and expertise development, interviews alone constitute a lack of breadth in the data gathering process due to the difficulty of interpreting the interviewee's meaning from an outside perspective (Kvale, 1996); thus, the interviews were coupled with survey data. A similar approach to the open-ended survey responses was used on the interview transcriptions. The coding manual displayed in Appendix D applies to the open-ended survey responses (teacher and principal data) to answer research questions one and two, as well as the expert interview transcriptions to answer research question three.

CHAPTER FIVE:

RESULTS

The results of the data analyses, to include both quantitative and qualitative evidence, will be elucidated below according to research question, which were as follows:

1. Using the lens of self-determination theory, how well do teachers at varied career stages feel their psychological needs are being met at work?
2. In the opinion of novice, competent, and expert teachers, how have their experiences with leadership shaped their growth and development in the field?
3. In what ways, and to what degree, do identified expert-level teachers recognize the role of leadership in their growth to this exemplary career stage?

Research Question One

Research question one addresses teachers' self-reports about how well their psychological needs were being met at work. The data gathered to answer this question was both quantitative and qualitative, from teachers identified at each level of the three previously described career stages. The quantitative data was obtained from six Likert-scale survey questions selected from the Work-related Basic Need Satisfaction Scale (Van den Broeck et al., 2010); with two questions addressing how well competence needs are met, two questions as to how well autonomy needs are met, and two questions targeting how well relatedness needs are met. An open-ended question was also included in the survey, to allow educators to express supports lacking from leadership at their current place of employ. The results of the quantitative data will be discussed first, followed by the qualitative data from the open-response question (Table B1, Appendix B).

Quantitative Analysis

Teachers across all three career stages responded, on average, with "agree" to all six Likert scale survey questions addressing all three of their psychological needs being met at work (Table 7). Upon a cursory glance, it appears as though the needs being met for each career stage grow as the career stage changes from novice (M = 4.17) to competent (M = 4.41) to expert (M = 4.63). On the five-point Likert scale, this amounts to an average of somewhat agree for novice to nearly agree for expert teachers. However, there was not a statistically significant difference between the expertise groups as demonstrated by one-way ANOVA, $F(2, 91) = 1.878$, $p = .159$). A Tukey post hoc test revealed the following alpha values for between groups: novice and competent teachers (p = .336), competent and expert teachers (p = .501), novice and expert teachers (p = .144). Teachers at all career stages reported competence (M = 4.727) to be their best met psychological need at work, with autonomy (M = 4.208) the least met need overall. Of note, however, is novice teachers in particular identified relatedness to be their least met psychological need at work (3.805), lower than any other psychological need at any other career stage.

Table 7

Teacher Psych Needs Met at Work (RQ1)

	Competence	**Autonomy**	**Relatedness**	**Mean**
Novice (13)	4.54	4.155	3.805	4.1662
Competent (72)	4.75	4.14	4.17	4.4051
Expert (9)	4.89	4.33	4.67	4.6278
Average	**4.727**	**4.208**	**4.215**	

Note. Results of Table B1 Survey Questions

Qualitative Analysis

Qualitative data for question one was obtained through the open response item asking about types of need support teachers felt they still needed from leadership. The results of this analysis is displayed in Table 8. Analysis via directional coding revealed that all responses were negative in directionality, due to the way in which the question was phrased (i.e., for what teachers reported to be *missing* in terms of leadership support for basic psychological needs). In conjunction with the qualitative data results, connections to the quantitative results will also be discussed in this section for each psychological need and by career stage.

First, novice teachers reported competence support, particularly professional growth, to be a psychological need they would have benefited more from with respect to school leadership, with just a single mention of the need for relatedness support, and no mention of needing autonomy support. Statements from novice teachers indicating a need for more competence support on the open-ended question included: 1) "More cultural information and training," 2) "…we are not trained for that," in reference to student behavioral needs, and 3) "New teachers can also benefit from getting to attend more workshops on classroom management."

It is interesting to note that quantitative data revealed novice teachers' reports of relatedness to be their least met need at work, yet the qualitative data revealed only a single mentioned of the need for relatedness support from leadership. It could be surmised that while novice teachers were able to answer the very direct quantitative questions regarding their needs at work, new teachers may not grasp relatedness support quite to the level needed to describe the need in their own words. Autonomy was reported to be a median need met at work, but there was nary a mentioned of the need for autonomy support from leadership in the qualitative data. Like relatedness support, novice teachers may not be wholly aware of the need for autonomy support

in order to verbalize and explain it, or rather, they may flourish in an environment where they are given specific directives as new teachers.

Table 8

Open Response Coding (RQ1)

Please describe, to the best of your ability, additional supports you believe your principal could provide in order to help you grow in your knowledge and skill base as an educator.

	Competence (-)	**Autonomy (-)**	**Relatedness (-)**
Novice	professional growth (6)	trust (0)	collaboration/peer relationships (0)
Novice	feedback/confidence (0)	part of decisions/ buy-in (0)	admin genuine/caring/approachable (1)
Novice			respected/valued (0)
	Competence (-)	**Autonomy (-)**	**Relatedness (-)**
Competent	professional growth (18)	trust (1)	collaboration/peer relationships (7)
Competent	feedback/confidence (9)	part of decisions/ buy-in (5)	admin genuine/caring/approachable (9)
Competent			respected/valued (2)
	Competence (-)	**Autonomy (-)**	**Relatedness (-)**
Expert	professional growth (2)	trust (0)	collaboration/peer relationships (1)
Expert	feedback/confidence (1)	part of decisions/ buy-in (2)	admin genuine/caring/approachable (1)
Expert			respected/valued (2)

Moving to the next career stage, competent teachers also reported professional growth (competence) to be the area of highest need, with a variety of codes indicating the need for relatedness support not far behind, followed by autonomy. Testimonials from competent teachers revealing their support needs on the open-ended survey question included: 1) “Continued professional development that relates to my position,” 2) I would like to be coached in the areas my principal feels like I could improve in,” 3) “More time to collaborate with both general education and special education coworkers,” and 4) “Create a space for open conversation amongst teachers to express authentic needs and problem solve together.” Contrary to the novice

teachers, competent teachers' qualitative responses revealed perceived need for leader support precisely opposite of the order logic would dictate they should be compared to their best met needs. For instance, while the quantitative data revealed competence to be their best met need, the qualitative responses exhibited that same need to be that which they most wanted from leadership. Autonomy was found to be their least met need, yet it is also the needs support mentioned least in their qualitative descriptions about what supports are lacking. It may in fact be that the needs competent teachers feel are most met at work are also the needs most valued by teachers in this career stage.

Lastly, expert teachers reported lacking in needs support for: relatedness, competence, and autonomy in that order. Direct quotes from expert teachers addressing support needs on the open-ended question included: 1) "Teachers need to know they are valued and that their voices are heard," 2) "Presence in the classroom and hallways…important for the principals to interact with the staff and the students…," 3) "Productive staff development is crucial," and 4) "…Sometimes the decisions are very confusing and not in step with what I am used to…If there is a change in district philosophy, that needs to be communicated." While expert teachers felt the need for autonomy was least met in their current work setting according to the quantitative data, they also reported the same psychological need to be the least needed from their leadership in terms of the open responses. Interestingly though, the specific support needed from leadership, according to expert teachers' qualitative statements, is that of buy-in, rather than trust. While the quantitative data reveals relatedness to be the median met need for expert teachers, this type of needs support was also reported to be the most needed from leadership. This difference could be because the quantitative information for relatedness appears to be most associated with

collaboration and peer relationships, while some of the qualitative data revealed the need to feel respected and valued was most lacking in relatedness support from leadership.

Research Question Two

While research question one addressed how well teachers feel their psychological needs were being met at work, research question two specifically sought to understand how teachers' experiences with leadership have shaped their growth by way of psychological needs support from principals. Much like RQ1, the data gathered to answer this question was also both quantitative and qualitative, with questions aimed at teachers identified at each level of the three career stages. The quantitative data to address research question two was collected via six Likert-scale survey questions modified from the Principal Support for Teacher Psychological Needs scale (Olsen, 2017). Again, comparable to research question one, two questions each addressed all three psychological needs, but in terms of how their principal specifically provided the support for each need. Principal quantitative data was obtained for the purposes of triangulation, with the same six Likert-scale questions reformatted to capture their own provision of needs support to teachers in their employ. An open-ended question was also included in the survey for both teachers and principals, allowing teachers to convey what needs support from their principal has most aided in their growth, and principals to express which of the three needs support they believed was necessary to improve upon the most in provision for their teachers. The quantitative information will be described first, followed by the qualitative information from the open-response question addressing this same topic (Table B2, Appendix B).

Quantitative Analysis

Teachers across all stages responded to RQ2 ranging from "about half the time" to "most the time" regarding their principal's support of their psychological needs (Table 9). It appears the

group of competent teachers felt their basic psychological needs were provided for the least (3.9653) in their current work environment, as compared to both novice (4.3969) and expert (4.1856) teachers. However, there was not a statistically significant difference between groups as demonstrated by one-way ANOVA, $F(2,91) = 1.374$, $p = .258$, since the alpha value was more than 0.05. A Tukey post hoc test revealed the following alpha values for between groups: novice and competent teachers ($p = .258$), competent and expert teachers ($p = .770$), novice and expert teachers ($p = .852$).

Table 9

Teacher Experiences with Leadership (RQ2)

	Competence	**Autonomy**	**Relatedness**	**Mean**
Novice (13)	4.425	4.31	4.465	4.3969
Competent (72)	3.985	3.89	4.02	3.9653
Expert (9)	4.22	4.11	4.225	4.1856
Average	**4.21**	**4.10**	**4.237**	

Note. Results of Table B2 Teacher Survey Questions

Teachers at all career stages reported relatedness ($M = 4.237$) to be the psychological need support best provided for by their principals, with autonomy ($M = 4.10$) to be the least provided for need overall. Of note is that novice teachers in particular identified relatedness to be their most provided for psychological need support ($M = 4.47$) from their principals, higher than any other psychological need support at any other career stage.

For contrast, Table 10 presents the principal survey data on what they felt they had provided their teachers. Principals reported providing overall needs support to their teachers across the three domains ranging from “about half the time” to “most the time.” On average, principal reports psychological needs support were the highest for both relatedness items ($M =$

4.58) and lowest for autonomy (M = 4.00), with support of autonomy being lowest especially in trusting their teachers to solve problems (M = 3.83). It is noteworthy that principals reported their most provided for needs support to be relatedness, competence, and autonomy in that order; and teachers reported to feel supported by their experiences with leadership in relatedness, competence, and autonomy in that same order.

Table 10

Principal Provision of Psych Needs Support (RQ2)

Psych Needs Support Survey Question Type	N	Minimum	Maximum	Mean	Std. Deviation
Feedback - Competence	12	4	5	4.17	.389
Confidence - Competence	12	3	5	4.33	.651
Explain Rationale - Autonomy	12	3	5	4.17	.577
Trust Teachers - Autonomy	12	3	5	3.83	.577
Open and Honest - Relatedness	12	4	5	4.58	.515
Caring - Relatedness	12	3	5	4.58	.669

Note. Results of Table B2 Principal Survey Questions

Qualitative Analysis

In terms of open response data addressing RQ2, the results of this analysis are displayed in Tables 11 (teacher) and 12 (principal). Directional coding for all responses from teachers was positive since the question was inquiring as to what aspects of leadership have best fostered teachers' development. The open response data for each type of psychological needs support will be discussed here, progressing through all three career stages. Through analysis of the qualitative data, any connections to the quantitative results will also be depicted for all three psychological needs and each career stage.

Novice teachers reported relatedness support to be the area of leadership support most responsible for their career development, with autonomy support being the least responsible for

their growth. Statements from novice teachers on the open-ended question included: 1) "…I can approach any principal on this campus and express my opinions without fear," 2) "…[principals] share their appreciation for the work we do each day with our students," and 3) "…my principals have so much confidence in me and my teaching ability…" In what may not be surprising, both the quantitative and qualitative results for novice teachers align, concerning their experiences with leadership support, as well as their reports of needs support most responsible for their career development. For novice teachers, relatedness was the most supported need from leadership, as well as the psychological support most responsible for their growth; while autonomy is not only the least supported need, but also the need least responsible for their development.

Table 11

Teacher Open Response Coding (RQ2)

In your opinion, what aspects of your principal's leadership style have best fostered the development of your career trajectory?			
	Competence (+)	**Autonomy (+)**	**Relatedness (+)**
Novice	professional growth (3)	trust (5)	collaboration/peer relationships (0)
Novice	feedback/confidence (4)	part of decisions/ buy-in (0)	admin genuine/caring/approachable (4)
Novice			respected/valued (4)
	Competence (+)	**Autonomy (+)**	**Relatedness (+)**
Competent	professional growth (10)	trust (21)	collaboration/peer relationships (2)
Competent	feedback/confidence (11)	part of decisions/ buy-in (3)	admin genuine/caring/approachable (13)
Competent			respected/valued (5)
	Competence (+)	**Autonomy (+)**	**Relatedness (+)**
Expert	professional growth (0)	trust (3)	collaboration/peer relationships (0)
Expert	feedback/confidence (2)	part of decisions/ buy-in (0)	admin genuine/caring/approachable (2)
Expert			respected/valued (3)

Qualitative data from competent teachers, on the other hand, indicated autonomy (specifically trust) to be the psychological need support to have best fostered their development. Both competence and relatedness, in that order, fell not far behind autonomy in reports from competent teachers' needs support that aided in the trajectory of their career. Some of the information from competent teachers in the open-ended survey question included: 1) "…freedom and trust in my teaching style," 2) "I feel very backed as an educator, so it helps me to feel I can be more creative in my classroom," 3) "Both my site and grade level principal are very supportive and encouraging…ideas for areas I am struggling, covered my classroom so I could observe another teacher, and modeled lessons," and 4) "She is approachable and wants teachers to feel comfortable going into her office to vent and be heard." Quantitative data from competent teachers revealed quite the opposite of the qualitative information in terms of their experiences with leadership: relatedness support, followed by competence, and then autonomy. It may be that while they have had multiple positive relationships with leadership in terms of relatedness support, competent teachers simply believe autonomy to be more responsible for their growth.

Finally, relatedness, specifically in feeling respected and/or valued, is the needs support most indicated responsible for the growth of expert teachers. Both autonomy support and competence support are next, in that order, in expert teachers' statements of career development and growth. Quotes from expert teachers in the open-ended survey question included: 1) "I truly appreciate the validation and respect afforded me by my principal," 2) "I always feel like he trusts me as an educator to make the right decisions," and 3) "…excellent at putting an encouraging idea into your head and letting you know that she believed you could succeed." Quantitative data from expert teachers also substantiate the claims that relatedness is the need most responsible for teachers' growth as well as reflecting teachers' experiences with leadership.

While the qualitative data reflects a reversal in the order of competence and autonomy support as compared to the quantitative information from expert teachers, the differences in the number of qualitative responses accounting for each category are too small to reach any definitive conclusion.

Table 12

Principal Open Response Coding (RQ2)

What characteristics of your leadership style would you alter/improve upon to better facilitate the growth of your educators?		
Competence (-)	**Autonomy (-)**	**Relatedness (-)**
professional growth (1)	trust (2)	collaboration/peer relationships (2)
feedback/confidence (5)	part of decisions/buy-in (1)	admin genuine/caring/approachable (1)
		respected/valued (2)

From the perspective of principals, the open-ended question addressed what aspects of their leadership support they believe to need improvement. Directional coding for all principal responses was negative since the qualitative question was asked in a way to elicit thoughts on improvement. The results of the analysis of these data are presented in Table 12. Principals reported competence, particularly feedback and confidence, to be the psychological need they would improve upon to facilitate teacher growth. Quotes reflecting this expression for improvement in needs support from the principal included: 1) "…I probably need to work on taking the time to voice my affirmations of teachers more frequently," and 2) "A goal is more specific feedback more frequently." The needs support principals mentioned the least was autonomy. Improvement for autonomy support from principal's open-ended question included comments such as: "I believe I could grow in the area of delegating…I would like to still be there a support, but want others to take more leadership." Relatedness, the third and final need, was the median mentioned needs support necessitating improvement from the principals'

perspective. Principal comments related to improving support for relatedness on the qualitative survey question included: 1) “I need to continue working on building relationships with new teachers,” and 2) “I would like to be able to carve more time out of my daily schedule to be in the classroom for observations and interactions.” The primary overlap between principal quantitative and principal qualitative data is that of autonomy. Interestingly, principals reported autonomy to be their least provided need support for teachers, while it is also the least mentioned need support in their desire to improve. One should take note that while teachers reported the psychological needs supports most responsible for their development include relatedness, autonomy, and competence, in that order; principals stated the needs supports they most want to improve upon are competence, relatedness, and then autonomy. Principals appear to place high value on the provision of competence support, while teachers named competence support to be the needs support least responsible for their career growth. Subsequently, the qualitative information form expert teachers will be discussed in order to answer research question three.

Research Question Three

Research question one addressed how well teachers feel their psychological needs are being met at work, research question two sought to understand how teachers’ experiences with leadership have shaped their growth by way of psychological needs support from principals, and research question three examined specifically how expert teachers’ experiences with leadership across their career have aided in their development. In contrast to RQ1 and RQ2, the data collected to answer this question was solely qualitative through individual interviews with identified expert teachers (Table C1, see Appendix C). Due to the nature of the interview protocol and the open-ended questions, interviewee responses were directionally coded in a positive or negative manner depending upon the expert’s response to the question. Thus, many of

the responses displayed in Table 13 indicate both negative and positive directional coding for the same form of needs support. The expert interviews included questions addressing educators' experiences with leadership relating to each of the three psychological needs supports across all three career stage reflections, novice, competent, and expert. At the outset of each career stage reflection set, an additional question was aimed at understanding teachers' perceptions as to their principal's influence on their growth and development. The final questions in the interview protocol reminded teachers as to the previously provided definition of each psychological need and inquired as to how the specific supports for each need aided in their career span development and whether the needs support was adjusted as their career stage changed. Psychological needs support provision will be reviewed through elucidating the experts' reflection of each career stage in terms of the three psychological needs.

As experts reflected upon their first year to two years in education (novice stage), they reported needs support in the positive direction for: competence, relatedness, and autonomy in that order. Emily, an interviewed expert, reported that her principal "gave me a lot of confidence to continue with education" when she was questioned as to specific leadership supports that contributed to her development in her first year as an educator. In the same line of questioning with Olivia, another identified expert, she reported that her principal "just kind of made me believe I could do it and that I was very capable of doing it." Competence supports like this appear to have made quite an impression on expert educators in their novice years. While competence needs support was the most positive in experts' novice teaching years, relatedness was mentioned with the second most frequency in the interviews. For instance, Katie indicated that her principal's presence in the classrooms and hallways during her first year "made us feel like he really cared about us and about the school…he was a big part of our world." Another type

of relatedness support, collaboration, was praised by Tanya in reflecting upon her novice stage needs support when she claimed, “I felt like I had more growth because I was able to collaborate with my team.” Lastly, autonomy support provision was mentioned the least by expert teachers in their novice stage reflection; however, it should be noted it was not absent from their discussions. Katie’s response as to what support in her first year most aided in her development included “He put a lot of trust in me and I- he made me feel like I was an expert teacher already. I felt like he trusted me.”

While expert teachers’ reflection of their novice stage revealed competence to be the psychological need they felt the most support for, current novice teachers’ reports in the first two research questions mentioned feeling most needs support from leadership for relatedness (RQ2), whereas competence was reported to be their best met need at work (RQ1). The negative coding on psychological needs for the novice stage, either due to a lack of support provision or thwarting of needs, reveals autonomy to be mentioned with the most frequency, with both relatedness and competence following. For instance, Tanya made sure to mention that “There was really no outside professional development…like what do you feel like will help in your teaching role to help move you along in your goals…that was never brought up to me,” as she reported there to be no directed professional development provided in her novice stage based upon her interests and desires, only that of the typical required first-year trainings for all teachers. Lindsay echoed the same sentiments concerning negative autonomy support in terms of individualized professional development when she described “It [professional development] would be more…basically just what was district provided for new teachers,” rather than allowing teacher choice and options for learning.

Experts also indicated thwarting of relatedness support during their novice stage as well, with comments like “We didn’t have any mentor teachers” from Olivia’s expert interview. Finally, there were also a few mentions of negative competence needs support from interviewed experts. like Lindsey’s assertion: “I didn’t have any conversations about setting goals for yourself…there wasn’t a lot of direction.” The data from expert teachers regarding their negative needs support in their novice years aligns with current novice teacher reports that autonomy was not only the least needed support from leadership (RQ1), but also the least responsible for their growth (RQ2).

As we consider the expert teachers’ mid-career years, when they were most likely in the competent stage, it should be noted there were no negative directionally coded responses. In terms of needs support, the expert teachers mention autonomy to be the most provided need support during their competent years (particularly trust to make the right decisions), with competence slightly behind, and relatedness mentioned the least for the mid-career years’ reflection. Positive needs support for autonomy from expert’s competent stage reflection included statements indicating trust in teachers to allow for creativity, and trust in their ability to solve problems. Both Emily and Katie, interviewed experts, bolstered these claims with “I felt like, you know, she always trusted us and I think that allowed me to try new things” (Emily) and “She would want you to work it out first, before you go to her” (Katie). Statements such as Katie’s suggested competence was a mid-level needs support from leadership during experts’

Table 13

Expert Teacher Interview Coding (RQ3)

Novice Stage Reflection		
Competence	*Autonomy*	*Relatedness*
professional growth (1+, 1-)	trust (8+)	collaboration/peer relationships (5+, 3-)
feedback/confidence (11+, 2-)	part of decisions/buy-in (1+, 4-)	admin genuine/caring/approachable (0)
		respected/valued (5+)
Competent Stage Reflection		
Competence	*Autonomy*	*Relatedness*
professional growth (6+)	trust (13+)	collaboration/peer relationships (6+)
feedback/confidence (9+)	part of decisions/buy-in (4+)	admin genuine/caring/approachable (2+)
		respected/valued (3+)
Expert Stage Reflection		
Competence	*Autonomy*	*Relatedness*
professional growth (2+)	trust (3+, 1-)	collaboration/peer relationships (1+)
feedback/confidence (8+, 2-)	part of decisions/buy-in (7+, 2-)	admin genuine/caring/approachable (4+, 1-)
		respected/valued (6+, 4-)
Career Span Reflection		
Competence	*Autonomy*	*Relatedness*
professional growth (4+, 1-)	trust (7+)	collaboration/peer relationships (9+, 1-)
feedback/confidence (3+, 1-)	part of decisions/buy-in (5+, 2-)	admin genuine/caring/approachable (2-)
		respected/valued (1+, 3-)
Total		
Competence	*Autonomy*	*Relatedness*
professional growth (13+, 2-)	trust (31+, 1-)	collaboration/peer relationships (21+, 4-)
feedback/confidence (31+, 5-)	part of decisions/buy-in (17+, 8-)	admin genuine/caring/approachable (6+, 3-)
		respected/valued (15+, 7-)

mid-career years, particularly for professional growth: “She would send us to all sorts of workshops…anything she could find that she thought that we would grow as teachers.”

Lastly, relatedness was mentioned with the least frequency from expert reflection of their competent years. Lindsey attributed multiple needs support to be most responsible for her growth during her mid-career years; however, her indication for relatedness was very clear as the first part of her response to this question in that she verbalized “I think the ability to be vulnerable, as in I didn’t have to present a perfect scenario, like I felt like he would be someone that I could say I’m struggling…” Interestingly, expert teacher reflection of their competent years’ support from leadership does align with current competent teachers’ reports of the psychological needs support most responsible for their growth: autonomy, competence, and then relatedness (RQ2). However, current competent teachers also reported the exact opposite direction of needs support truly received from leadership: relatedness, competence, and then autonomy. Another important piece to note is that current competent teachers reported autonomy to be their least met need at work, and for it to be their lowest support need from leadership (RQ1).

In the third portion of the interview with identified experts, these educators were asked to answer questions about psychological needs support from their principals during their current phase (the expert phase). The interviewed teachers’ expert stage reflection revealed relatedness to be the most supported psychological need, with both autonomy and competence only slightly behind in terms of positive support. Both Katie and Tanya pinpointed relatedness support to be essential in their expert phase with responses such as “I could tell her anything that I was thinking and she wasn’t going to judge me” (Katie) and “I felt like she cared about each student individually” (Tanya). Experts clearly asserted the need for administrators to be genuine and caring in their interactions with their teachers. Both autonomy and competence support were also

mentioned with nearly the level of frequency with which relatedness support was discussed for the experts and their interactions with leadership. Emily lauded her principal's support of autonomy and competence in her position with statements such as "I've brought in a lot of ideas and he's allowed me to just freely do that and not micromanage," and "He's pushed me to try new things."

Conversely, expert teachers mentioned relatedness with the most frequency regarding negative coded responses for support, with autonomy next, and then competence. While relatedness is the most positive needs support mentioned by expert teachers, it was also mentioned with the most frequency as to which needs support was thwarted by principals. For instance, in Olivia's experience with her current principal she lamented "I can't necessarily be too honest because it may come back and bite me right in a bad way," as she recalled an interaction in which her principal breached her confidence in front of her peers. Tanya also emphasized that relatedness support is lacking at her current place of employ as an expert, and the other teacher leaders at the site have had to overcome and flourish despite the thwarting of needs. Her description of the current culture included "I think it's just the physical presence is not here either…we've had to step up and become those leaders because they're [teachers] not getting it elsewhere." Additionally, autonomy support was mentioned as a negative support need in these educators' expert phase, like in Lindsey's assertion that "There is definitely more of a micromanagement versus a you prove yourself, go for it…how can I help you fly versus how can I control your flight" as she described the contrasts between leadership at her previous school site with the leadership at her current school.

Experts also described competence support in a negative fashion, but less so as compared to the other two psychological needs. Katie described her previous principal (a very recent

departure from the district) to have thwarted competence support during post-observation conferences and during instances in which Katie had requested assistance or new learning: “A frustrating thing is the principal shouldn’t give feedback on something they didn’t see.” Interview data for reflection of both positive and negative needs support from leadership during these years aligns with the data expert teachers provided via survey data regarding the psychological needs support most responsible for their growth: relatedness, followed by competence and autonomy (RQ2).

Finally, questions aimed at understanding experts’ reflection of psychological needs support over their career span (Table C1, Appendix C) revealed autonomy to be the most positively supported need, with relatedness next, followed by competence. Emily really bolstered claims for high autonomy support as she reflected on her career and her growth to the expert phase with comments like “I had a say in my position and what I was doing with my students,” “…just being trusting I think is the biggest- not expecting us all to be a similar teacher…,” and “I guess they trusted me to- they trusted that my opinions were sound.” Katie endorsed the same opinions as Emily concerning autonomy support provision and how it has impacted her growth to the expert level: “Since I have a say in how I want to teach and because each teacher is different…I would say that’s helped me along in growth.”

Relatedness support was discussed with the second most frequency in terms of needs support responsible for expert teacher growth. In Emily’s discussion about her principal’s support of team building activities, social gatherings and the like, she stated “We all feel like a team.” Lindsey also mentioned relatedness support, but regarding collaborative endeavors in the work environment, with her statement “Our collaborations have really been collaborative…the breaking bread and getting to experience professional development together is huge.”

Competence support garnered the least number of remarks as being responsible for experts' growth within the career span portion, but Katie's assertion helps to paint a clear picture: "If a principal has high standards and is very supportive, then you want to reach that goal." Analyzing survey data in comparison to interview data reveals that although expert teachers' reflection over the career span indicate autonomy, relatedness, and then competence to be their most supported needs, survey data indicates quite the opposite (RQ1). In fact, both current competent and expert teachers' survey information reveal autonomy to be their least met need at work. All three stages of teachers also reported autonomy to be their lowest priority for support from leadership. Additionally, teachers at all three levels described autonomy to be the lowest in terms of need support received from leadership (RQ2). However, competent teachers revealed autonomy to be the psychological need support most responsible for their growth and development.

With respect to negative directional coding of psychological needs support, relatedness had the most occurrences, with both competence and autonomy at only one-third of the occurrences as the former from expert teacher interviews. While Emily previously stated her principals' support of relatedness, she has also described the somewhat negative relatedness support, in that teachers have had to take this role on themselves in some ways. Emily asserts "…things together makes you feel like a sense of- makes you have a sense of community. But, I don't think that was due to something a principal has done. I think that was more how my colleagues- what we've done to make it feel like that." Olivia more fervently depicted the negative relatedness support from her principals' lack of visibility in the school when she claimed "It's so important for principals to build community in their schools…just hurts my heart they [kids] may see her when they come in, but they don't know who she is, she's just another person."

While autonomy and competence were also discussed as negative psychological needs support from principals, as previously mentioned, these were described with much less frequency than negative relatedness support. However, it would be remiss to not remark on Tanya's statements regarding lack of expectations and clarity from leadership: "Sometimes I feel confused here because I don't know the expectations…if I ask a question or what needs to be done, it's a circle around…I never get a straight answer." In terms of connections to the previously elucidated data, relatedness was reported to be the most needed support from leadership for expert teachers (RQ1), as well as the highest level of support provided from leadership at all three career stages (RQ2). Both novice and expert teachers indicated relatedness to be the most responsible for their growth, while competent teachers reported it to be the least responsible for their development (RQ2).

Finally, through analyzing total psychological needs support, expert teachers reveal autonomy (specifically, trust in their teaching and decision-making capabilities), and competence (feedback/confidence) to be the most supported needs in their experiences with leadership. Their experiences with leadership that resulted in negative psychological needs support, either through absence of support or thwarting needs, was reported to be relatedness (in particular, feeling respected/valued). Further analysis and discussion follow in the final chapter.

CHAPTER SIX:

DISCUSSION, IMPLICATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

The aim of this study was to explore, through the lens of self-determination theory (SDT), teacher experiences with leadership support through the various career stages – novice, competent, and expert. This broad purpose was addressed in two specific ways: 1) by advancing theory on leadership for career-staged teacher learning and development through the lens of self-determination theory; and 2) to empirically investigate, through eliciting the perspectives of current novice, competent, and expert teachers, how their experiences with school leadership have fostered their growth and development. The research questions that framed the study were:

1. Using the lens of self-determination theory, how well do teachers at varied career stages feel their psychological needs are being met at work?
2. In the opinion of novice, competent, and expert teachers, how have their experiences with leadership shaped their growth and development in the field?
3. In what ways, and to what degree, do identified expert-level teachers recognize the role of leadership in their growth to this exemplary career stage?

Summary and discussion of the results will be discussed in the following section, organized by research question in terms of quantitative and qualitative analysis by career stage. Immediately following, the implications of the findings for both policy and practice in K-12 education will be discussed along with the study limitations and recommendations for future research.

Research Question One Summary

The quantitative data from RQ1 essentially answers the question as to how satisfied teachers are at work, specifically how well each psychological need is being met at work based on teachers' self-reports. Moreover, the qualitative evidence for RQ1 demonstrates teachers'

perception as to what specific needs support would have improved their growth and development in the education field. One could suppose that the qualitative component in this area of study might actually pinpoint what type of leadership support teachers value and/or believe to have worth. A summary table for both the quantitative and qualitative information from question one, according to career stage and psychological need, is presented in Table 14.

Table 14

Research Question One Summary of Results

	Best Met Need at Work	**Median Met Need at Work**	**Least Met Need at Work**
Novice	Competence	Autonomy	Relatedness
	High Need – More Support	**Median Need – More Support**	**Low Need – More Support**
Novice	Competence	Relatedness	Autonomy

	Best Met Need at Work	**Median Met Need at Work**	**Least Met Need at Work**
Competent	Competence	Relatedness	Autonomy
	High Need – More Support	**Median Need – More Support**	**Low Need – More Support**
Competent	Competence	Relatedness	Autonomy

	Best Met Need at Work	**Median Met Need at Work**	**Least Met Need at Work**
Expert	Competence	Relatedness	Autonomy
	High Need – More Support	**Median Need – More Support**	**Low Need – More Support**
Expert	Relatedness	Competence	Autonomy

Novice teachers indicated the following to be their best met psychological needs at work: competence, autonomy, and relatedness, in that order. On the other hand, their qualitative data revealed their most needed support from principals to continue growth were competence,

relatedness, and then autonomy. Despite reporting competence to be their best met need at work, they also stated the psychological needs support they needed more of from their leadership was competence. According to Berliner (1994), novice teachers frequently depend on structured rules to function and may have minimal independence; thus, the reported decreased need for autonomy support. Furthermore, since there is scant literature on autonomy support for novice teachers, one can surmise this psychological need to be less important at this career stage than are competence and relatedness to the novice educator. Beginning, novice-stage teachers may also simply have narrow attention on avenues through which to grow and develop, focusing on the more obvious straightforward type of support, such as professional development. This thought process could be indicative of the novice viewpoint favoring the need for competence support from leadership, rather than autonomy.

Competent teachers' best met needs at work, according to their quantitative self-reports, were competence, relatedness, and autonomy, only slightly different than their novice counterparts. What might come as a surprise to some is competent teachers also reported the same three psychological needs support, in the same order, to be their most considerable need lacking from leadership (competence, relatedness, then autonomy). Part of the needs assessment from competent teachers (i.e. competent being best met, yet also being most needed) could be that teachers at this stage are beginning to make connections (Berliner, 1994), and may comprehend and value the various psychological needs support. Although there is not a lot of existing literature on psychological needs and competent stage teachers to make a connection to, these results may be able to provide some guidance and a cursory start to this effort.

Like the competent teachers before them, expert teachers' data revealed the following in regard to their best met psychological needs at work: competence, relatedness, then autonomy.

Their assertion of needs support lacking from administration includes the most mentions for relatedness support, then competence support, and lastly, the need support mentioned the least was autonomy. Experts' competence needs may be best met at work simply due to the nature of them being expert teachers, as those in this career stage have the know-how on ways to access information to improve their knowledge and growth (Sternberg & Horvath, 1995). Conversely, their reported lack of relatedness support may be more so akin to not feeling respected and/or valued, rather than the specific collaborative endeavors, since that was the coding value reported to be most lacking in the expert teacher qualitative data. As Niemiec and Ryan (2009) assert, one way to provide relatedness support is through showing care and respect, something that appears to be valued by the expert level teachers. Although expert teachers reported autonomy to be their worst met at work, as well as their lowest priority in needs lacking from leadership, there may be a distinct difference between the two codes for autonomy (trust vs. buy-in). In terms of the expert interview data, more negative coding was associated with buy-in, rather than trust. It can be surmised that experts place worth on being part of decisions, which also falls in line with wanting to be respected and valued.

Research question one addressed what needs are met at work and what needs are missing in terms of the established culture from leadership. Teachers at all stages report competence to be their best met need and autonomy the lowest priority need, which is interesting to note there are not more differences between career stage needs. The most glaring difference noted is that of relatedness between novice and expert teachers – novice teachers reported it to be their least met need but do not prioritize it as the most needed, while expert teachers reported relatedness to be their median met need and the highest priority for more support. As previously stated, numerous studies acknowledge that the needs of a young teacher are simply different than that of an

experienced teacher (Appova, 2009; Cameron et al., 2013; Flores, 2005; Grangeat & Gray, 2007; Patrick et al., 2010; Richter et al., 2011). This may help explain the disparity, although not statistically significant, between the quantitative results for novice and expert teachers regarding how well their needs are met at work.

Research Question Two Summary

The quantitative data from RQ2 attempted to answer the question as to what needs supports are provided from leadership based on teachers' experiences, and what needs support leadership perceives to be their best provision for teachers in their employ. Additionally, the qualitative evidence for RQ2 demonstrates teachers' perceptions as to which psychological need is most responsible for their growth and development, and what needs support principals believe they most need to improve upon. Summary data for both the quantitative and qualitative information, according to career stage and psychological need as well as principal self-report, is summarized in Table 15.

Novice teachers' quantitative and qualitative data aligned perfectly in terms of best supported psychological need from leadership and the psychological need support most responsible for their growth. Of note is that novice teachers' quantitative data revealed they are the most supported in their experiences with leadership as compared to other career stages, although it was not statistically significant between groups. The reported order of psychological needs support and that most responsible for their development included the following for novice teachers: relatedness, competence, and then autonomy. As Kapadia et al. (2007) state, relatedness support helps teachers to develop competence, and collaboration with peers also increases the possibility of teacher retention. The provision of this level of relatedness support from principals at this stage may be two-fold: to decrease the likelihood of teacher turnover since

it is a risk for new teachers entering the field, and to help delegate the responsibility away from the principal being the primary/only support for new teachers by way of setting up formal mentorships and informal peer collaboration.

Table 15

Research Question Two Summary of Results

	High Needs Support	**Median Needs Support**	**Low Needs Support**
Novice	Relatedness	Competence	Autonomy
	Most Responsible - Growth	**Median Responsible - Growth**	**Least Responsible - Growth**
Novice	Relatedness	Competence	Autonomy

	High Needs Support	**Median Needs Support**	**Low Needs Support**
Competent	Relatedness	Competence	Autonomy
	Most Responsible - Growth	**Median Responsible - Growth**	**Least Responsible - Growth**
Competent	Autonomy	Competence	Relatedness

	High Needs Support	**Median Needs Support**	**Low Needs Support**
Expert	Relatedness	Competence	Autonomy
	Most Responsible - Growth	**Median Responsible - Growth**	**Least Responsible - Growth**
Expert	Relatedness	Autonomy	Competence

	High Support Provision	**Median Support Provision**	**Low Support Provision**
Principal	Relatedness	Competence	Autonomy
	Most Need to Improve	**Median Need to Improve**	**Least Need to Improve**
Principal	Competence	Relatedness	Autonomy

Furthermore, although competence was novice teachers' median needs support in their experiences with leadership and the needs support determined to be most responsible for their growth, competence can only be achieved through specific supports and structure from

leadership. Self-efficacy and high expectations are possible, even for new teachers, as long as teachers are provided with specific, attainable objectives (Bandura, 1986). Much like the data found in RQ1, autonomy support was found to be the least important to novice teachers, not only in their experiences with leadership, but also considered to be the least responsible for their growth. This appears to substantiate the findings from previous literature and the data from RQ1, that novice teachers need little autonomy support, as the other two psychological needs are more vital provisions for inexperienced and new educators.

Progressing to the next career stage, competent teachers' best supported psychological needs were also relatedness, competence, and then autonomy, much like their novice counterparts. Unlike the novice teachers before them however, the needs asserted to be most responsible for competent teachers' growth is the exact opposite: autonomy, competence, and then relatedness. It should be mentioned competent teachers' experiences with leadership were reported to be the most negative as compared to other career stages, particularly as compared to novice teachers' experiences, although not statistically significant. Despite competent teachers' leadership experiences being less positive than teachers in the other phases, Kyndt et al. (2016, p. 1115) declared the competent phase to be "the time period when energy, commitment, ambition, and self-confidence are at their highest." This research assertion may help explain why autonomy and competence are lauded as most responsible for the development of competent teachers. Furthermore, competent teachers often use experimentation to improve and expand upon their practice (Huberman, 1989), in which autonomy support is a necessity to allow for this level of creativity. Although competent teachers reported relatedness to be their most positive support from leadership, they also thought it was the least responsible for their growth. Competent teachers may not fully realize the extent to which relatedness provides for growth, even though

research has found learning to occur through socialization and community (Lave & Wenger, 1991).

The final career stage, expert, also found the best supported needs to be relatedness, competence, and autonomy in that order, just like the previous two career stages. They also determined relatedness to be the most responsible for their growth and development in the field, with competence named as the least responsible. Although competence is considered least responsible and only mid-level support received from leadership in this area, it may simply be that the support and responsibility of both autonomy and relatedness automatically increased competence of expert educators. When leadership respects both the independence and interdependence of teachers, it translates to improved learning (Clement & Vandenberghe, 2000, 2001). Of note is that while the order of needs support in experiences with leadership was the same for all three career stages, the determination of what psychological needs are most responsible for growth was more closely aligned for novice and experts than it was for competent teachers. The primary difference is that expert teachers determined autonomy to be the median need responsible for their growth rather than competence, like the novice stage educators reported. The experts' claims are supported by research from both Supovitz, Sirinides and May (2010) as well as Wahlstrom and Louis (2008), who asserted that a vital step in establishing a community of learners includes the leader's ability to foster trust between themselves and staff as well as among peers. Essentially, in order to develop an organizational climate truly supportive of relatedness, provision of autonomy support is a necessity.

Finally, discussion of the principal quantitative and qualitative information will commence to examine triangulation of the previously elucidated teacher data. The quantitative data from principal survey results perfectly aligned with all career stage teachers' reports in that

their best met needs are relatedness, competence, then autonomy, and principals' self-report of needs provision was also relatedness, competence, and autonomy in the same order. In direct contrast to teachers' qualitative reports of the psychological needs supports most responsible for their growth, principals' open-ended responses revealed competence to be the psychological need support they most need to improve upon. Not a single educator career stage asserted competence to be the psychological need support most responsible for their development. In fact, novice and expert educators found relatedness to be their most responsible need, while competent teachers reported autonomy to be the psychological need responsible for their career development. In the shared instructional leadership research by Marks and Printy (2003, p. 373), the authors claim that pure instructional leadership is unnecessary when teachers are competent and motivated for continuous improvement. In light of this research base, principals may place high value on competence support, despite other research affirming competence support to be delivered through the provision of the other two needs, relatedness and autonomy. In connection with the aforementioned claim, when new concepts or strategies are too difficult, teacher self-perception of competence can be diminished, so Tschannen-Moran and McMaster (2009) state these beliefs can be corrected by way of additional support during this period through nurturing psych needs. Effectively, direct competence support is provided by way of both autonomy and relatedness support.

It should not be surprising that relatedness was considered the most supported need in teachers' experiences with leadership across all career stages, as well as principal reports of which psychological need they provide the most support for due to the research findings about the importance of direct support for this need. When educators are placed in isolated teaching situations in which there are minimal or chances for peer collaboration, growth and development

can be hindered. In fact, Lohman (2006) asserts that teachers' motivation for learning is low when physical location is far from colleagues; thus, relatedness support in experiences with leadership is vital. The subsequent section will describe and interpret expert qualitative interview data utilized to answer research question three.

Research Question Three Summary

The third and final area of interest, research question three, aimed to understand expert teachers' experiences with leadership and the specific avenues and extent to which those experiences shaped their development to the expert level. This section will progress through expert teachers' reflections on each stage of their career: novice, competent, expert, as well as an examination of the specific psychological needs support provision over the span of their career As the paper advances through the expert descriptions of each career stage, the discussion will include a comparison to the data from current teachers in that same phase of their careers. Findings from investigation of this research question are summarized in Table 16.

Upon questioning experts about the period in their career as novices, the first 1-2 years, they revealed positive psychological needs support from their principals at the time for competence, relatedness, and autonomy in that order. This data *could* be considered a slight contradiction to current novice teacher reports of which needs support they require more of from their administration (indicating it could be lacking), which are competence, relatedness, and then autonomy. Though competence was reported to be the most needed for current novice teachers, they also reported competence to be their best met need at work, which supports expert reports of

Table 16

Research Question Three Summary of Results

	Most Positive Needs Support	**Median Positive Needs Support**	**Least Positive Needs Support**
Novice Reflection	Competence	Relatedness	Autonomy
	High Negative Needs Support	**Median Negative Needs Support**	**Low Negative Needs Support**
Novice Reflection	Autonomy	Relatedness & Competence	-

	Most Positive Needs Support	**Median Positive Needs Support**	**Least Positive Needs Support**
Competent Reflection	Autonomy	Competence	Relatedness
	High Negative Needs Support	**Median Negative Needs Support**	**Low Negative Needs Support**
Competent Reflection	-	-	-

	Most Positive Needs Support	**Median Positive Needs Support**	**Least Positive Needs Support**
Expert Reflection	Relatedness	Competence & Autonomy	-
	High Negative Needs Support	**Median Negative Needs Support**	**Low Negative Needs Support**
Expert Reflection	Relatedness	Autonomy	Competence

	Most Positive Needs Support	**Median Positive Needs Support**	**Least Positive Needs Support**
Career Span Reflection	Autonomy	Relatedness	Competence
	High Negative Needs Support	**Median Negative Needs Support**	**Low Negative Needs Support**
Career Span Reflection	Relatedness	Autonomy & Competence	-

their novice phase in terms of positive needs support. Thinking back to their novice stage, expert teachers also testified to negative psychological needs support, either due to direct thwarting of needs or simply lack of support, for autonomy and then to the same extent, relatedness and competence. The data surrounding autonomy in the novice stage reflection for experts also aligns with current novice assertions about autonomy in that it was not only the lowest needs support received, but also the least responsible for their growth and the lowest priority need for them from their principals. It may in fact be that as experts reflect on their beginning years, they recognize autonomy support was thwarted, which appeared to be consistent in the current novice data as well, and a low level of autonomy support may be necessary for novice teachers since they tend to require a strict set of rules to function at the commencement of their educational career.

Expert teachers' competent years were defined for them as their mid-career years during the interview process, essentially anything beyond their first two years in education up until their most recent few years as an expert. In thinking back to their mid-career years, experts reported positive experiences with leadership for autonomy, competence, and then relatedness supports. This data is substantiated by current competent teacher data in terms of which needs are most responsible for their growth (autonomy, competence, relatedness). It should come as no surprise that positive experiences with leadership may be responsible for career trajectory development. However, current competent teachers also asserted the exact opposite in terms of their positive experiences with leadership (relatedness, competence, and then autonomy) despite the reports of which needs supports are most responsible for their development. The possibilities for the inconsistencies in competent teacher data was previously elucidated in the competent discussion section for RQ2. Unlike expert reflection on their novice phase, expert teachers' reports of

negative psychological needs support during their competent years were revealing in that there were no indications of thwarting of psychological needs from leadership. An absence of negative needs support during this time may be because it is considered the career phase in which teachers either continue and commit to the profession or simply leave education to explore other careers (Rolls & Plauborg, 2009). Since this data was attained from current experts, it is apparent these teachers chose to commit the profession and continue in education, and thus, simply did not have negative psychological needs experiences with leadership during their competent career stage. As previously stated, this commit or leave juncture may also be why there is such limited research on basic psychological needs support for competent stage teachers.

Expert teachers were also asked to illustrate their experiences with leadership during their current and final stage, as an expert. Their positive experiences in this current stage, according to the interview data, are relatedness, and then to the same extent competence and autonomy. This interview finding supported the other expert data from surveys that indicated relatedness, competence, and then autonomy to be their highest need for support as well as their most positive needs support provision. These corresponding results suggest the qualitative findings from the five interviewed experts substantiates the quantitative and qualitive findings from their own surveys and the survey results of the other identified four experts' who were not selected for interviews. As much of the previously demonstrated research has suggested, informal learning is more likely to occur in environments that support and facilitate teacher collaboration (Flores, 2004), suggesting oftentimes relatedness support will lead to competence.

Curiously, experts recounted negative experiences with psychological needs support was relatedness, autonomy, and finally competence support. A possible explanation for such positive relatedness support while simultaneously high levels of negative relatedness support could be

that this particular psychological need holds high value in the minds of expert teachers to the extent that all types of relatedness support (positive or negative) will be identified and engrained into their memories as to their experiences with leadership. Likewise, it should be noted that four of the five negative interview codes for relatedness support came from three different teachers working at a single school site in the district. These three teachers had previously been employed at other schools in the district, but now work under the same leadership team. It may be that the negative relatedness support is skewed further in that direction than would have been otherwise had it not been for the climate portrayed at this individual school site.

Lastly, interview questions were aimed at understanding expert teachers' overall experiences with leadership across their career span relating to psychological needs support. In terms of positive experiences, experts asserted autonomy, relatedness, and then competence to be their most positively supported psychological needs. Their career span claims are not supported by any of the single career stage findings from the interview data. The results from this particular portion of the interview elicited multiple positive comments about autonomy when directly provided with the definition of the term from SDT and questioned about the support provision of this need. However, it should be mentioned that both relatedness and competence were not far behind in the count of positive interview codes for needs support from leadership. It may be that these pointed questions, including the definitions of the terms and queries to prompt detailed responses for psychological needs, essentially forced the expert teachers to reflect back upon specific examples across their career more so than the previous questions in the interview protocol had before. Pertaining to negative needs support over the span of their career, expert teachers report relatedness, and then to the same degree, autonomy and competence. Again, much of the negative codes for relatedness support happen to come from teachers currently

employed at the previously mentioned school site in the district, which may result in a distortion of this finding, even as they attempt to contemplate across their entire career span.

The purpose of research question three was to understand the degree to which, if at all, expert teachers' experiences with leadership aided in their career development to the pinnacle phase of expert. As these adept and skillful professionals reflected upon their career, relatedness and autonomy were mentioned with the most frequency both in terms of positive and negative needs support in all career stages. Likely not surprising, only one instance of competence was mentioned as either the most positive or most negative support received, and only during their novice years. Although portions of the data from expert interviews are somewhat contradictory to the findings from teachers in the same current stage of development as expert reflection, overall, the findings from RQ3 do substantiate the importance of providing direct relatedness and autonomy support to develop competence. Succeeding, the paper will explore implications for both policy and practice, limitations of the current study, as well as recommended directions for potential future research in this same subject matter.

Implications for Policy and Practice

The data and analysis in this investigation were complex, and any reader might lose the forest for the trees. In this section, a discussion of the implications of this research will allow us to take a larger view of the findings and connect them back to the work of teachers and leaders in a school, understanding that this was a study of a single district in a single state in the U.S. and might not be generalizable. While the quantitative findings of this study may not have yielded statistically significant results, there are still some suggestions school policy makers and administration should consider. Furthermore, the qualitative components of this study did

provide rich information as to the various career stage needs, experts' experiences, as well as principals' plans and desire to improve.

In terms of educators' best met needs at work, there were no significant differences found between career stages, suggesting that teachers in all phases of their career development feel similar needs satisfaction for competence in their current place of employ. However, in terms of prioritizing additional needs support, expert teachers indicated relatedness to be their highest priority need for further support from leadership. On the other hand, novices asserted relatedness to be their least met need, yet did not prioritize it as their most needed support from leadership. Based on these findings, it suggests that leadership ensure that relatedness support be provided to expert teachers in particular. Relatedness, specifically feeling valued and/or respected, should be a top concern for school leadership; of which this could be achieved through the direct autonomy provision of buy-in for expert teachers. Unfortunately, in public school settings, expert teachers' needs may not be prioritized once they have reached the level of "expert" in their career and schools, and the needs of other teachers may take precedence as they are continuing to develop. Yet one way to address both concerns may be to better connect expert teachers and novice teachers through mentorship. Mentorship would allow expert teachers to build connections with others in the school and also provide novice teachers with access to expertise to help them in the classroom.

In considering educators' experiences with leadership, their perception of needs support from leadership was perfectly aligned to principal's own perceptions of those needs they felt they were most effective in supporting (relatedness, competence, and then autonomy). However, principals certainly seem to place value on competence, stating it to be the most important need to improve upon for provision, though not a single career stage group stated competence to be

most responsible for their growth. As previously asserted in this document, indirect competence support may often be provided for by way of direct support for relatedness and autonomy. It should be noted that although novice teacher data revealed them to feel the most supported in their experiences with leadership, and competent teacher data revealed them to be the least supported, these results were not statistically significant. Even with this in mind, there was little mention of autonomy support for novice teachers, and as such, this need may be of little importance to novice staged educators. Public schools should take note that relatedness and autonomy were reported to be most responsible for all career stage teachers' growth and development in the field. Thus, from a principal's perspective, needs support should be specific and deliberate. Some things that principals can do to provide teachers support in these two areas include: be an approachable and caring principal, respect and value teachers, their voice and their contributions, trust staff to solve problems, and include teachers in decisions.

Expert staged teachers reflections upon their career revealed the following: they required little autonomy support in their novice phase; experienced minimal negative needs support from principals during their competent stage, though autonomy was most responsible for their growth; relatedness support was highly valued during their expert years (both their most positive and most negative needs support in their expert years); finally, relatedness and autonomy were mentioned with the most frequency both in terms of positive and negative needs support throughout their career span.

Since overall competence was considered the best met need across all career stages, an increase in the *direct* support for this psychological need is likely unnecessary. Relatedness provision should be prioritized for expert teachers by way of showing respect and clearly valuing their expertise, as well as through autonomy support with inclusion of educators in decisions

being made. Furthermore, competent teachers require high autonomy support as well, for both buy-in and trusting teachers to not only solve problems, but also in teaching their students the way in which they have determined to best meet student needs. Novice teachers require low autonomy support, but again, relatedness is a priority in ensuring the principal is caring, open, and approachable. In light of the findings of this study, principals might consider adjusting their needs support based on career stage as follows: less emphasis on autonomy support for novice teachers, high emphasis on autonomy needs support during the mid-career years, and high emphasis on relatedness support for expert teachers. This suggestion does not mean provision for the other needs are not as vital, simply that, along the purposes of this study, these needs are better differentiated and prioritized across career stages according to expert teachers' experiences with leadership. Yet another consideration might be for principals to first survey their teachers in a similar manner to this study for the purpose of taking the pulse of current needs support within the building and opportunities for improvement.

Study Limitations and Future Research

As with any study, a frank discussion of study limitations is important. This dissertation was conducted in a medium-sized suburban district consisting of a ~50% White student population, ~15% Asian student population, with the other demographics including American Indian, Hispanic, and Black (~12% for each), as well as ~40% of students in the district receiving Free & Reduced Lunch. It may be that these findings cannot be generalized to other districts, such as those differentiated by setting, size, and demographic variation from the district studied. Although the responses for the quantitative survey data accounted for nearly 12% of the district's certified employees, it still remains to be seen if there was any appreciable selection bias with respect to who decided to fill out a survey and whether this compromised the

representativeness of the study sample. Furthermore, even with around 100 teachers participating, this smaller size sample likely affected the statistical power present in the few quantitative analyses. With these limitations, any generalizability is likely not appropriate.

As previously discussed, many of the negative directional codings on relatedness from the five interviewed expert teachers were from three specific employees at a single school site in the district, which may have affected the qualitative findings addressing RQ3. It remains to be seen whether the organizational culture at this particular school is truly representative of these experts' negative experiences of psychological needs support, if it is simply from their own comparisons to their previous work at another site in the district (they were moved to this site when it opened as a new school and the district was rezoned), or what the exact nature of these findings reveal in terms of negative relatedness support for expert teachers in this district. Furthermore, it may be difficult for teachers, even experts, to not only grasp, but also describe the psychological needs support they require from leadership to experience continued improvement and growth.

In order to resolve most of these study limitations, future directions might include extending the study over multiple districts with varying settings (rural vs. urban, large vs. small, more students of color, varied levels of students in poverty, etc.). If one were to undertake this study, or one like it across other districts, then the resultant findings and recommendations may be more easily generalized to all K-12 settings. The inclusion of more and larger sized districts would increase the number of experiences shared by teachers and potentially allow for analysis of responses from more teachers in each of the three career stages. There are typically fewer expert teachers to interview and so a larger sample would allow for a more representative perspective on this career stage. Furthermore, extending beyond a suburban district in the

Midwest would be prudent in terms of widespread generalization of findings and potential implications for revisions to K-12 policies surrounding items related to teacher induction, state-mandated professional development requirements, evaluations, mentorships, supervision, etc.

These factors may also be relevant in studies exploring teachers from districts with more students of color, since there is evidence many educators in K-12 settings are white. While knowledging that CRT is for everyone not just students of color, more emphasis on the importance of teachers being culturally responsive in their teaching is even more so critical in districts with high proportions of students of color. This may also mark a shift in how experts are defined in settings where a higher percentage of students in the district are of a different racial or ethnic background than their teachers.

Finally, concerning extending to other districts, consideration should be given to schools with a higher percentage of those receiving Free & Reduced Lunch, as schools with more students in poverty are typically not able to secure as much funding from property tax revenue as those districts with a lower poverty rate. When districts are poorly funded, this can hamper their ability to adequately support teachers in professional growth and may also play a role in psychological needs thwarting for teachers which is related to stress and burnout.

Akin to the previous discussion, other directions future studies might consider taking is one directed at understanding the relationships between adequate levels of individualized psychological needs support based on career stage needs and the rate of retention/commitment to the profession. While, as previously mentioned there is minimal literature on tailoring psychological needs support for varied career stages, it would be interesting to further explore these needs and how they tie into educator commitment and retention in the field. An undertaking such as this may require an adjustment to the survey and interview protocols in

terms of the way in which questions are worded and aims of the study. Further, since it is difficult for educators to "name" supports they may be missing, this need may also be met by a revision of questionnaire items in a new research study.

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APPENDIX A: CAREER STAGE CATEGORIZATION SURVEY QUESTIONS

Table A1

Participant Selection Survey

Question	Response Type
1) How many years' experience do you have working in public schools?	Multiple Choice with Selection of Ranges (0-1, 2-6, 7+)
2) How many years have you been employed in your current position at work?	Multiple Choice with Selection of Ranges (0-2, 3-4, 5+)
3) Please list any professional memberships or special certifications you hold.	Open-Ended Paragraph Response
4) What was the overall ranking on your most recent TLE?	Multiple Choice with Selection of Ranges (< 2.9, 3.0-3.9, 4.0+)
5) Have you been *nominated* for educationally relevant honors or awards requiring peer recommendation (i.e. Teacher of the Year)?	Binary Yes / No
6) Have you *won* any educationally relevant honors or awards requiring peer recommendation (i.e. Teacher of the Year)?	Binary Yes / No
7) If you answered yes to Question 6 above, please list the honors/awards you have won while working in the schools.	Open-Ended Paragraph Response

APPENDIX A: CAREER STAGE CATEGORIZATION SURVEY QUESTIONS

Table A2

Participant Selection Survey for Multicultural Competence

Respond to the following statements based on your beliefs as an educator. (1 –Strongly disagree, 2 – Somewhat disagree, 3 – Neither agree nor disagree, 4 – Somewhat agree, 5 – Strongly agree)
1) Revising instructional material to include a better representation of the students' cultural group will foster positive self-images.
2) Students will develop an appreciation for their culture when they are taught about the contributions their culture has made over time.
3) The likelihood of student-teacher misunderstandings decreases when my students' cultural background is understood.
4) Students' self-esteem can be enhanced when their cultural background is valued by the teacher.
5) Helping students from diverse cultural backgrounds succeed in school will increase their confidence in their academic ability.
6) Students' academic achievement will increase when they are provided with unbiased access to the necessary learning resources.
7) Using culturally familiar examples will make learning new concepts easier.
8) I am able to infuse the curriculum with the culture of students represented in the classroom.
9) I am able to develop a repertoire of instructional examples that are culturally familiar to students to serve as a scaffold for learning.
10) I am able to assess culturally diverse students' readiness, intellectual and academic strengths and weaknesses, and development needs.
11) I am able to communicate with culturally diverse students and their parents/guardians.
12) I am able to communicate expectations of success to culturally diverse students.
13) I am able to establish expectations for appropriate classroom behavior in considering students' cultural backgrounds to maintain an environment conducive to learning.
14) I am able to create a warm, supportive, safe, and secure classroom environment for culturally diverse students.

Note. Items 1-7 selected from portions of the Culturally Responsive Teaching Outcomes Expectancy Scale (Siwatu, 2007). Items 8-14 selected from portions of the Culturally Responsive Teacher Preparedness Scale (Hsiao, 2015),

APPENDIX B: SURVEY QUESTIONS

Table B1

Work-related Basic Need Satisfaction Scale (RQ1)

Respond to the following statements based on your experiences at your current place of employment. (1 – Strongly disagree, 2 – Somewhat disagree, 3 – Neither agree nor disagree, 4 – Somewhat agree, 5 – Strongly agree)
1) At work, I can talk with people about things that really matter to me.
2) Some people I work with are close friends of mine.
3) I feel competent at my job.
4) I am good at the things I do in my job.
5) The tasks I have to do at work are in line with what I really want to do.
6) I feel free to do my job the way I think it could best be done.
Respond to the following open-ended question based on your experiences at your current place of employment.
7) Please describe, to the best of your ability, additional supports you believe your principal could provide in order to help you grow in your knowledge and skill base as an educator.

Note. Items 1-6 selected from Van den Broeck et al. (2010).

APPENDIX B: SURVEY QUESTIONS

Table B2

Principal Support of Teacher Psychological Needs (RQ2)

Teacher Question Stems *In reflecting upon my interactions and conversations with my principal, I feel (s)he…* Principal Question Stems *(In reflecting upon my behavior as a school leader, I believe my actions have shown I…)* (1 – Never, 2 – Sometimes, 3 – About half the time, 4 – Most of the time, 5 – Always)
1) provides valuable feedback that helps me improve my teaching. (provide feedback that improves the teaching of educators.)
2) instills confidence in my ability to do my job well. (instill confidence in teachers' abilities.)
3) explains the rationale behind decisions that are made. (explain the rationale behind decisions I make.)
4) trusts me to solve problems in the way I see fit. (trust teachers to solve their own problems.)
5) is someone I am able to be open with at school. (am someone teachers can be open and honest with at school.)
6) cares about me as a person. (care about my employees as people.)
Respond to the following open-ended question based on your experiences at your current place of employment.
7) In your opinion, what aspects of your principal's leadership style have best fostered the development of your career trajectory? (What characteristics of your leadership style would you alter/improve upon to better facilitate the growth of your educators?)

Note. Teacher question stems 1-6 from Olsen (2017) PSTPN.

APPENDIX C: INTERVIEW PROTOCOL

Table C1

Interview Protocol for Expert Teachers (RQ3)

Novice Stage Reflection *In reflecting upon your first year of teaching…*
1) How did your principal coordinate mastery experiences and set achievable goals for your teaching? (c)
2) What professional development opportunities were you directed towards? (a)
3) How did your principal establish a mentor teacher arrangement and aid in maintaining that relationship? (r)
4) How do you believe your principal's specific leadership support in your first year aided in your development as an educator?
Competent Stage Reflection *In reflecting upon your mid-career years…*
5) How did your principal encourage your continued professional growth, and through what avenues? (c)
6) In what ways did your principal instill trust and confidence in your ability to solve problems at work? (a)
7) How did you principal put structures into place that allowed for formal or informal peer collaboration? (r)
8) How do you believe your principal's specific leadership support in your mid-career stage aided in your continued growth?
Expert Stage Reflection *In reflecting upon the last two years…*
9) In what ways has your teaching has improved due to feedback from your principal? (c)
10) Can you provide examples of when your principal has listened to your opinions and ideas? (a)
11) In what situations have you had the opportunity to be open and honest with your principal? (r)
12) How do you believe your advancement as an educator might have transpired had you been working under different leadership?
General Reflection *In reflecting upon your teaching career…*
13) Understanding the definition of competence to be: the feeling of experiencing success and mastery within one's environment; in what ways, if any, did your principals provide for this need and how did it aid in your growth and development? Did the competence support you received differ throughout your career, and if so, in what ways did it evolve? (c)
14) Understanding the definition of autonomy to be: perception of the basis and motivation for one's own actions (the feeling of having a "say" in your decisions); in what ways, if any, did your principals provide support for this need and how did it aid in your growth and development? Did the autonomy support you received differ throughout your career, and if so, in what ways did it evolve? (a)
15) Understanding the definition of relatedness to be: a sense of community, belonging with and feeling connected to those in one's environment; in what ways, if any, did your principals provide support for this need and how did it aid in your growth and development? Did the relatedness support you received differ throughout your career, and if so, in what ways did it evolve? (r)

Note. Question stems 9-11 in expert reflection modified from Olsen (2017) PSTPN. C=competence, A=autonomy, R=relatedness

APPENDIX D: CODING MANUAL

Research Question One	*Research Question Two*	*Research Question Three*
All negative coding due to the nature of question (supports lacking from leadership)	Positive coding for teachers due to nature of question; Negative coding for principals due to nature of question	Each response was coded in a negative or positive direction subject to the answer from expert interviewees

Competence	
Professional growth	*Feedback/Confidence*
training/workshops/professional development	expectations
professional growth/gain more knowledge	confidence/encourages me/positive recognition
portfolio of skills	feedback/guidance/coached/confer/advice
resources to learn	identify weaknesses/constructive criticism
hands-on/real-world supports and materials	honesty/hard conversations
	communicating concerns
	not much direction (-)

Autonomy	
Trust	*Buy-In*
laidback/free reign/explore/creative	reasoning behind decisions/part of decisions
trust/empowered	buy-in/had a say
freedom/try new initiatives/flexibility	explanation
encourages to solve problems/leaves me alone	allowed input/make decisions
delegate	confusing decisions (-)
control/strict/micromanage (-)	imposing something on me (-)

Relatedness		
Collaboration/ Peer relationships	*Administration genuine, caring, & approachable*	*Feeling Respected and Valued*
get involved with others	caring/emotional support	appreciated/valued
collaborate	vulnerable/	respect
build relationships	express needs/discuss issues	has our backs
common plan time	open-door/present/visible/ accessible/available/approachable	makes us feel important
mentor	interested in me/listener	not consulted (-)
social gatherings	positive environment	
	careful communicating (-)	
	hard to reach/never around (-)	

APPENDIX E: IRB APPROVAL LETTER



Institutional Review Board for the Protection of Human Subjects

Approval of Initial Submission – Expedited Review – AP01

Date: August 09, 2018 **IRB#:** 9545

Principal Investigator: Allison Mary Fennell-Conch **Approval Date:** 08/09/2018 **Expiration Date: 07/31/2019**

Study Title: Exploring the Role of Leadership in Teacher Development According to Career Stage

Expedited Category: 6 & 7

Collection/Use of PHI: No

On behalf of the Institutional Review Board (IRB), I have reviewed and granted expedited approval of the above-referenced research study. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Obtain informed consent and research privacy authorization using the currently approved, stamped forms and retain all original, signed forms, if applicable.
- Request approval from the IRB prior to implementing any/all modifications.
- Promptly report to the IRB any harm experienced by a participant that is both unanticipated and related per IRB policy.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Promptly submit continuing review documents to the IRB upon notification approximately 60 days prior to the expiration date indicated above.
- Submit a final closure report at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,

Ioana Cionea, PhD
Vice Chair, Institutional Review Board