

12-2018

The Perceived Impacts of Positive Psychological Capacities on the Authentic Leadership of Minnesota Secondary School Principals During Professional Critical Incidents

Marcia Welch

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**The Perceived Impacts of Positive Psychological Capacities on the Authentic Leadership of
Minnesota Secondary School Principals During Professional Critical Incidents**

by

Marcia A. Welch

A Dissertation

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree

Doctor of Education

in Educational Administration and Leadership

December, 2018

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Abstract

The foci of the study are the impacts of positive psychological capacities (PsyCaps) of hope, resilient, self-efficacy, and optimism on the authentic leadership of Minnesota secondary school principals during professional critical incidents. A critical incident is “defined as an interruption in the expected behaviours and developments in one’s life that produces strong emotions and a need to ‘make sense’ of the situation” (Weick, 1995; WorksafeBC, 2002, as cited in Lenarduzzi, 2015, p. 254). A professional critical incident is a reminder that leadership consists of successes and failures. Critical incidents make and remake leaders who are courageous enough to participate in self-reflection for personal and professional growth (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Badaracco, 1997; Bennis & Thomas, 2002b, 2007; Maslin-Ostrowski & Ackerman, 2000; Quinn, 2005; Yamamoto, Gardiner, & Tenuto, 2014). While there is research on critical incidents and authentic leadership, there is no research on the impact of PsyCaps on select Minnesota secondary school principals’ authentic leadership performances during professional critical incidents.

The research approach adopted in this dissertation is a mixed methods approach. The quantitative component of the study utilized an online survey to gather data regarding the attitudes and behaviors associated with self-efficacy, hope, resilience, and optimism that Minnesota secondary school principals reported they utilized during professional critical incidents. A modified Psychological Capital Questionnaire (PCQ) survey was used in agreement with the copyright holders of the survey. The qualitative component of the study involved interviews with three principals who voluntarily submitted their contact information on the survey. Data from the survey and the interviews were analyzed to determine the attitudes and behaviors associated with positive psychological capacities a sample of Minnesota secondary school principals perceived they utilized to lead authentically during professional critical incidents and which of the positive psychological capacities they perceived had the greatest impact on their authentic leadership performances during professional critical incidents. Data from the interviews were analyzed to determine the impacts of the positive psychological capacities of hope, self-efficacy, resilience, and optimism on the successful leadership performances during professional critical incidents as perceived by select Minnesota secondary school principals.

The findings from the study provided evidence that select Minnesota secondary school principals perceived themselves as having high positive PsyCaps during critical incidents. All survey items were rated by principal respondents in the above average to high range on a 6-point Likert scale since all items had a mean score above a 4.0. The PsyCaps of confidence in analyzing situations, confidence in communicating building needs to superordinates, and confidence in successfully communicating strategies had the highest mean scores on the PCQ by select Minnesota secondary school principals during critical incidents. The study provides principals with information about psychological capacities, authentic leadership, and behaviors during critical incidents. It may also provide insight into future professional growth opportunities for principals in the area of psychological capacities.

Acknowledgement

This work would not be possible without the support, encouragement, and insight of my dissertation committee: Dr. Kay Worner, Dr. Roger Worner, Dr. Francis Kayona and Dr. John Eller. Without their guidance and care, I would most certainly be lost. I am especially indebted to my advisor, Dr. Kay Worner, who graciously offered her time, talents, and wisdom to ensure my success.

Thank you to the Minnesota Association of Secondary School Principals for partnering with me to facilitate my research. I am eternally grateful.

To Cohort VII, thank you for all of the camaraderie, encouragement, and support throughout my dissertation journey. A special thank you to Jill, Michelle, and Sarah for being a true support net. You are a phenomenal group of individuals to take this journey with and are now friends for life.

Finally, thank you to my husband, Matt Welch, who has allowed me to spend the time I need away from the family to complete my dream. He patiently listened to my ideas, dilemmas, and concerns as he encouraged me throughout this journey. I am truly blessed with his endless love and support.

Dedication

I would like to dedicate this work to my family for all of their love and support. Thank you to my husband and daughter, Matt and Hannah, for all of the guidance, encouragement, and devotion. I also dedicate this in memory of my parents, Don and Millie, who originally instilled in me a passion for education, the meaning of perseverance and hard work, plus the ability to dream and reach for the stars. This one is for you.

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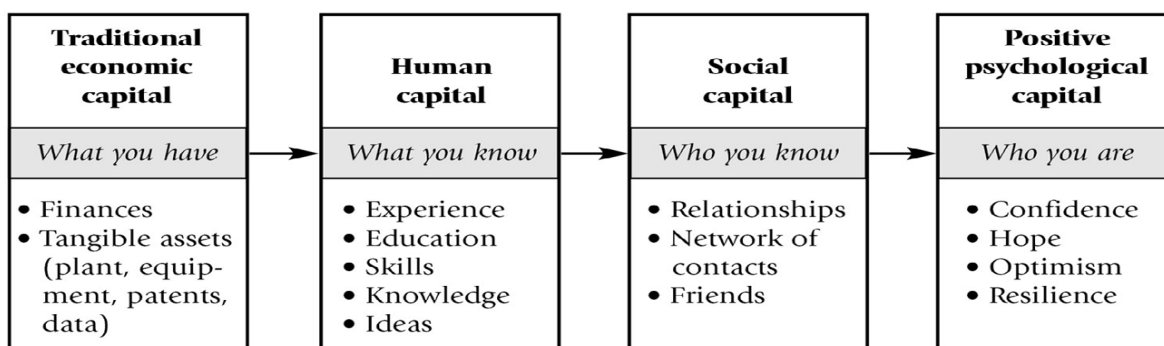
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Chapter I: Introduction

Leadership requires a paradigm shift from managing the traditional, limited resources of facilities and finances to investing and developing leaders' psychological capital of hope, self-efficacy, resilience and optimism to have sustainable, long term success and competitive advantage (Luthans, Luthans, & Luthans, 2004; Luthans, Youssef, & Avolio, 2007; Luthans, Youssef-Morgan, & Avolio, 2015). Avolio (2005) stated most organizations do not exploit the full potential of their human assets by only focusing on the human (i.e., "What you know"), social (i.e., "Who you know"), and traditional (i.e., "What you have") capital, and neglecting psychological (i.e., "Who you are") capital. Luthans et al., (2004) recognized that "Who you are" is every bit as important for organizations to focus on as "What you have", "What you know", and "Who you know" in order to gain the competitive advantage in organizations (see Figure 1). Luthans, Avolio, and Avey (2014) further stipulate that "what the individual leader brings to the table has a more significant impact on which organization has the advantage" (p. 7). By focusing on leaders' strengths and positive qualities, Luthans et al. (2004) and Luthans et al. (2015) believed leaders' confidence, hope, optimism, and resilience could be developed for the betterment of the organization, and proposed organizations could be successful despite ever changing environments "through investing, leveraging, developing, and managing the psychological capital (PsyCap)" of their leaders (2015, p. 7).

Table 1.1

Expanding Capital for Competitive Advantage (Luthans et al., 2004, p. 46)



Ackerman and Maslin-Ostrowski (2004b) agreed with Luthans by stating principals must establish a true sense of who they are by “developing a well-rounded sense of self, grounded in trusting one’s feelings, intuition, imagination, and resourcefulness” along with learning the competencies of the job (p. 311). Without a sense of “Who you are” or having positive PsyCap, leaders and principals are unable to deal effectively with the difficulties that face the occupation (Arias, 2016; Luthans et al., 2004; Luthans et al. 2015).

As leaders, principals face unparalleled challenges and professional critical incidents as they attempt to adjust to increasing rates of change (Hannah, Avolio, Luthans, & Harms, 2008; Lenarduzzi, 2015). Professional critical incidents are an inevitable part of leadership life due to greater pressures for accountability, increased competition, greater diversity in students and staff, and increased workload to name a few stressors (Ackerman & Maslin-Ostrowski, 2002; McWilliam & Hatcher, 2007).

For the purposes of the study, a professional critical incident is “defined as an interruption in the expected behaviours and developments in one’s life that produces strong

emotions and a need to ‘make sense’ of the situation” (Weick, 1995; WorksafeBC, 2002; as cited in Lenarduzzi, 2015, p. 254). A professional critical incident is a reminder that leadership consists of successes and failures. Critical incidents make and remake leaders who are courageous enough to participate in self-reflection for personal and professional growth (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Badaracco, 1997; Bennis & Thomas, 2002b, 2007; Maslin-Ostrowski & Ackerman, 2000; Quinn, 2005; Yamamoto et al., 2014). Critical incidents initially shake leaders’ confidences, but through self-reflection leaders analyze those incidents and redefine their leadership, values, or beliefs (Yamamoto et al., 2014). If leaders repress their emotions or do not utilize self-reflection after a professional critical incident, their leadership and their inner selves suffer (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Maslin-Ostrowski & Ackerman, 2000; Yamamoto et al., 2014).

Avolio, Luthans, and Walumbwa (2004), along with Jensen and Luthans (2006), believed authentic leaders possess a considerable amount of the positive psychological capacities of self-efficacy, hope, optimism, and resilience to aid in overcoming challenges and critical incidents. When faced with a professional or personal critical incident, if individuals are highly resilient with an ability to bounce back and are also self-efficacious, highly optimistic, and highly hopeful, they will be motivated to persevere, overcome, and generate alternate pathways to meet their goals (Luthans et al., 2007; Luthans, Avey, & Patera, 2008; Norman, Avolio, & Luthans, 2010).

Change not only tests principals’ knowledge and competencies, but also their confidence regarding their authentic leadership capabilities and psychological capacities in order to meet the increasing requirements of their positions (Avolio & Luthans, 2006; Hannah et al., 2008).

Luthans and Avolio (2003) as well as Avolio and Gardner (2005) described authentic leadership

as a process that elicits an individual's positive psychological capacities (PsyCap) within an organizational framework that culminates in increased self-awareness and positive self-development of leaders. Luthans et al. (2007) argued that authentic leaders can become more authentic through utilizing PsyCap development efforts. If principals' professional development efforts are focused on the positive capacities of hope, self-efficacy, resilience, and optimism under the core construct of PsyCap, such efforts may help them cope with stress, enhance performance, and minimize turnover (Luthans, 2012).

This study does not assume all Minnesota secondary school principals are effective authentic leaders. However, the study provides insight into the positive psychological capacities of hope, self-efficacy, resilience, and optimism (each of which is associated with authentic leadership) that Minnesota secondary school principals reported they utilized to lead authentically during a professional critical incident.

Conceptual Framework

Miles and Huberman (1994) believed "A conceptual framework explains, either graphically or in a narrative form, the main things to be studied—the key factors, constructs, or variables—and the presumed relationships among them. Frameworks can be rudimentary or elaborate, theory driven or commonsensical, descriptive, or causal" (p. 18). Roberts (2010) likened the conceptual framework of a study to a lens through which the researcher views a problem to get a clearer picture.

The conceptual framework for the study is the positive psychological capacities of authentic leadership practices. Luthans et al. proposed that "PsyCap offers a more comprehensive, higher order conceptual framework for understanding and capitalizing on human assets in today's organizations" (Luthans et al., 2007, p. 21). A review of literature revealed

significant research in authentic leadership and positive psychological capacities; yet, a gap exists in the research pertaining to principals' utilization of positive psychological capacities during professional critical incidents.

Statement of Problem

As leaders, principals face unparalleled challenges and professional critical incidents as they attempt to adjust to increasing rates of change (Hannah et al., 2008; Lenarduzzi, 2015). Professional critical incidents are an inevitable part of leadership life due to greater pressures for accountability, increased competition, greater diversity in students and staff, and increased workload to name a few stressors (Ackerman & Maslin-Ostrowski, 2002; McWilliam & Hatcher, 2007). There is a lack of research regarding Minnesota secondary school principals' utilization of positive psychological capacities (resilience, optimism, hope, and self-efficacy) to lead authentically during professional critical incidents.

Purpose of the Study

The purpose of the study was to determine the positive psychological capacities Minnesota secondary school principals reported they utilized to lead authentically during professional critical incidents. The research was designed to provide information regarding the impacts of the positive psychological capacities of resilience, optimism, hope, and self-efficacy on select Minnesota secondary school principals' authentic leadership performances during professional critical incidents. The study results may prove to be beneficial to school district leadership and professional organizations in Minnesota by providing insights into how positive psychological capacities assisted respondent principals in achieving successful performances during their professional critical incidents and better understand the impact of PsyCaps and authentic leadership during professional critical incidents.

Assumptions of the Study

During the conduct of the study, the researcher established the following assumptions:

1. Study participants were licensed secondary school principals and active members of Minnesota Association of Secondary School Principals.
2. Study participants had experienced one or more critical incidents while serving as a principal.
3. Study participants had an interest in the study topics of positive psychological capacities and authentic leadership.
4. Study participants voluntarily participated in the study.

Delimitations

The delimitations of the study were as follows:

1. Participants in the study were limited to public secondary school principals in the State of Minnesota.
2. Only secondary school principals who were active members of the Minnesota Association of Secondary School Principals (MASSP) were invited to participate in the study.
3. Demographic data was not collected from the principals who agreed to participate in the study. This potentially limits the generalizability of the study's findings to the entire MASSP population.
4. The study was self-reported by participants, and the validity of the findings was based on the participants' honesty.

Research Questions

Survey and interview responses provided insights into the positive psychological capacities impact on Minnesota secondary school principals' authentic leadership performances during professional critical incidents. The following questions guided the research:

1. What attitudes and behaviors associated with positive psychological capacities did Minnesota secondary school principals report they utilized to lead authentically during a professional critical incident?
2. Which of the positive psychological capacities did Minnesota secondary school principals perceive had the greatest impact on their authentic leadership performances during professional critical incidents?
3. What did Minnesota secondary school principals report as the impacts of the utilization of positive psychological capacities of hope, self-efficacy, resilience, and optimism on their authentic leadership performances during professional critical incidents?

Definitions of Terms

Principal. For purposes of the study, principal is defined as a public middle, junior high or high school head, associate, or assistant principal, who is a member of the Minnesota Association of Secondary School Principals (MASSP, 2017).

Authentic leaders. Avolio, Luthans, and Walumbwa (2004) defined authentic leaders as those who know, accept and remain true to their core values and beliefs. Authentic leaders are “those individuals who are deeply aware of how they think and behave and are perceived by others as being aware of their own and others’ values/moral perspective, knowledge, and

strengths; aware of the context in which they operate; and who are confident, hopeful, optimistic, resilient and high on moral character” (p. 4).

Positive organizational behavior (POB). Luthans (2002b) defined POB as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement” (p. 59).

Positive psychological capacities (PsyCap). Luthans et al. (2007) defined psychological capacities (PsyCap) as an:

individual’s positive psychological state of development and is characterized by (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success. (p. 3)

Hope. Hope is defined as a “positive motivational state based on an interactively derived sense of successful (a) agency (goal directed energy) and (b) pathways (planning to meet goals)” (Snyder, Irving, & Anderson, 1991, p. 287).

Goals. Goals are “objects, experiences, or outcomes that we imagine and desire” (Snyder, 1994, p. 5).

Agency. Agency is the will to achieve the expected or desired outcome and is the impetus in hopeful thinking (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Luthans et al., 2008; Luthans et al., 2007; Peterson & Byron, 2007; Snyder, 2000; Youssef & Luthans, 2007).

Pathways. Pathways, the waypower, are the ability to generate alternative workable routes to attain one's desired goals (Avolio et al, 2004; Klocko & Wells, 2015; Peterson & Byron, 2007; Snyder et al., 1991; Youssef & Luthans, 2007).

Self-efficacy. Luthans et al. (2007) denoted self-efficacy as a leader's confidence in his/her ability to control one's motivation, behavior, and social environment to successfully complete a task. Self-efficacy is based upon the belief in one's abilities to achieve a goal or an outcome.

Resilience. For the study, resilience, as it is applied to the workplace, is defined as the "positive psychological capacity to rebound, to bounce back from adversity, uncertainty, conflict, failure; or even positive change, progress, and increased responsibility" (Luthans, 2002a, p. 702).

Optimism. Luthans et al., (2014) defined optimism as "having a positive outcome, outlook or attribution, including positive emotions and motivation, while maintaining a realistic outlook" (p. 4).

Critical incident. For the study, a critical incident is "defined as an interruption in the expected behaviours and developments in one's life that produces strong emotions and a need to 'make sense' of the situation" (Weick, 1995; WorksafeBC, 2002; as cited in Lenarduzzi, 2015, p. 254).

Summary

The study examined the impact of the use of positive psychological capacities on Minnesota secondary school principals' authentic leadership during a professional critical incident. Avolio et al. (2004), along with Jensen and Luthans (2006), stipulated authentic leaders possess a considerable amount of the positive psychological capacities of self-efficacy, hope,

optimism and resilience to aid in overcoming challenges and critical incidents. When faced with a professional or personal critical incident, if individuals are highly resilient with an ability to bounce back, are also self-efficacious, highly optimistic, and highly hopeful, they will be motivated to persevere, overcome, and generate alternate pathways to meet their goals (Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010).

The findings of the study may be beneficial to principals, their professional organizations, and school districts in Minnesota to provide insight into how positive psychological capacities can assist principals in successful performance during professional critical incidents.

Chapter I included an introduction to the study, the conceptual framework, a statement of the problem, the purpose of the study, the assumptions of the study, the delimitations, the research questions, and the definition of terms. Chapter II presents a review of literature of positive psychological capacities utilized by principals to lead effectively during critical incidents. Chapter II examines research related to the following themes: a) description of leadership, b) description of the principal's leadership role c) description of authentic leadership, c) definition, effects, and implications of psychological capacities and d) definitions, effects, and implications of professional critical incidents. Chapter III delineates the details of a mixed methods study; including the methodology, participants, human subject's approval, instrumentation, procedures and timeline, and methods of analysis. Chapters IV presents a comprehensive analysis of the data compiled for the study through the survey and interviews. Chapter V presents a summary of the findings, the researcher's conclusions based upon the compiled data, the limitations of the study, recommendations for further research, and recommendations for practice.

Chapter II: Literature Review

Chapter II presents a review of literature relevant to the positive psychological capacities utilized by principals to lead effectively during professional critical incidents. Main sections of this chapter include:

- Leadership
- Principal's leadership role
- Authentic leadership
- Definition, effects, and implications of psychological capacities
- Definition, effects, and impact of critical incidents
- Summary

Leadership

For years, people have believed that leadership is crucial to the success of organizations, institutions, or endeavors (Marzano, Waters & McNulty, 2005). Bennis (2009) described leadership as the aptitude to be completely and absolutely oneself, to be able to show up fully, communicate effectively, and share one's self with the organization. Effective leaders exhibit boundless enthusiasm, are motivated to make a difference, exude pride and a sincere belief in their staff, themselves, and their organization (Boyatzis & McKee, 2005; Crawford, 2009; Leithwood & Beatty, 2008; Yamamoto et al., 2014). Through their example, discussions, and policies, leaders communicate positive reconstructions of stressful experiences to ensure resilient organizations (Bartone, 2006). "However, the very core of leadership is infused with the individual's belief that he/she can improve a situation" (Jason, 2001, p. 35).

Sergiovanni (1987) and Lunenburg (2010) found effective leaders provide meaning by rallying people around a common goal. Accomplishing common goals correlated with the high

level of achievement motivation present in effective leaders according to Jason (2001). Wisner (2011) postulated leaders inspire a shared vision in the organization fostering a dream of future successes while instilling ownership of the vision in all stakeholders. Having a shared vision with stakeholders ignites a desire to change by making things happen in order to innovate, grow and improve through experimentation and failure. Enabling others to step up to the plate is recognition that leadership is shared, a team effort (Wisner, 2011). Wisner believed, “Effective leaders create conditions in which others can do good work, take risks, and create change” (2011, p. 355). Jason stipulated, “When leaders believe their vision and actions were (and continue to be) instrumental in improving a situation and have corroborating evidence for this, these factors contribute to a sense of personal meaning that enhances job satisfaction” (2001, p. 35).

Principal’s Leadership Role

Marzano et al. (2005) and a 1970 U.S. Senate Committee Report on Equal Educational Opportunity (U.S. Congress, 1970) posited school leadership is crucial to the success of the school and has a considerable effect on student achievement. With an ever-expanding role, the principal is vital for school success. “If a school is a vibrant, innovative, child-centered place, if it has a reputation for excellence in teaching, if students are performing to the best of their ability, one can almost always point to the principal’s leadership as the key to the success” (Marzano et al., 2005, pp.5-6). Effective principals understand the leadership functions, the administrative roles, and the management skills necessary to succeed (Lunenburg, 2010). The principal establishes policies and procedures, creates the chain of command, hires competent personnel, establishes training programs for new personnel, and builds formal and informal communication networks along with being an instructional leader (Lunenburg, 2010). Lunenburg (2010) categorized principal tasks into the four areas of planning, organizing, leading, and

monitoring. Jason (2001) agreed that a large part of the principal's job is to facilitate the teaching and learning process. DuFour, DuFour, Eaker, and Karhanek (2010) declared the principal's job is attaining schoolwide goals by working with all stakeholders through the utilization of professional learning communities.

While attaining building goals and creating a strong learning community, principals must also achieve district goals. These goals or expectations can, at time, conflict with the building's goals (Strike, 2007). Lenarduzzi (2015) found "Principals often used such terms as 'walking the line' and 'balancing act' as they operate to satisfy the expectations of both the district and their school community" (p. 263). Other researchers completed a comprehensive task analysis of principals to determine three general characteristics of their work: 1) Heavy workload at a fast pace, 2) Variety, fragmentation, and brevity, and 3) Oral communication (Lunenburg, 2010; Lunenburg & Irby, 2014; Sergiovanni, 2009; Tareilo, 2010; Ubben, Hughes, & Norris, 2015).

Principals are also uniquely situated for instituting and expanding the health and quality of school (Lenarduzzi, 2015). The principal is instrumental in propagating an ethical, positive school culture and the ensuing successful learning environment (Fullan, 2005; Hargreaves & Fink, 2012; Leithwood, Harris, & Hopkins, 2008; Sergiovanni, 2007, 2009; Strike, 2007). Effective leaders and principals exhibit boundless enthusiasm, are motivated to make a difference, plus exude pride and a sincere belief in their students, school and community (Boyatzis & McKee, 2005; Crawford, 2009; Leithwood & Beatty, 2008; Yamamoto et al., 2014).

The role principals adopt configures "how they approach their practice, what they are able to accomplish, and how they think about their work, most important it also shapes what they feel and believe the role permits them to feel" (Ackerman & Maslin-Ostrowski, 2002, p. 8).

Ackerman and Maslin-Ostrowski (2002, 2004a, 2004b) found principals felt defined and

confined by the role and by society's high expectations of them. The school community expects principals to always make the right choices for students and to fix all issues; these exaggerated qualities are virtually impossible for principals to attain (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b). "Leaders can easily become trapped by expectations, society's as well as their own" (Maslin-Ostrowski & Ackerman, 2000, p. 226). Ackerman and Maslin-Ostrowski (2002, 2004a, 2004b) stipulated that the discord between the principal's role, community expectations, and one's identity can reduce one's ability to be an authentic leader.

Authentic Leadership

Avolio and Gardner (2005) postulated "The concept of authenticity has its roots in Greek philosophy ('To thine own self be true')" (p. 319). Maslow (1971, 1975) and Rogers (1959, 1963) discussed the development of fully functioning or self-actualized persons, people with an in-depth understanding of themselves and their lives. Due to their self-actualization, they are free from expectations of others and are able to make rational decisions based on their situational and self-awareness (Maslow, 1971, 1975; Rogers, 1959, 1963).

Leadership without perspective and point of view isn't leadership—and of course it must be your own perspective, your own point of view. You cannot borrow a point of view any more than you can borrow someone else's eyes. It must be authentic, and if it is, it will be original, because you are original. (Bennis, 1992, p. 122)

"Authentic leaders display a high degree of integrity, have a deep sense of purpose, and are committed to their core values" (Hassan & Ahmed, 2011, p. 1036). Avolio, Gardner, et al. (2004) assert authentic leaders build credibility, gain the respect and trust of followers by acting in accordance with the leader's core values and beliefs. Therefore, trust, job satisfaction, organizational commitment, and work engagement are increased for organizations with authentic

leadership (Hassan & Ahmed, 2011). Effective organizational leadership must be authentic for long term success (Hassan & Ahmed, 2011).

Ackerman and Maslin-Ostrowski (2002, 2004 a, 2004b) stipulated that the discord between the leadership role, community expectations, and one's identity can reduce one's ability of being authentic. "Leaders can easily become trapped by expectations, society's as well as their own" (Maslin-Ostrowski & Ackerman, 2000, p. 226). Seeman (1960) focused his research on inauthentic leaders who he stated are actors playing a role based off of the expectations and demands of the public. Henderson and Hoy (1982) furthered Seeman's concept by defining an inauthentic leader as a person who is malleable to changing leadership role stereotypes.

Argyris (1985) discussed how organizational growth is contingent upon an environment which allows people to take risks and be authentic. According to Harter (2002), the term authenticity refers to:

owning one's personal experiences, be they thoughts, emotions, needs, wants, preferences, or beliefs, processes captured by the injunction to know oneself and further implies that one acts in accord with the true self, expressing oneself in ways that are consistent with inner thoughts and feelings. (p. 382)

Avolio, Luthans, and Walumbwa (2004) defined authentic leaders as those who know, accept and remain true to their core values and beliefs. Shamir and Eilam (2005) contend authentic leaders internalize their convictions, causes, values, and beliefs not to imitate others, but they are based on the sum total of a leader's personal experiences. Authentic leaders "hold their values to be true not because these values are socially or politically appropriate, but because they have experienced them to be true" (Shamir & Eilam, 2005, p. 397). It is this lived

experience and the meaning made through self-reflection that Shamir and Eilam (2005) posit is what Harter (2002) meant by “owning one’s personal experiences”.

Avolio, Gardner, et al. (2004) plus Jensen and Luthans (2006) added that authentic leaders possess a considerable amount of self-efficacy, hope, optimism, and resilience to aid in overcoming challenges and critical incidents. Luthans, Norman, and Hughes (2006) stipulate that organizations who select leaders with high levels of positive psychological capacities (PsyCap) enhance the opportunity for attaining an authentic leader. Authentic leaders believe they not only have the ability, but the right to embody leadership roles due to their self-efficacy (Bennis, 1992). Avolio, Gardner, et al. (2004) found that “authentic leadership was a significant and positive predictor of organizational citizenship behavior, organizational commitment, and satisfactions with supervisor and performance” (p. 424). Luthans and Avolio (2003) along with Avolio and Gardner (2005) described authentic leadership as a process that elicits an individual’s positive PsyCap within an organizational framework that culminates in increased self-awareness and positive self-development of leaders. Luthans et al. (2006) and Avolio, Gardner, et al. (2004) posit authentic leaders with high levels of positive PsyCap enhance organizations through a contagion effect, thus creating a supportive, strength-based organization. Avolio, Gardner, et al. (2004) state that the “culture of an organization, as expressed by its values, norms, and politics may influence the effectiveness of authentic leadership” (p. 815) even though the authentic leadership model stresses the importance of the positive PsyCap in leadership. Luthans et al. (2007) argue that authentic leaders can become more authentic through PsyCap utilizing development efforts.

Definition, Implications, and Effects of Psychological Capacities (PsyCap)

Luthans, Avolio, Avey, and Norman (2007) state that prior to World War II, psychologists were given a three-dimensional mission: “healing mental illness, helping healthy people become happier and more productive, and actualizing human potential” (p. 8). After the war, there was substantial need for healing mental illness and repairing the damage from the trauma of a world war. As such, the proactive dimensions of psychology gained little attention from the profession (Luthans et al., 2007). At the start of the twenty-first century, Martin Seligman began the positive psychology movement through refocusing on the original, forgotten tenets of psychology to increase employees' happiness, productivity, and self-actualization (Luthans et al., 2007; Seligman, 2006; Seligman & Csikszentmihalyi, 2000). Seligman began the two-pronged query of 1) whether there is a psychological capital and 2) if so, what is it and how do leaders gain psychological capital (Luthans, 2002b). This focus led to the study of positive organizational behaviors (POB) and was defined as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement” (Luthans, 2002b, p. 59). Luthans et al. (2007) determined several requirements for a psychological capacity or strength to be included in the concept of POB. It must be positive, unique to organizational behavior, theory- and research-based, measurable, state-like or developmental, and associated to performance objectives.

Luthans et al. (2007) defined psychological capacities (PsyCap) as an individual's positive psychological state of development and is characterized by (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals

(hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success. (p. 3)

Avolio and Luthans (2006) state “PsyCap as going beyond what is human (what you know) and social (who you know) capital to ‘who you are’ (the actual self) and ‘what you intend to become’ (your possible self)” (p. 147). Quite simply, the term psychological capital represents one’s motivational predispositions that accumulate through the four main components of PsyCap; optimism, hope, self-efficacy, and resilience (Luthans et al., 2007; Norman et al., 2010; Toor & Ofori, 2010). Luthans et al. (2007) argued that four PsyCap components together predict achievement and satisfaction better than any of the individual components on their own and based their prediction upon Fredrickson and Joiner’s (2002) broaden-and build theory. Fredrickson and Joiner (2002) argued positive emotions generate “upward spirals” of broader thinking, performance, and eudaimonia. The factors of hope, optimism, resilience, self-efficacy work together in a broadening fashion to maintain motivation and pursuit of organizational goals (Fredrickson & Joiner, 2002; Luthans et al., 2007; Luthans et al., 2008; Norman, et al., 2010). “PsyCap is developed and managed by gaining rewards (i.e., skills, network connections, investments) from the present while increasing the likelihood of future benefit (i.e., performance), however PsyCap obtains experiential rewards for future benefit” (Luthans et al., 2014, p. 2).

PsyCap proponents believe PsyCap provokes individuals into asking themselves “Who am I?”, resulting in effective and authentic leadership through developing a leader’s deeper self-awareness of their virtuosities and vulnerabilities (Luthans & Youssef, 2004; Toor & Ofori, 2010). Avolio and Luthans (2006) stated during authentic leadership development the “components of PsyCap can have a profound, positive, physical and psychological impact” on

individuals and organizations (p. 155). When faced with a professional or personal critical incident, if individuals are highly resilient with an ability to bounce back are also self-efficacious, highly optimistic, and highly hopeful, they will be motivated to persevere and overcome and generate alternate pathways to meet their goals (Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010).

Luthans et al. (2007) and Luthans et al. (2008) reported the four constructs of PsyCap are developable in individual and are greater than the sum of its parts. The researchers also established PsyCap can “be measured and related to performance and satisfaction” (p. 568). Luthans et al. (2007) provided substantial evidence that each capacity adds its own unique qualities to an individual, but is additive to PsyCap overall. High PsyCap individuals may be strong performers due to the amount of integration, interaction, and broadening of the factors of hope, self-efficacy, resilience, and optimism (Luthans et al., 2007; Luthans et al., 2008). Norman et al. (2010) revealed evidence regarding the impact of PsyCap on leadership effectiveness during a critical incident. Organizations must invest in human resources by developing authentic leadership through PsyCap to successfully achieve organizational goals and survive critical incidents (Toor & Ofori, 2010).

Hope

Hope, PsyCap’s first component, was defined by Snyder (1994) as a combination of intellectual energy and pathways to one’s goals. Klocko and Wells (2015) added “hope creates energy and excitement for a future that is possible” (p. 355). Stajkovic (2006) extended the theory of hope by identifying the differences between passive and active hope. Passive hope is similar to the traditional definition of hope that is “a feeling that something desired will occur: (Dictionary.com, 2017). Passive hope does not involve utilizing actions to achieve desired

outcomes (Stajkovic, 2006). Active hope involves a persistent will to achieve goals (Peterson & Byron, 2007; Stajkovic, 2006).

For the purpose of the study, hope is defined as a “positive motivational state based on an interactively derived sense of successful (a) agency (goal directed energy) and (b) pathways (planning to meet goals)” (Snyder et al., 1991, p. 287). Luthans et al. (2007) stated that agency, pathways, and goals are the three conceptual foundations of the hope construct of PsyCap. Snyder (2000) stated hope is comprised of the will to succeed and the ability to determine, clarify, and sustain forward movement toward one’s goals even during difficult times.

According to Snyder (1994), goals are “objects, experiences, or outcomes that we imagine and desire” (p. 5). A goal is what we wish to acquire or attain (Peterson & Byron, 2007; Snyder, 1994). Goals vary in difficulty, specificity, timeframes, and formality (Peterson & Byron, 2007).

Agency is the will to achieve the expected or desired outcome and is the impetus in hopeful thinking (Avolio et al., 2004; Luthans et al., 2007; Luthans et al., 2008; Peterson & Byron, 2007; Snyder, 2000; Youssef & Luthans, 2007). Agency consists of individual’s perceptions and thoughts regarding their ability to meet and achieve their goals. Peterson and Byron (2007) reported when individuals initiate agency thoughts, they are inspired to continue forward progress towards their goals. Agency is the goal directed determination, the willpower, to achieve goals through the positive motivational state of hope (Snyder et al., 1991; Luthans et al., 2008; Peterson & Byron, 2007; Youssef & Luthans, 2007).

Pathways, the waypower, are the ability to generate alternative workable routes to attain one’s desired goals (Avolio et al., 2004; Klocko & Wells, 2015; Peterson & Byron, 2007; Snyder et al., 1991; Youssef & Luthans, 2007). It is the mental capacity individuals utilize to discover

more effective means of reaching one's goals (Avolio et al., 2004; Klocko & Wells, 2015; Peterson & Byron, 2007; Snyder et al., 1991; Youssef & Luthans, 2007). Pathways thinking allows for individuals to envision multiple strategies when brainstorming methods to achieve specific goals or creating alternative methods due to goal revision (Peterson & Byron, 2007). Combining pathways thinking with agency thoughts, provides the motivation to continue during critical incidents or difficult periods to attain success (Peterson & Byron, 2007). "Although agency and pathways thinking represent two distinct dimensions, they are interrelated and operate in a combined and iterative manner to generate hope" (Avolio et al., 2004, p. 808).

Hope has many implications for principals and leaders. Youssef and Luthans (2007) stated that hope is positively related to job performance, organizational commitment, and work happiness. Luthans and Youssef (2004) found that employee's job satisfaction and retention were significantly impacted by hope. While Peterson and Byron (2007) argued a positive correlation between hope and job performance is due to pathways and agentic thinking of hope. Leaders who were hopeful, created a sense of hope in their employees as well (Klocko & Wells, 2015).

High hope individuals generated more strategies or pathways to attain goals and are highly motivated to achieve their goals (Peterson & Byron, 2007). Snyder (2000) found that high hope individuals tend to be more confident on specific tasks (self-efficacy) and are able to bounce back (resilience) after a critical incident. Hope allowed leaders to recover expediently after a critical incident by allowing them to positively reframe the situation (Arias, 2016; Boyatzis & McKee, 2005; Klocko & Wells, 2015). Peterson and Byron (2007) posited that higher hope executives produced more and better-quality solutions to work-related problems or issues. "Rather than doubting themselves, they will consider possible obstacles and use these perceived obstacles to develop higher quality solutions" (Peterson & Byron, 2007, pp. 789-790).

The capacity to create multiple pathways around obstacles to achieve goals, motivated high hope leaders according to Luthans and Youssef (2004).

Self-Efficacy

PsyCap's second component is self-efficacy. Bandura (1997, 1998) defined self-efficacy as optimistic beliefs regarding an individual's ability to successfully achieve goals or deal with critical incidents in life. Luthans et al. (2007) described self-efficacy as a leader's confidence in his/her ability to control one's motivation, behavior, and social environment to be successful. Self-efficacy is based upon the belief in one's abilities to achieve a goal or an outcome (Bandura, 1997, 1998; Bayramoğlu & Şahin, 2015; Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010). Just like optimism and hope, self-efficacy can be cultivated over time through self-reflection (Arias, 2016).

Self-efficacy and the agency component in hope are similar since both involve beliefs about anticipated success (Peterson & Byron, 2007). According to Stajkovic (2006), self-efficacy differed from hope in two fundamental ways. First, self-efficacy interest with task accomplishment is not only goal-related. Second, self-efficacy does not include the pathways component of hope (Stajkovic, 2006).

Bayramoğlu and Şahin (2015) stated self-efficacious people have five common characteristics: 1) they strive for high goals and engage in difficult tasks voluntarily, 2) they enjoy and thrive on challenge, 3) they have an extraordinary amount of initiative, 4) they are willing to put in the time and effort to meet their goals, and 5) they do not quit when facing barriers. Bandura (1997) also concluded that individuals high in self-efficacy were more resilient to adversity. A person with low self-efficacy experiences more depression, anxiety, illness, and fatigue than someone with high self-efficacy (Luthans et al., 2004).

Hannah et al. (2008) declared leadership efficacy is correlated with the degree of confidence one has in their knowledge and competence with leading others. “Effective leadership requires high levels of agency (i.e., deliberately or intentionally exerting positive influence) and confidence” (Hannah et al., 2008, p. 1). Hannah and Luthans (2008) proposed the positive PsyCap of self-efficacy supports leadership engagement, plus adaptability across challenges due to “the drive to create the agency needed to pursue challenging task and opportunities successfully” (Hannah et al., 2008, p. 1). Self-efficacy was also found to have a positive impact on work-related performance of leaders (Bandura, 2009; Bandura & Locke, 2003; Luthans et al., 2007; Stajkovic & Luthans, 1998). Bandura and Locke (2003) found that self-efficacy affects individuals’ self-perceptions by whether they think in a self-enhancing or self-debilitating method, their susceptibility to stress and depression, and the quality of choices they make at critical points.

Resilience

The third component of PsyCap, resilience, was defined as the ability to overcome adversity (Lock & Janas, 2002; Richardson, 2002). Milstein and Henry (2007) stated that resilience is the ability to “bounce back from adversity, learn new skills, develop creative ways of coping and become strong” (p. 7). For the study, resilience, as it is applied to the workplace, is defined as the “positive psychological capacity to rebound, to ‘bounce back’ from adversity, uncertainty, conflict, failure, or even positive change, progress, and increased responsibility” (Luthans, 2002a, p. 702). Resilience enables individual protective factors to operate through amplifying the strengths and/or diminishing the risk factors (Luthans et al., 2014). Bayramoğlu and Şahin (2015) proposed that resilient people have three common traits: “acceptance of reality; a strong belief that life is meaningful; and a remarkable talent to improvise” (pp. 155-156).

Individuals with a lack of resilience are unable to overcome adversity and are likely to struggle with increased responsibility and other positive changes (Luthans et al., 2014).

Positive psychology proponents characterized resilience as a positive coping mechanism when encountering a significant critical incident (Masten, Cutuli, Herbers & Reed, 2009; Luthans et al., 2007). Peres, Moreira-Almeida, Nasello, & Koenig (2007) believed resilience to be the ability to recapture a gratifying life after adversity. According to Christman and McClellan (2008), “most scholars view resilience as an adaptive and coping trait that forms and hones positive character skills, such as patience, tolerance, responsibility, compassion, determination and risk taking” (p. 7). Richardson (2002) referred to these resilience characteristics as protective factors or developmental assets. Youssef and Luthans (2007) argued resilience is not only a reactive trait but is also proactive due to an individual’s potential for learning and growth through overcoming obstacles or critical incidents. Individuals become more resilient to critical incidents each time they effectively bounce back from an obstacle (Luthans et al., 2007; Richardson, 2002) and the positive emotions have been found to have an upward spiraling effect (Fredrickson & Joiner, 2002). Positive emotions, like laughter, can reduce levels of stress following a critical incident (Bonanno, 2004).

Through individuals’ examples, discussions, and policies, individuals communicate positive reconstructions of stressful experiences to ensure resilient organizations (Bartone, 2006). Richardson (2002) also believed leaders’ personal and interpersonal skills grow through adversity. Grotberg (2003) stated that resilience is transformative due to the leader adapting his/her personality to ensure success during future critical incidents or hardships. Grotberg concluded that this transformation occurred due to frequent self-reflection and insight (2003).

Luthans, Avolio, Walumbwa, and Li (2005) found a significant correlation between resilience and job performance of Chinese workers undergoing a significant change. Youssef and Luthans (2007) and Youssef-Morgan and Luthans (2015) furthered studies of resilience by discovering employees' level of resilience is positively related to their fulfillment, commitment, and well-being.

Optimism

Optimism, PsyCap's last component, is defined by Scheier and Carver (1985), Avolio and Luthans (2006), and Wisner (2011) as a belief that advantageous events will occur in the future (Avolio & Luthans, 2006; Bayramoğlu & Şahin, 2015; Scheier & Carver, 1985; Wisner, 2011). Avolio and Luthans (2006) and Wisner (2011) further posit optimism can be learned and developed by leaders as a quality that contributes to the self-awareness, confidence, willingness to take risks, and desire to help others succeed.

According to Snyder (1994) and Seligman (2006), individuals high in optimism mentally approach failures in three distinct ways to distance themselves and lessen the impact of failure. First, individuals high in optimism, or optimists, externalize the explanation for the failure to circumstances, bad luck or others (Seligman, 2006; Snyder, 1994). They believe failures can be overcome by their effort and abilities (Bayramoğlu & Şahin, 2015). Second, optimists believe setbacks are temporary, not permanent setbacks (Seligman, 2006; Snyder, 1994). Third, optimists do not overgeneralize failures; they understand failures are isolated to a particular circumstance (Seligman, 2006; Snyder, 1994). "In summary, the optimist gives external, variable, and specific reasons for failures whereas the pessimist makes internal, stable and global attribution" (Snyder, 1994, p. 17).

Seligman (2006) reported optimism had a positive relationship with performance in the workplace. Optimism has been shown to have a significant and positive relationship with work performance (Seligman, 2006; Luthans et al., 2005) job satisfaction, happiness, and work performance (Youssef & Luthans, 2007). Through leaders' examples, discussions, and policies, leaders communicate positive reconstructions of stressful experiences to ensure resilient organizations (Bartone, 2006).

Luthans and Youssef (2004) believed optimism can protect leaders from the negative emotions of depression, guilt, and despair. Allison (2011) stated, "In the face of harsh realities and brutal truths, resilient leaders are optimistic but not naive" (p. 81). Norman et al. (2010) surmised realistic optimism is correlated with having positive outlooks and positive perceptions of events. Luthans et al. (2007) declared "optimism is not just an unchecked process without realistic evaluation of what one can and cannot accomplish in a particular situation and hence adds to one's efficacy and hope" (p. 547).

Optimism and hope are similar, yet different in nature. Snyder (2000) noted that similar to hope "optimism is a goal-based cognitive process that operates whenever an outcome is perceived as having substantial value" (p. 257). Hope and optimism both involve the perception certain desired outcomes will be reached (Peterson & Byron, 2007). However, optimism does not recognize the means, the pathway component of hope, by which to accomplish the desired outcome (Snyder, 1994).

In summary, all four of PsyCap's components are positive attributes for leaders during critical incidents. Luthans et al. (2007) argued that four PsyCap components together predict achievement and satisfaction better than any of the individual components on their own. "broaden-and build" theory. Fredrickson and Joiner (2002) argued positive emotions generate

“upward spirals” of broader thinking, performance, and eudaimonia. The factors of hope, optimism, resilience, self-efficacy work together in a broadening fashion to maintain motivation and pursuit of organizational goals (Fredrickson & Joiner, 2002; Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010). When faced with a critical incident, if individuals are highly resilient with an ability to bounce back are also self-efficacious, highly optimistic, and highly hopeful, they will be motivated to persevere and overcome and generate alternate pathways to meet their goals (Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010). The broadening of the factors of hope, self-efficacy, resilience, and optimism lead to strong performance in high PsyCap individuals (Luthans et al., 2007; Luthans et al., 2008). PsyCap positively impacted leadership effectiveness during critical incidents (Norman et al., 2010). By improving authentic leadership through PsyCap development, organizations will successfully achieve organizational goals and survive critical incidents (Toor & Ofori, 2010).

Definition, Effects, and Impact of Critical Incidents

The literature and research on critical incidents spanned multiple fields from business to education and utilized a variety of terms to describe critical incidents. Lenarduzzi (2015) cited Weick (1995) and WorksafeBC (2002) in determining a critical incident as being “defined as an interruption in the expected behaviours and developments in one’s life that produces strong emotions and a need to ‘make sense’ of the situation” (Weick, 1995; WorksafeBC, 2002, as cited in Lenarduzzi, 2015, p. 254). Yamamoto et al. (2014) also adopted the term “critical incident” to describe situations that challenge school leaders, provoke emotion, and increase leaders’ self-awareness (Yamamoto et al., 2014). For the purposes of the study, the Lenarduzzi (2015) citation will be utilized to define critical incidents (Weick, 1995; WorksafeBC, 2002, as cited in Lenarduzzi, 2015, p. 254).

Badaracco (1997), Avolio and Luthans (2006), in addition to Dahlvig and Longman (2010) utilized the term “defining moments” to describe times that reveal a leader’s values, test commitments, and shape the character of a leader. Dahlvig and Longman (2010) further stipulated that similar terms include “trigger moments” and “moments that matter”. Bennis and Thomas (2002a, 2002b, 2007) and also, Bennis (2009) defined “crucible moments” as traumatic events during leaders’ lives that force them to question their leadership, themselves, and their inner beliefs through self-reflection. According to Bennis (2009) crucibles are moments when leaders become “authors of their lives in the sense of creating new and improved version of themselves” (p. 334). Quinn (2005) used the phrase “a fundamental state of leadership” to describe leadership moments when leaders “draw upon their own values and capabilities” (p. 80). “Wounding” described “the loss of the authentic spirit of the leaders” (Ackerman & Maslin-Ostrowski, 2002, p. 19) and is believed to be an inevitable part of leadership. During a “wounding experience”, a leader encounters dissonance and makes the decision to adapt through finding meaning and his/her authentic self in the “wound” (Ackerman & Maslin-Ostrowski 2002, 2004a, 2004b; Maslin-Ostrowski & Ackerman, 2000). “Wounds” occur due to a variety of situations from disappointments, problems, dilemmas, or crises and they differ based on the individual (Ackerman & Maslin-Ostrowski, 2002, 2004).

Professional critical incidents are an inevitable part of leadership life due to greater pressures for accountability, increased competition, greater diversity in students and staff, increased workload to name a few stressors (Ackerman & Maslin-Ostrowski, 2002; McWilliam & Hatcher, 2007). A professional critical incident is a reminder that leadership consists of successes and failures. Critical incidents make and remake leaders who are courageous enough to participate in self-reflection for personal and professional growth (Ackerman & Maslin-

Ostrowski, 2002, 2004a, 2004b; Badaracco, 1997; Bennis & Thomas, 2002a, 2002b, 2007; Bennis, 2009; Maslin-Ostrowski & Ackerman, 2000; Quinn, 2005; Yamamoto et al., 2014). By acknowledging one's vulnerabilities during a professional critical incident, the leader opens him/herself up to utilizing the virtuosities of others within the system in order to lead more effectively (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b). Critical incidents initially shake leaders' confidence, but through self-reflection leaders analyze the incident and redefining their leadership, values, or beliefs (Yamamoto et al., 2014). If leaders repress their emotion or do not utilize self-reflection after a professional critical incident, their leadership and their inner self suffers (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Maslin-Ostrowski & Ackerman, 2000; Yamamoto et al., 2014). Norman, Avolio & Luthans (2010) concluded the manner in which a leader responds to critical events directly impact followers' trust.

Critical incidents impact individuals differently, one principal can thrive and flourish, while another remains stagnant or bereft of hope, self-efficacy, optimism and resilience (Bennis & Thomas, 2002a). Ackerman & Maslin-Ostrowski (2004a), Badaracco (1997), Bennis & Thomas (2002a, 2002b), and Cooper, Scandura, & Schriesheim, (2005) believe critical incidents impact individuals by forcing them to question themselves, their values, assumptions, motivations, judgements, commitments, character, and ethics. This self-awareness is critical to the professional growth of authentic leaders (Cooper et al., 2005).

Lenarduzzi (2015) found that principals who had to provide leadership during a critical incident reported issues related to trust, communication, and balancing allegiances during school closures. The principals in the study found the critical event to be unparalleled to other events in their lives, challenging, unpredictable, and they all expressed a perception of increased leadership ability and strength to endure further critical events (Lenarduzzi, 2015). Several of the

principals dealt with health issues due to the stress (Lenarduzzi, 2015). Bandura (1997) stipulated critical events have the ability to debilitate immune system functions and the health of individuals due to the stress of the event. “Providing leadership in an intense work milieu is stressful and has potential for deleterious effects” (Lenarduzzi, 2015, p. 254).

Ackerman and Maslin-Ostrowski (2002) and Maslin-Ostrowski and Ackerman (2000) studied critical incidents and their impact on the emotional intelligence of principals. They conceived the term ‘wounded leader’ to describe a principal during a critical incident whom has had a ‘loss of essential spirit’ (Ackerman & Maslin-Ostrowski, 2002, p. 19), had experienced ‘a disorienting’ sense of self (Ackerman & Maslin-Ostrowski, 2002, p. 15), plus chronic stress and a feeling of powerlessness (Ackerman & Maslin-Ostrowski, 2002).

Other than Lenarduzzi’s study, there is limited research on the impact of critical incidents on principals (Ackerman & Maslin-Ostrowski, 2002; Lenarduzzi, 2015; Maslin-Ostrowski & Ackerman, 2000). Multiple researchers agree (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Badaracco, 1997; Bennis & Thomas, 2002a, 2002b, 2007; Bennis, 2009; Cooper et al., 2005; Lenarduzzi, 2015; Maslin-Ostrowski & Ackerman, 2000; Quinn, 2005; Yamamoto et al., 2014) excellent leaders do not let critical incidents determine their outlook or behavior, they use the critical incident to glean life lessons from them in order to increase their professional growth. “Extraordinary leaders find meaning in—and learn from—the most negative events. Like phoenixes rising from the ashes, they emerge from adversity stronger, more confident in themselves and their purpose, and more committed to their work (Bennis & Thomas, 2002a, p. 1).

Summary

In summary, a considerable amount of research indicates the principal's role is filled with an abundance of daily tasks and stressors that take their toll (Perry, 2016) and can lead to the principal experiencing a professional critical incident (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Lenarduzzi, 2015; Maslin-Ostrowski & Ackerman, 2000; Yamamoto et al., 2014). Professional critical incidents can be an opportunity for reflection and professional growth for principals (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Maslin-Ostrowski & Ackerman, 2000; Yamamoto et al., 2014). Through being authentic leaders, utilizing the positive PsyCap components of optimism, hope, resilience and self-efficacy, principals can broaden and build their capacity during professional critical incidents to improve their overall performance to assist principals in goal achievement (Fredrickson & Joiner, 2002). According to Yamamoto et al., "Leadership begins with self-knowledge and a continual practice of reflection in solitude, and in relationship" (2014, p. 179). Understanding the impacts of positive PsyCap on one's performance specifically during professional critical incidents is important for Minnesota secondary school principals so they have optimal opportunity for success in their leadership role.

Chapter III outlines methodology of the study by describing the participants, instruments for data collection and analysis, research design, treatment of data, along with the procedures and timelines for the study.

Chapter III: Methodology

The purpose of the study was to determine the positive psychological capacities (PsyCap) Minnesota secondary school principals reported they utilized to lead authentically during professional critical incidents. The research was designed to provide useful information regarding the impacts of the positive PsyCap of resilience, optimism, hope, and self-efficacy on Minnesota secondary school principals' authentic leadership performances during professional critical incidents.

Chapters I and II provided an outline of the proposed study and a review of current research related to the topics of leadership, authentic leadership, positive PsyCap, and critical incidents. Chapter III delineates the details of a mixed methods study, including the methodology, participants, human subject's approval, instrumentation, procedures and timeline, and methods of analysis.

Research Questions

The following research questions have been developed to address the research problem:

1. What attitudes and behaviors associated with positive psychological capacities did Minnesota secondary school principals report they utilized to lead authentically during professional critical incidents?
2. Which of the positive psychological capacities did Minnesota secondary school principals perceive had the greatest impact on their authentic leadership performances during professional critical incidents?
3. What did Minnesota secondary school principals report as the impacts of the utilization of positive psychological capacities of hope, self-efficacy, resilience, and

optimism on their authentic leadership performances during professional critical incidents?

Participants

Study participants included secondary school principals in Minnesota who were active members of the Minnesota Association of Secondary School Principals (MASSP, 2017). Active MASSP members were an intact group that included men and women who were currently serving in a secondary school as head, associate, or assistant principals (MASSP, 2017). The study was conducted under the assumption that serving as a secondary school principal indicated proficiency; job effectiveness was not explored.

The entire population of active MASSP members who were currently serving as head, associate, or assistant principals in the State of Minnesota were invited to voluntarily participate in the study. MASSP provided organizational support (Appendix E) and reported 1144 active members in Minnesota at the time of the study. Group characteristics were not controlled for gender, age, race, ethnicity, years of experience, geographical location, and other characteristics. A purposive sample technique was utilized for the interviews by selecting cases that were “likely to be ‘information-rich’ with respect to the purpose of a qualitative research study” (Gall, Borg, & Gall, 2007, p. 650). “A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling” (Crossman, 2018, p. 1).

Principals who volunteered for the study were asked to give their informed consent to participate in the altered Psychological Capital Questionnaire (PCQ) (Appendix F). The informed consent statement included the following:

1. Participant understands the basic procedure of the study as written and explained on the consent form.
2. Participant understands the participation is voluntary and may be discontinued at any time.
3. Participant affirms he or she is at least 18 years old.
4. Participant understands that refusal to participate at any time will involve no penalty or loss of benefits to which he or she is entitled.

Human Subject Approval—Institutional Review Board (IRB)

The researcher successfully completed the IRB training required by St. Cloud State University through CITI Training Solution (Appendix A). After the dissertation committee approved the research proposal, the researcher submitted appropriate application materials and received approval (Appendix F).

Instruments for Data Collection and Analysis

The researcher obtained permission to utilize and alter the Psychological Capital Questionnaire (PCQ) created by Luthans, Avolio, and Avey (2014) and published by Mind Garden (Appendices B and C). A definition of critical incident was included in the PCQ survey, and survey statements were altered to focus on critical incidents based on Lenarduzzi's (2015) study of critical incidents and their impact on the principalship. The original 24 survey statements were based on studies conducted by Luthans et al. (2007) regarding an individual's positive psychological state; the construct of hope developed by C. R. Snyder (2000); Bandura's (1997) and Stajkovic and Luthans' (1998) research on self-efficacy; resilience theory drawn from Masten and Reed (2002); Seligman's (1998), Carver and Scheier's (2002), and Youssef and Luthans' (2007) studies regarding optimism.

The modified PCQ instrument selected for data collection was designed to gather data regarding the attitudes and beliefs associated with self-efficacy, hope, resilience, and optimism that Minnesota secondary school principals reported they utilized during professional critical incidents. The researcher also obtained permission from the copyright holders to utilize a remote online use of the PCQ survey (Appendix D). The 24-question altered PCQ survey was in a closed form. Gall et al., (2007) defined a closed form as “a question that permits a response only from among pre-specified response options” (p. 634). Survey participants were asked to identify their level of agreement with each item on a six point Likert scale for rating. The survey questions were grouped as follows:

Efficacy: items 1, 2, 3, 4, 5, 6

Hope: items 7, 8, 9, 10, 11, 12

Resilience: items 13R, 14, 15, 16, 17, 18

Optimism: items 19, 20R, 21, 22, 23R, 24

Each of the four PCQ scale scores is calculated by taking the mean (average) of all items in the scale. The overall PsyCap score is calculated by taking the mean of all the items in the PCQ. It should be carefully noted that some items are Reverse scored (i.e., for these items a “1” is scored as a “6” and a “6” is scored as a “1”; a 2 is a 5 and a 5 is a 2; and a 3 is a 4 and a 4 is a 3). Reversed items are marked with “R” (Luthans et al., 2014, p. 11).

The original PCQ has been shown to have “empirically based discriminant validity”.

(Luthans et al., 2014, p. 11)

To determine the reliability, Luthans et al. (2014) utilized Cronbach's alpha to determine the PCQ was consistently above traditional standards. “The Cronbach's alphas were as follows:

hope (.72, .75, .80, .76); efficacy (.75, .84, .85, .75); resilience (.71, .71., .66, .72); optimism (.74, .69, .76, .79); and overall PysCap (.88, .89, .89, .89) (Luthans et al., 2014, p. 21).

The Center for Statistical Consulting and Research at St. Cloud State University calculated the reliability of the modified PCQ utilizing Cronbach's alpha in order to compare the two instruments. The Cronbach's alphas were found to compute as follows: hope (.864); efficacy (.908); resilience (.772); optimism (.717); and overall PsyCap (.928) indicating high reliability between the original and modified instruments. In addition, an alpha value that was higher than .9 indicated that the sample had high internal consistency and reliability.

Various interview techniques were outlined in Gall et al., 2007. The researcher utilized "the standardized open-ended interview...[which] involves a predetermined sequence and wording of the same set of questions to be asked of each respondent" (p. 247). The interview protocol is attached in Appendix J.

The validity and reliability of the altered survey and interview questions were established through pilot testing and administrative reviews in accordance with guidelines in Gall et al. (2007) to determine issues and necessary refinements prior to implementation. The survey instrument and interview protocol were reviewed by dissertation committee members who offered refinement suggestions based on their considerable experience with research and survey design. A trial administration of the interview process was conducted to ensure the recording equipment, length of the interviews, and the interview questions met the researcher's standards. The survey and interview protocol were administered to a cohort of doctoral students to obtain feedback on clarity of terms, length of survey, and explicitness of questions. The completed survey and interview protocol were refined and then submitted to the dissertation committee for

approval. Having gained the dissertation committee's approval, the researcher then obtained approval from the St. Cloud State University's Institutional Review Board (Appendix F).

The modified PCQ survey was administered through Survey Monkey with the assistance of the Center for Statistical Consulting and Research at St. Cloud State University. The researcher motivated participants to respond to the survey by stating a willingness to share the study results, expressing appreciation for principals' time and responses, and ensuring confidentiality and anonymity (Appendix G). The Consent to Participate in Survey (Appendix H) was included in the correspondence with participants. Their completion of the survey indicated their consent to participate.

Survey participants were asked to offer their contact information if they were willing to volunteer to be interviewed for the study. All participants who chose to offer their contact information were contacted by the researcher to schedule interviews, in a purposeful sample.

Interviewees were assured the confidentiality of their responses and were asked to complete a Consent to Participate in Interview form (Appendix I). The interview, which was recorded, transcribed, and coded, consisted of questions posed by the researcher and the oral responses provided by the respondents. The interviews were administered individually at mutually agreeable times and locations and lasted approximately one hour. The purposes of the interviews were to gather, in the respondents' own words, their recollections of professional critical incidents and the impacts of the positive psychological capacities of resilience, optimism, hope, and self-efficacy on their authentic leadership performances. The researcher established trust and rapport with the interviewees, making it possible to obtain valid, honest, and in-depth responses to the questions. Each interviewee was provided a copy of term definitions (Appendix K) to ensure understanding and consistency in responses. The researcher requested the

opportunity to follow-up with interviewees for clarification and further information, if necessary. A standard set of questions was administered to each interviewee. Responses were assembled, sorted, and coded using both the positive PsyCap and authentic leadership frameworks.

Research Design

The researcher conducted a mixed-methods study in which both “quantitative and qualitative methodologies are combined and used in a single investigation” to understand the problem more fully (Gall et al., 2007, p. 645). During the first stage of the study, quantitative data were gathered through an on-line survey administered to active members of Minnesota Association of Secondary School Principals (MASSP). The purpose of the study was to determine the positive PsyCap that Minnesota secondary school principals reported they utilized to lead authentically during a professional critical incident. In addition, the survey was designed to identify those positive PsyCap Minnesota secondary school principals perceived had the greatest impacts on their authentic leadership performances during professional critical incidents.

Finally, the qualitative phase of the study included interviews of a select group of principals who participated in the online survey and provided contact information stating their willingness to be interviewed. Follow-up interviews were conducted with three Minnesota secondary school principals who consented to be interviewed by the researcher. Through the interview process, the principals’ perceptions of the impact of positive psychological capacities on their authentic leadership during professional critical incidents were explored more fully.

Treatment of Data

After the study survey was conducted, responses were analyzed using descriptive statistics by St. Cloud State University’s Center for Statistical Consulting and Research utilizing the Statistical Package for the Social Sciences (SPSS), Version 22. The altered PCQ surveys

were scored by calculating the means of all items on the scale to obtain the respondents' PsyCap scores. Some items on the survey were reverse scored. Following the interviews, recorded responses of participants were transcribed and coded by the researcher. In order to ensure participants' confidentiality, no names of those interviewed were included in the transcription and identifying characteristics were changed. The data from surveys and interview responses will be securely stored in either a locked file cabinet or on a secure hard drive for a minimum of 3 years.

Procedures and Timeline

The researcher obtained permission to utilize and alter the Psychological Capital Questionnaire (PCQ) created by Luthans, Avolio, Avey, and Norman (2007) and published by Mind Garden (Appendices B and C) in November, 2017. The researcher also obtained permission from the copyright holders in November, 2017 to utilize a remote online use of the PCQ survey (Appendix D).

The survey and interview instrument were field tested by a cohort of doctoral students from St. Cloud State University. The online study survey was created with the assistance of the St. Cloud State University Statistical Center utilizing the online survey tool, Survey Monkey. The Minnesota Association of Secondary School Principals (MASSP) partnered with the researcher and permitted use of their email database to distribute the electronic survey. The Executive Director of the Minnesota Association of Secondary School Principals (MASSP) prepared a cover letter to accompany the survey to lend importance to the study and to encourage participation (see Appendix E). The researcher provided the MASSP the link to the secure survey for email distribution.

The survey was administered electronically employing Survey Monkey on March 8, 2018 (Appendix G). By March 9, eighty-eight responses had been received when the researcher was notified of a typographical error in the headings on the survey. Two of the headings had been transposed. Due to the unreliability of the data gained from the earlier surveys, the researcher asked that the surveys be deleted from the data pool. The Center for Statistical Consulting and Research at St. Cloud State University made corrections to the transposed headings on the survey on March 9. On March 19, 2018, a reminder email was sent by MASSP to encourage participation of its members. The survey was concluded on March 31, 2018. A total of 1144 surveys were distributed to active MASSP members.

Participants were asked to:

1. Read through the cover letter and, if they chose to continue, consent would be assumed;
2. Complete a self-rater on the positive psychological capacities they utilized during professional critical incidents; and
3. Voluntarily provide contact information if interested in participating in a follow up interview.

Seven administrators voluntarily provided contact information to the researcher. All were contacted through email; only three survey participants responded. Follow-up interviews were conducted with the three MASSP members who consented to an interview in June, 2018.

Summary

Through the coupling of quantitative and qualitative research methodologies, the study utilized a mixed-methods design to gain comprehensive data regarding the research questions. Chapter IV will delineate the findings of the study organized by the research questions.

Chapter IV: Results

The purpose of the study was to determine the positive psychological capacities (PsyCaps). Minnesota secondary school principals reported they utilized to lead authentically during professional critical incidents. The research was designed to provide useful information regarding the impacts of the positive PsyCaps of resilience, optimism, hope, and self-efficacy on Minnesota secondary school principals' authentic leadership performances during professional critical incidents. The findings of the study may be beneficial to principals, their professional organizations, and school district leaders in Minnesota by providing insights into how positive PsyCaps can assist principals in achieving successful performances during professional critical incidents.

Chapter IV presents the findings of the study based on the research questions developed by the researcher and derived from related literature. The quantitative and qualitative data from the mixed methods study were analyzed and findings reported in the same sequence as the research questions were presented. Qualitative data from interviews were reported as appropriate with each question.

Findings presented in Chapter Four were organized into the following sections: research design, research questions, sample description, data analysis and a summary of the findings for each research question.

Research Design

For the quantitative component of the study, a survey link to a modified PCQ (Psychological Capacities Questionnaire) was distributed to principals through the MASSP (Minnesota Association of Secondary School Principals) list serv. In addition, the qualitative component of the study was completed through interview with volunteer participants. The survey

and interviews ascertained which of the PsyCaps the participants utilized during professional critical incidents, which they perceived had the greatest impact upon their authentic leadership performances during professional critical incidents, and the impact of hope, self-efficacy, resilience, and optimism on their authentic leadership performances during professional critical incidents.

In accordance with the agreement with MindGarden and the copyright holders of the original PCQ, only three survey questions were allowed to be included in full within the study's findings. The entire survey was not permitted to be used in the dissertation.

The 24 modified PCQ survey statements were in a closed form. Gall et al. (2007) defined a closed form as “a question that permits a response only from among pre-specified response options” (p. 634). Participants who completed the survey were asked to identify their level of agreement with each statement. The Likert scale choices were as follows: (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) somewhat agree, (5) agree, and (6) strongly agree.

The survey statements were grouped as follows:

Efficacy: items 1, 2, 3, 4, 5, 6

Hope: items 7, 8, 9, 10, 11, 12

Resilience: items 13R, 14, 15, 16, 17, 18

Optimism: items 19, 20R, 21, 22, 23R, 24

Each of the four PCQ scale scores is calculated by taking the mean (average) of all items in the scale. The overall PsyCap score is calculated by taking the mean of all the items in the PCQ. It should be carefully noted that some items are Reverse scored (i.e., for these items a “1” is scored as a “6” and a “6” is scored as a “1”; a 2 is a 5 and a 5 is a 2; and a 3 is a 4 and a 4 is a 3). Reversed items are marked with “R”. (Luthans et al., 2014, p. 11)

The interview codes utilized to synthesize comments from respondents can be found in Appendix L. Through the coding process, the researcher was able to distinguish attitudes and behaviors utilized by the select principals as identified by Luthans et al. (2007) and Luthans et al. (2015). Those attitudes and behaviors are essential components of the positive PsyCaps of hope, self-efficacy, resilience, and optimism (Luthans et al., 2007; Luthans et al., 2009). In addition, emergent codes were added when interview participants identified an attitude or behavior related to the research question that had not been previously assigned a code. The qualitative data gained from interviews will be summarized after the quantitative data are discussed.

The study employed descriptive statistics to delineate the characteristics of the distribution of scores from the modified PCQ. Statistical analysis was completed by the Saint Cloud State University Center for Statistical Consulting and Research utilizing the Statistical Package for the Social Sciences (SPSS), Version 22. The researcher utilized coding worksheets to synthesize respondent comments into categories.

Research Questions

1. What attitudes and behaviors associated with positive psychological capacities did Minnesota secondary school principals report they utilized to lead authentically during professional critical incidents?
2. Which of the positive psychological capacities did Minnesota secondary school principals perceive had the greatest impact on their authentic leadership performances during professional critical incidents?
3. What did Minnesota secondary school principals report as the impacts of the utilization of positive psychological capacities of hope, self-efficacy, resilience, and

optimism on their authentic leadership performances during professional critical incidents?

Description of Sample

The study invited all 1144 active members of the Minnesota Association of Secondary School Principals (MASSP) who were serving as head, associate, or assistant principals to participate in the survey. The study was conducted under the assumption that serving as a secondary school principal indicated job proficiency; neither job effectiveness nor the extent of authentic leadership proficiency was explored. Group characteristics were not controlled for gender, age, race, ethnicity, years of experience, geographical location, or other characteristics.

After the responses were analyzed it was determined that out of the 151 responses received, 63 were valid and 88 were not valid and, hence, were discarded due to incomplete responses or inaccurate data. The return rate for valid responses was 5.51%.

A purposeful sample was utilized for the study's interview component. Seven respondents voluntarily provided contact information in the survey and agreed to participate in a three-question follow-up interview. All seven respondents were contacted by the researcher requesting an interview time in June; three survey participants responded. The three were from diverse geographical settings (urban, suburban, and rural) and positions (assistant principal and principal). Their buildings also ranged in size from small (approximately 200 students), medium (approximately 680 students) to large (approximately 2200 students).

Data Analysis

Analysis of the data was completed by the St. Cloud State University Center for Statistical Consulting and Research utilizing the Statistical Package for the Social Sciences

(SPSS), Version 22. Descriptive statistics were employed to analyze the data. Frequencies and means are reported for the 24 statements from the modified PCQ survey.

In the survey, participants were asked to rate their agreement on a Likert scale with ratings of 1 through 6 describing the range of responses from strongly disagree to strongly agree. The statements on the modified PCQ survey focused on the four psychological capacities utilized during critical incidents. The researcher established that mean scores at or above a 3.50 would equate to a high level of agreement and a personal strength. Mean scores of below 3.50 were considered to a low level of agreement and requiring further growth. Internal consistency of the instrument was examined utilizing Cronbach's alpha.

Interview questions were chosen to provide additional details pertaining to principals' use of positive PsyCaps during critical incidents that impacted their authentic leadership from the three interviewed respondents. The questions inquired about respondents' attitudes and behaviors during a critical incident, their perceptions of the impact of positive PsyCaps on their authentic leadership during a critical incident, and which positive PsyCaps had the greatest impact on their authentic leadership during a critical incident.

Research question one. What attitudes and behaviors associated with positive psychological capacities did Minnesota secondary school principals report they utilized to lead authentically during professional critical incidents?

Research question one was answered through data analysis of the modified Psychological Capital Questionnaire (PCQ) and through interviews with select Minnesota secondary school principals.

To answer research question one, the participants' survey responses were analyzed, first, by interpreting the mean and standard deviation of each of the positive PsyCaps of efficacy, hope, resilience, and optimism. The three highest mean score responses from all four capacities are also discussed, along with areas of disagreement with each positive psychological capacity. Tables 4.1 and 4.2 report the frequency data from responses and the mean for each survey statement. Tables 4.1 and 4.2 were organized by the order of the PCQ statements for ease of understanding.

Table 4.1 delineates the frequency data and mean scores of Self-Efficacy and Hope as indicated by respondents on the modified PCQ survey. Luthans et al. (2007) denoted self-efficacy as a leader's confidence in his/her ability to control one's motivation, behavior, and social environment to successfully complete a task. Self-efficacy is based upon the belief in one's abilities to achieve a goal or an outcome. Efficacy statements are grouped in the summary statements of PCQ items 1 through 6.

Hope is defined as a "positive motivational state based on an interactively derived sense of successful (a) agency (goal directed energy) and (b) pathways (planning to meet goals)" (Snyder et al., 1991, p. 287). Hope statements are grouped in the summary statements of PCQ items 7 through 12.

Table 4.1

Principals' Perceptions of Self-Efficacy and Hope Frequency Distribution and Mean Scores

(n = 63)

Summaries of Survey Statements	Frequencies						Total	Mean
	SD	D	SWD	SWA	A	SA		
1. Confidence in one's analytical abilities during critical incidents	2	0	0	4	25	32	63	5.3175
2. Confidence in ability to communicate building needs to superordinates during critical incidents	2	0	0	2	33	26	63	5.2540
3. Confidence in ability to be successful communicating strategy regarding critical incidents	2	0	0	3	29	29	63	5.2857
4. Confidence in goal selection during critical incidents	2	0	0	8	34	19	63	5.0476
5. Confidence in ability to communicate with stakeholders during critical incidents	1	0	2	10	22	28	63	5.1587
6. Confidence in presentation skills to colleagues during critical incidents.	1	0	1	8	25	28	63	5.2222
7. Ability to proactively generate alternate workable routes to goals during critical incidents	2	0	1	15	26	19	63	4.9048
8. Determination to achieve expected or desired outcome during critical incidents	1	5	5	16	26	10	63	4.4444
9. Tendency to have creative waypower during critical incidents	1	1	3	11	29	17	63	4.8413
10. Ability to maintain a positive motivational state despite critical incidents	1	0	1	6	36	19	63	5.1111
11. A sense of successful agency and pathways during critical incidents	1	3	4	16	30	9	63	4.5556
12. Ability to pursue goals despite critical incidents	1	0	2	19	30	11	63	4.7460

Note. **Bolded** statements are the highest ranked survey statements based on mean. Likert-scaled responses from survey questions 1 through 12, (SD) strongly disagree = 1, (D) disagree = 2, (SWD) somewhat disagree = 3, (SWA) somewhat agree = 4, (A) agree = 5, and (SA) strongly agree = 6.

Within the capacities of self-efficacy and hope, principal respondents rated themselves above a mean score of 3.50 on all statements. The highest rated statements on the survey are statements 1-3 within the self-efficacy construct. Confidence in one's analytical abilities during critical incidents was the highest rated statement with 57 of 63 or 91.4% of respondents rating it

as agree or strongly agree, resulting in a mean score of 5.3175. Table 4.1 data reveal all 6 self-efficacy statements have a mean above 5.0.

The highest rated statement for the construct of hope is statement 10, the ability to maintain a positive motivational state despite critical incidents. Of 63 respondents, 55 or 87.3% rated the statement as agree or strongly agree, resulting in a mean score of 5.1111.

The data were confirmed during interviews. All three interviewees indicated confidence that their abilities to analyze and communicate needs during critical incidents were crucial in meeting specific goals or outcomes. Interviewee A stated the importance of training and experience to increase confidence in analytical skills since "... you learn and grow from that, [this] then results in you, hopefully, making better decisions." Interviewee B indicated "...remaining calm and conveying that confidence and calmness" when dealing with and communicating about a critical incident is crucial. Specifically, "who needs to know what, like a communication plan How do we manage that, and what decisions or steps" need to be taken. Interviewee C conveyed the "...need to be clear about what we are doing" to staff during critical incidents.

All three also reported that confidence allowed them to be transparent in their decisions and that reflection was very important to build the necessary confidence for future critical incidents, two of the key behaviors of authentic leadership. According to Harter (2002), the term authenticity refers to:

owning one's personal experiences, be they thoughts, emotions, needs, wants, preferences, or beliefs, processes captured by the injunction to know oneself and further implies that one acts in accord with the true self, expressing oneself in ways that are consistent with inner thoughts and feelings. (p. 382)

It is this lived experience and the meaning made through self-reflection that Shamir and Eilam (2005) posited was Harter's (2002) meaning in stating "owning one's personal experiences". Interviewee B indicated s/he "would rather be open and let people know, be transparent" with decisions and actions. Interviewee B spoke specifically about communication by stating, "I think that thoughtful decision making is really a lot about knowing yourself and managing yourself by being objective and not reacting transparency and admitting mistakes ... not being afraid to analyze something that didn't go well that you are leading."

Although still rated above average, several statements in each capacity were rated lower in comparison to other statements. Statement 4, addressing the capacity of confidence with goal setting during critical incidents, was the lowest rated statement for self-efficacy with a mean of 5.0476 and 55 of 63 or 84.1% of responding principals reporting either agreement or strong agreement. Statement 8 was the lowest rated statement for hope with a mean score of 4.4444 and 36 of 63 or 57.1% of respondents reporting either agreement or disagreement.

Interviews also confirmed these data; none of the principals interviewed specifically spoke about their confidence pertaining to goal setting during critical incidents (statement 4) as a priority. In reference to statement 8, Interviewee A did speak about "eliminating barriers" and "working really hard" to achieve a certain outcome with their team.

In summary, responding principals' perceptions of their self-efficacy and hope during critical incidents indicated some disagreement concerning their determination to achieve desired outcomes or goals during a critical incident. Principal respondents strongly agreed that analyzing situations, communicating building needs to superordinates, and successfully communicating strategies were abilities in which they felt confident as they led during critical incidents. The data also exhibited an above average agreement regarding hope during critical incidents as indicated

by the mean scores. Principal respondents reported having a high regard for both efficacy and hope capacities to assist their authentic leadership during critical incidents.

Table 4.2 outlines the frequency data and mean scores of resilience and optimism as indicated by respondents on the modified PCQ survey. For the study, resilience, as it is applied to the workplace, is defined as the “positive psychological capacity to rebound, to bounce back from adversity, uncertainty, conflict, failure; or even positive change, progress, and increased responsibility” (Luthans, 2002a, p. 702). Resilience statements are grouped within the summary statements of PCQ items 13 through 18.

Luthans et al. (2014) defined optimism as “having a positive outcome, outlook or attribution, including positive emotions and motivation, while maintaining a realistic outlook” (p. 4). Optimism statements are grouped within the summary statements of PCQ items 19 through 24.

Table 4.2

Principals' Perceptions of Resilience and Optimism Frequency Distribution and Mean Scores

(n = 63)

Summaries of Survey Statements	frequencies						Total	Mean
	SD	D	SWD	SWA	A	SA		
*13. Inability to rebound after critical incidents	11	25	13	10	2	2	63	4.4286
14. Ability to rebound after difficulties	1	0	0	9	38	15	63	5.0317
15. Ability to be independent during critical incidents	1	2	4	6	32	16	61	4.8689
16. Ability to have a positive self-perception during critical incidents	2	1	4	12	31	13	63	4.7143
17. Ability to learn and develop during critical incidents	1	0	1	7	32	22	63	5.1429
18. Ability to deal with increased responsibilities during critical incident	1	0	1	2	14	30	63	4.8413
19. Tendency to have a positive outlook during critical incidents	1	1	4	12	30	15	63	4.8095
*20. Tendency towards a negative outlook during critical incidents	5	22	20	8	8	0	63	4.1270
21. Ability to have a positive motivation during critical incidents	1	1	4	19	25	13	63	4.6667
22. Tendency to believe in positive outcomes during critical incidents	1	3	5	11	27	15	62	4.6935
*23. Tendency to expect negative outcomes during critical incidents	20	30	5	3	3	2	63	4.8730
24. Belief that every critical incident has an advantage	1	0	0	23	28	11	63	4.7460

Likert-scaled responses from survey questions 1 through 12, (SD) strongly disagree = 1, (D) disagree = 2, (SWD) somewhat disagree = 3, (SWA) somewhat agree = 4, (A) agree = 5, and (SA) strongly agree = 6. The * denotes reverse scoring where (SA) strongly agree = 1, (A) agree = 2, (SWA) somewhat agree = 3, (SWD) somewhat disagree = 4, (D) disagree = 5, and (SD) strongly disagree = 6

In the capacities of resilience and optimism, responding principals rated themselves above a mean score of 3.50 on all statements. The highest rated statement (17) was the ability to learn and develop during critical incidents. A total of 54 of 63 or 85.7% agreed or strongly agreed with the statement, resulting in a mean score of 5.1429. Another area of agreement

regarding the capacity of resilience was the ability to rebound after critical incidents. Data revealed 53 of 63 or 84.1% agreed or strongly agreed with the statement.

The data were confirmed through the interview process. Interviewee C expressed that the critical incident was “a good learning thing for me” and was able to articulate a plan for future critical events. Interviewee B agreed, stating “through the years, I realized, and learned” from “my own learning journey, my own mistakes.”

Two of the three reverse scored statements on the PCQ, statements 13 and 20, exhibited the least amount of agreement among responding principals as evidenced through their mean scores. Resilience statement 13, regarding respondents’ inability to rebound after critical incidents, was ranked the lowest for the resilience capacity with a mean score of 4.4286. Table 4.2 data indicate that 36 of 63 respondents, or 57.1%, rated the statement with a strongly disagree or disagree. Furthermore, the tendency toward a negative outlook during critical incidents was rated the lowest for the optimism capacity with a mean score of 4.1270. Twenty-seven of 63 or 42.9% of respondents strongly disagreed or disagreed with the statement. Over all, optimism received the lowest mean scores among all four capacities.

The data were confirmed by the interview process. Interviewee A stated: “if something doesn’t go well, I gotta keep reminding myself, you have to have a positive attitude.” Interviewee B spoke of the importance of self-talk when he or she was “too hard on” himself or herself which was viewed as a theme in their professional life. Interviewee B’s reflection had led to a practice of “reminding myself that I tend to do that when I may be losing hope.” This practice ensured Interviewee B kept a positive outlook on experiences and critical incidents.

In summary, principals rated their ability to learn and develop during critical incidents and the ability to rebound during critical incidents as positive leadership abilities to utilize during

critical incidents. The capacities of resilience and optimism demonstrated agreement among principals regarding the abilities they associated with positive PsyCaps to lead authentically during professional critical incidents.

Research question two. Which of the positive psychological capacities did Minnesota secondary school principals perceive had the greatest impact on their authentic leadership performances during professional critical incidents?

Data for research question two were gathered by analyzing the mean scores and standard deviation calculations for the four positive PsyCaps of self-efficacy, hope, resilience, and optimism. Positive PsyCaps with mean scores of 3.50 and higher were considered by the researcher to be of the greatest impact on authentic leadership performance during professional critical incidents.

Table 4.8 data reveal the mean scores and standard deviations regarding participant responses for positive PsyCaps impact on critical incidents.

Table 4.3

Mean Scores for Psychological Capacities Impact on Critical Incidents

Capacity	N	Mean	SD
Efficacy	63	5.2143	.80122
Hope	63	4.7672	.79568
Resilience	61	4.8415	.70411
Optimism	62	4.6586	.66285

Efficacy, hope, resilience, and optimism all had mean scores above 3.50 as indicated by survey participants' ratings. Self-efficacy was rated the highest psychological capacity with a

mean score of 5.2143. The remaining positive PsyCaps were ranked in order on the basis of their mean scores: resilience (4.8415), hope (4.7672), and optimism (4.6586).

These data were confirmed through interviews. All three interviewees stated that self-efficacy had the greatest impact upon their authentic leadership during a critical incident. All interviewees agreed that all four positive PsyCaps were important for successful authentic leadership during critical incidents, but placed greater emphasis on self-efficacy. Interviewee A stated, “For me, they are all critical. Also, that we instill them in others is absolutely...critical.” Interviewee A prioritized self-efficacy during critical incidents because “...you can’t flinch. You’ve got to be super strong and confident in what you are doing...”

Both interviewee A and C stated that self-efficacy had the greatest impact upon their authentic leadership performances during critical incidents. Interviewee C had received feedback from staff about his/her ability to stay calm during critical incidents. He/she believed that this “comes with...confidence that this is not the end of the world. The sky is not falling and we will get through this...I think that having a calm confidence...does a lot for any of those situations.” Interviewee B added resilience to self-efficacy as the most important capacities, stating the following:

resilience and self-efficacy kind of have to work together. They are kind of the proactive and reactive. The pre and post. The self-efficacy is more of the front end, how you operate.... But then, resilience you have to have on this job or you won’t survive. And you have to, not only for yourself personally, but you have to build the capacity of others to be resilient.

Interviewee B also stated confidence was built by “staying true to myself, true to what I believe and what I think will get the results” to be successful. In direct correlation with Avolio’s and

Gardner's (2005) assertion that "The concept of authenticity has its roots in Greek philosophy ('To thine own self be true')" (p. 319). Maslow (1971, 1975) and Rogers (1959, 1963) also discussed the development of fully functioning or self-actualized persons, people with an in-depth understanding of themselves and their lives. Due to their self-actualization, they are free from expectations of others and are able to make rational decisions based on their situational and self-awareness (Maslow, 1971, 1975; Rogers, 1959, 1963).

In summary, principal respondents value all four positive PsyCaps as evidenced through their average mean scores and interviews comments. Self-efficacy was the highest ranked positive PsyCap by survey participants and interviewees. Interviewees all agreed that self-efficacy had the greatest impact upon their authentic leadership performances during critical incidents.

Research question three. What did Minnesota secondary school principals report as the impacts of the utilization of positive psychological capacities of hope, self-efficacy, resilience, and optimism on their authentic leadership performances during professional critical incidents?

Interviewee A reported the impact of the utilization of positive psychological capacities as creating "a positive attitude towards kids. They are my kids and I am going to do everything I can to get them through.... No matter what it takes." This principal further posited "You have to be really strong in your beliefs" and "eliminate any barriers" in keeping hope alive for students and staff. The interviewee further believed this was accomplished through reflective practices, a key component of authentic leadership. Interviewee A also offered, "I don't need my tires pumped very much, so I always look at it like what did I do wrong? How could I make it better?"

Interviewee C agreed stating that positive PsyCaps assisted personal reflection on critical incidents which were accomplished "sometimes in faculty meetings or our teacher leadership

meetings, just kind of thinking out loud through things so teachers can see more into my philosophy.” The interview subject also discussed the importance of reflection through writing after critical incidents, stating that journaling is one of his or her goals as a reflective practitioner.

The interview subjects also stressed the importance of principal support networks or principal PLC’s to assist personal growth during critical incidents. Interviewee C expressed true appreciation for the advice and resources given from another colleague during a critical incident and stated, “it was really good that I had support like that.” Whereas Interviewee A’s support network speaks “very often and they are super supportive.”

All three interviewees described their critical incidents as events that created strong concerns for them professionally and personally, but they were able to survive the pressures of the incidents through the use of PsyCaps and conveyed a sense of increased confidence and ability to lead their educational communities due to the critical incident experiences.

Interviewee B believed positive PsyCaps “built my confidence over the whole experience...it further defined me as a leader and to know myself on a deeper level...” and positive PsyCaps have “an impact on how I decide to respond or guide people.”

The three interviewees emphasized the importance of interpersonal relations as well as managing appropriate reactions and actions related to their critical incidents. Interviewee B specifically stated, “It is really a lot about knowing yourself and managing yourself and being objective and not reacting” before the facts are acquired. The subject further posited, “I need to quantify things because when people are in that state...I work with them to quantify things and acknowledge how they are feeling.”

In summary, all three interviewees reported a positive impact of PsyCaps on their authentic leadership performances during critical incidents. Their critical incident experiences

were learning and growth opportunities for the authentic leadership capacities of all subjects. The majority of those interviewed, 2 out of 3, believed the practice of reflection also positively impacted their leadership performances.

Summary

In summary, principal respondents strongly agreed that analyzing situations, communicating building needs to superordinates, and successfully communicating strategies were the abilities with which they were most confident in as they led during critical incidents. Mean scores also revealed an above average agreement regarding hope during critical incidents, indicating that principals have a high regard for both self-efficacy and hope capacities to assist their authentic leadership during critical incidents. Principal respondents rated the ability to learn and develop and the ability to rebound during critical incidents as positive leadership attributes to utilize during critical incidents. Resilience and optimism were capacities on which principals agreed regarding the abilities they associated with positive PsyCaps to lead authentically during professional critical incidents.

The data established that responding principals value all four positive PsyCaps during critical incidents as evidenced through the above average mean scores and interviews. Self-efficacy was the highest ranked positive PsyCap during critical incidents by survey participants and interviewees. Interviewees all agreed that self-efficacy had the greatest impact upon their authentic leadership performances during critical incidents. All three interview subjects reported a positive impact of PsyCaps on their authentic leadership performances during critical incidents through creating a positive attitude towards students, strong understanding of core values and beliefs, and increased confidence in their abilities to lead their educational communities. The

majority of interview subjects believed the practice of reflection would also positively impact their leadership performances in future critical incidents.

Chapter Five presents the conclusions, discussion, limitations, and recommendations for further study and practice. The chapter will link the study's findings to the current review of literature, draw conclusions and offer recommendations on positive PsyCaps select Minnesota secondary principals believed impacted their authentic leadership performances during critical incidents, and recommendations for further study.

Chapter V: Conclusion

As leaders, principals face unparalleled challenges and professional critical incidents as they attempt to adjust to increasing rates of change (Hannah et al., 2008; Lenarduzzi, 2015). Professional critical incidents are an inevitable part of leadership life due to greater pressures for accountability, increased competition, greater diversity in students and staff, and increased workload to name a few stressors (Ackerman & Maslin-Ostrowski, 2002; McWilliam & Hatcher, 2007).

For the purposes of the study, a professional critical incident is “defined as an interruption in the expected behaviours and developments in one’s life that produces strong emotions and a need to ‘make sense’ of the situation” (Weick, 1995; WorksafeBC, 2002, as cited in Lenarduzzi, 2015, p. 254). A professional critical incident is a reminder that leadership consists of successes and failures. Critical incidents make and remake leaders who are courageous enough to participate in self-reflection for personal and professional growth (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Badaracco, 1997; Bennis & Thomas, 2002b, 2007; Maslin-Ostrowski & Ackerman, 2000; Quinn, 2005; Yamamoto et al., 2014). Critical incidents initially shake leaders’ confidences, but through self-reflection leaders analyze those incidents and redefine their leadership, values, or beliefs (Yamamoto et al., 2014). If leaders repress their emotions or do not utilize self-reflection after a professional critical incident, their leadership and their inner selves suffer (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Maslin-Ostrowski & Ackerman, 2000; Yamamoto et al., 2014).

Avolio et al. (2004), along with Jensen and Luthans (2006), believed authentic leaders possess a considerable amount of the positive PsyCaps (psychological capacities) of self-efficacy, hope, optimism, and resilience to aid in overcoming challenges and critical incidents.

When faced with a professional or personal critical incident, those individuals who are highly resilient with an ability to bounce back and are also self-efficacious, highly optimistic, and highly hopeful, will be motivated to persevere, overcome, and generate alternate pathways to meet their goals (Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010).

Change not only tests principals' knowledge and competencies, but also their confidence regarding their authentic leadership capabilities and PsyCaps in order to meet the increasing requirements of their positions (Avolio & Luthans, 2006; Hannah et al., 2008). Luthans and Avolio (2003) as well as Avolio and Gardner (2005) described authentic leadership as a process that elicits an individual's positive PsyCaps within an organizational framework that culminates in increased self-awareness and positive self-development of leaders. Luthans et al., (2007) argued that authentic leaders can become more authentic through utilizing PsyCap development efforts. If principals' professional development efforts are focused on the positive capacities of hope, self-efficacy, resilience, and optimism under the core construct of PsyCaps, such efforts may help them cope with stress, enhance performance, and minimize turnover (Luthans, 2012).

The study provides insights into the positive PsyCaps of hope, self-efficacy, resilience, and optimism that a sample of Minnesota secondary school principals perceived they utilized to lead authentically during professional critical incidents.

Chapter V discloses a summary of the study and conclusions gleaned from the data reported in Chapter 4. The researcher delineates the findings as they relate to literature and to the research questions. Finally, Chapter 5 contains recommendations for further research and for professional practice.

Research Purpose

The purpose of the study was to determine the positive psychological capacities a sample of Minnesota secondary school principals perceived they utilized to lead authentically during professional critical incidents. The study's questions were designed to provide useful information regarding the impact of the positive psychological capacities of resilience, optimism, hope, and self-efficacy on select Minnesota secondary school principals' authentic leadership performances during professional critical incidents. The findings of the study may be beneficial to principals, their professional organizations, and school districts in Minnesota to provide insights into how positive psychological capacities assisted respondent principals in achieving successful performances during their professional critical incidents to better understand the impact of PsyCaps and authentic leadership during professional critical incidents.

The purpose of the study was achieved through a mixed methodology utilizing a survey and interviews of a sample of Minnesota secondary school principals regarding the impact of positive PsyCaps on their authentic leadership performances during professional critical incidents.

Research Questions

The data were analyzed and findings organized according to each of the following research questions:

1. What attitudes and behaviors associated with positive psychological capacities did Minnesota secondary school principals report they utilized to lead authentically during professional critical incidents?

2. Which of the positive psychological capacities did Minnesota secondary school principals perceive had the greatest impact on their authentic leadership performances during professional critical incidents?
3. What did Minnesota secondary school principals report as the impacts of the utilization of positive psychological capacities of hope, self-efficacy, resilience, and optimism on their authentic leadership performances during professional critical incidents?

Conclusions

This section addresses each research question and includes links to recent research and observations from the researcher regarding the study's results.

Research question one. The study results revealed the attitudes and behaviors associated with positive psychological capacities (PsyCaps) select Minnesota secondary school principals perceived they utilized to lead authentically during a critical incident. All statements on the modified PCQ (Psychological Capital Questionnaire) received mean scores of greater than 4.10 on a 6-point Likert scale, indicating a high degree of agreement. Regarding self-efficacy, respondent principals rated most highly the following abilities in overcoming critical incidents: analyzing solutions (5.3175), successfully communicating strategies (5.2857), and communicating building needs to superordinates (5.2540). Regarding hope, respondent principals rated most highly their ability to maintain a positive motivational state (5.1111). Regarding resilience, respondent principals rated most highly their ability to learn and develop (5.1429) and rebound after difficulties (5.0317) during critical incidents. While receiving mean scores of greater than 4.1000, respondent principals rated the following statements the lowest: a

tendency towards a negative outlook during critical incidents (4.1270) (optimism) and the inability to rebound after critical incidents (4.4286) (resilience).

The study's results correlate with Bayramoğlu and Şahin's 2015 research which found self-efficacious people have five common characteristics: 1) they strive for high goals and engage in difficult tasks voluntarily, 2) they enjoy and thrive on challenge, 3) they have an extraordinary amount of initiative, 4) they are willing to put in the time and effort to meet their goals, and 5) they do not quit when facing barriers. The principals interviewed in the study agreed with the results from the study conducted by Bayramoğlu and Şahin (2015). For example, Interviewee A spoke of "eliminating barriers" and "doing whatever it takes" to reach goals during critical incidents. Interviewee B stated he or she "welcomed that challenge" and was "willing to put the time in" to overcome the critical incident.

Peterson and Byron (2007) posited that executives who exhibit high hope produce more and better quality solutions to work-related problems or issues. "Rather than doubting themselves, they will consider possible obstacles and use these perceived obstacles to develop higher quality solutions" (Peterson & Byron, 2007, p. 789-790). The capacity to create multiple pathways around obstacles to achieve goals motivated leaders with high hope according to Luthans and Youssef (2004). Interviewee C indicated the need to be "a reflective practitioner...to adjust to meet the needs" of the situation at hand during critical incidents.

All three interviewees reported that confidence allowed them to be transparent in their decisions and that reflection was very important to build the necessary confidence for future critical incidents, two key behaviors of authentic leadership. According to Harter (2002), the term authenticity refers to

owning one's personal experiences, be they thoughts, emotions, needs, wants, preferences, or beliefs, processes captured by the injunction to know oneself and further implies that one acts in accord with the true self, expressing oneself in ways that are consistent with inner thoughts and feelings. (p. 382)

It is this lived experience and the meaning acquired through self-reflection that Shamir and Eilam (2005) asserted that Harter (2002) meant by "owning one's personal experiences". Interviewee B indicated s/he "would rather be open and let people know, be transparent" with decisions and actions. Interviewee B spoke specifically about communication by stating, "I think that thoughtful decision making is really a lot about knowing yourself and managing yourself by being objective and not reacting transparency and admitting mistakes...not being afraid to analyze something that didn't go well that you are leading."

Study findings aligned with other researchers in the capacity of resilience. Positive psychology proponents characterized resilience as a positive coping mechanism when encountering a significant critical incident (Masten et al., 2009; Luthans et al., 2007). Youssef and Luthans (2007) argued that resilience is not only a reactive trait but is also a proactive one due to an individual's potential for learning and growth through overcoming obstacles or critical incidents. Interview participants stated they became more resilient each time they "bounced back" from a critical incident, confirming the research of Luthans et al. (2007) and Richardson (2002). Fredrickson and Joiner (2002) emphasized positive emotions have an upward spiraling effect. Positive emotions, like laughter, can reduce levels of stress following a critical incident (Bonanno, 2004). All three interview subjects expressed agreement. Interviewee A stated, "We laugh an awful lot...and so there is a real team spirit" during critical incidents. Further, the subject proudly proclaimed "this team is really probably the highest functioning in terms of

having a positive culture working like doing what you need to do to help the other person out.” During a critical incident, Interviewee A stated, “We kind of bounce off out of it” and “you learn and grow from” the critical incident and “hopefully, make better decisions.”

Snyder’s (1994) and Seligman’s (2006) research on optimism, which found that individuals who were high in optimism mentally approached failures in distinct ways to distance themselves from and lessen the impact of failure, was confirmed in interviews. Interviewee A stated “if something doesn’t go well, I gotta keep reminding myself, you have to have a positive attitude.” The other interview subjects concurred. The researcher and Luthans and Youssef (2004) believed optimism can protect leaders from the negative emotions of depression, guilt, and despair. Allison (2011) stated, “In the face of harsh realities and brutal truths, resilient leaders are optimistic but not naive” (p. 81). Norman et al. (2010) surmised realistic optimism is correlated with having positive outlooks and positive perceptions of events. The researcher surmised that principals’ realistic optimism was one reason they were able to learn and grow from their critical incidents.

Research question two. The study results disclosed Minnesota secondary school principals’ perceptions about the positive PsyCap which had the greatest impact on their authentic leadership performances during professional critical incidents. Respondent principals valued all four positive PsyCaps as evidenced through the above average mean scores and interviews. Self-efficacy was the survey participants’ and interviewees’ highest ranked positive PsyCap. Interviewees all agreed that self-efficacy had the greatest impact upon their authentic leadership performances during critical incidents, yet stated that all PsyCaps were important for success during critical incidents.

The study's results correlate with Bandura's (1997) research which concluded individuals high in self-efficacy were more resilient to adversity. Hannah et al. (2008) declared leadership efficacy is correlated with the degree of confidence one has in their knowledge and competence with leading others. "Effective leadership requires high levels of agency (i.e., deliberately or intentionally exerting positive influence) and confidence" (Hannah et al., 2008, p. 1). Hannah and Luthans (2008) proposed that the positive self-efficacy PsyCap supports leadership engagement and adaptability across challenges due to "the drive to create the agency needed to pursue challenging tasks and opportunities successfully" (Hannah et al., 2008, p. 1). Self-efficacy was also found to have a positive impact on work-related performance of leaders (Bandura, 2009; Bandura & Locke, 2003; Luthans et al., 2007; Stajkovic & Luthans, 1998). Bandura and Locke (2003) found that self-efficacy affects individuals' self-perceptions by whether or not they think in a self-enhancing or self-debilitating manner, their susceptibility to stress and depression, and the quality of choices they make at critical points.

Numerous researchers suggested the positive impact of all four PsyCaps on leadership performance. Luthans et al. (2007) argued that four PsyCap components together predict achievement and satisfaction better than any one of the individual components on its own. Fredrickson and Joiner (2002) offered with their "broaden and build" theory that positive emotions generate "upward spirals" of broader thinking, performance, and well-being. The factors of hope, optimism, resilience, self-efficacy work together in a broadening fashion to maintain motivation and pursuit of organizational goals (Fredrickson and Joiner, 2002; Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010). When faced with a critical incident, if individuals are highly resilient with an ability to bounce back and are self-efficacious, highly optimistic, and highly hopeful, they will be motivated to persevere and overcome and generate

alternate pathways to meet their goals (Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010). The broadening of the factors of hope, self-efficacy, resilience, and optimism lead to strong performance in high PsyCap individuals (Luthans et al., 2007; Luthans et al., 2008).

During the researcher's time with the interviewees, it was visually evident to the researcher the interviewees were all deeply affected—both professionally and personally—by their critical incidents. The researcher witnessed the following emotional reactions of the interview subjects to their critical incident: tears, lengthy pauses, and stammering. Despite having such emotional reactions, all interviewees were able to project positive outlooks for themselves and their educational communities. Interviewee A stated, "If something doesn't go well, I gotta keep reminding myself, you have to have a positive attitude." Whereas Interview B stipulated, "...remaining calm and conveying that confidence and calmness" because it is all about "knowing yourself and managing yourself" to successfully "manage the situation". Interviewee B specifically spoke about the need to "focus on the inside and the outside will take care of itself". Finally, Interviewee C stated that staff indicated they were impressed with the calm demeanor Interviewee C exhibited during multiple critical incidents. Interviewee C responded, "I think that comes with just confidence that this is not the end of the world. The sky is not falling and we will get through this and I think this does a lot for de-escalating situations."

Research question three. The study results divulged the impact of the utilization of the positive PsyCaps of hope, self-efficacy, resilience, and optimism on the authentic leadership of select Minnesota secondary school principals during critical incidents. All three interview subjects reported the positive impact of PsyCaps on their authentic leadership performances during critical incidents through creating positive attitudes towards students, strong understanding of core values and beliefs, and an increased confidence in their abilities to lead

their educational communities. The majority of subjects believed the practice of reflection also positively impacted their leadership performances for future critical incidents. Two of the three interview subjects participated in formal PLC processes and utilized their PLCs as support and for reflection during critical incidents.

Interviewee B stated confidence was built by “staying true to myself, true to what I believe and what I think will get the results” to be successful. In support of Avolio’s and Gardner’s (2005) argument that “The concept of authenticity has its roots in Greek philosophy (‘To thine own self be true’)” (p. 319), Maslow (1971, 1975) and Rogers (1959, 1963) also discussed the development of fully functioning or self-actualized persons, people with an in-depth understanding of themselves and their lives. Due to their self-actualization, they are free from expectations of others and are able to make rational decisions based on their situational and self-awareness (Maslow, 1971, 1975; Rogers, 1959, 1963).

When faced with a critical incident, if individuals are highly resilient with an ability to bounce back and are self-efficacious, highly optimistic, and highly hopeful, they will be motivated to persevere and overcome and generate alternate pathways to meet their goals (Luthans et al., 2007; Luthans et al., 2008; Norman et al., 2010). The broadening of the factors of hope, self-efficacy, resilience, and optimism lead to strong performance in high PsyCaps individuals (Luthans et al., 2007; Luthans et al., 2008). According to Norman et al. (2010), PsyCaps positively impacted leadership effectiveness during critical incidents.

Discussion

The study results found that Minnesota secondary school principals value all four positive psychological capacities as evidenced by the above average mean scores of the modified Psychological Capital Questionnaire (PCQ). Both survey respondents and interviewees highly

value self-efficacy as the positive psychological capacity (PsyCap) with the greatest impact on their performances during critical incidents. The researcher is led to believe this is because self-efficacy was also found to have a positive impact on work-related performance of leaders (Bandura, 2009; Bandura & Locke, 2003; Luthans et al., 2007; Stajkovic & Luthans, 1998). Bandura and Locke (2003) found that self-efficacy affects individuals' self-perceptions by whether they think in a self-enhancing or self-debilitating manner, their susceptibility to stress and depression, and the quality of choices they make at critical points.

The interviewees' responses led the researcher to surmise that the interviewees accessed their core beliefs, attitudes, and values to ensure authentic leadership performances when faced with professional critical incidents. Participation in principal PLCs or support networks may be reasons interview respondents emphasized self reflection as having a positive impact on their leadership performances because interviewees reported engaging in dialogue regarding their professional critical incidents with their PLC's or support networks to increase their overall performances during critical incidents.

Limitations

In addition to the delimitations identified at the inception of the study, limitations emerged during the administration of the study that were not anticipated. Roberts (2010) defined limitations as "features of your study that you know may negatively affect the results of your study or your ability to generalize...areas over which you have no control" (p. 162).

Limitations of the study include:

1. The survey results were limited by a low participation rate. The survey was distributed to 1144 secondary school principals who were currently active members

- of the Minnesota Association of Secondary School Principals (MASSP). There were 151 completed surveys, equating to a 13.2% return rate.
2. On the online survey distributed to participants, the Disagree and Somewhat Disagree headings were transposed. Since this would result in inaccurate or incomplete data, 88 respondent surveys were excluded from the group to ensure accurate data. The headings were corrected. The sample size decreased from 151 to 63, equating to a 5.5% return rate.
 3. The small sample size of the principals who agreed to participate in the study limits the generalizability of the study's findings to the entire MASSP population.

Recommendations for Further Research

Recommendations for further research include the following:

1. A study could be conducted to analyze the effects of select demographics such as years of experience, gender, head principal versus assistant principal, and size and location of schools on the impact of positive psychological capacities on Minnesota secondary school principals' authentic leadership during critical incidents through utilization of the modified PCQ instrument and one-on-one interviews.
2. A replication of the study could be conducted with elementary school principals.
3. A mixed methods study could be conducted of Minnesota secondary school principals to ascertain which professional development programs they would report as having increased the positive psychological capacities of principals. These professional development programs could be reproduced in other school districts to ensure the preparation of a quality cadre of principals across school districts.

4. A mixed methods study could be conducted to examine how school district leaders perceive psychological capacities and how they support principals' professional growth in positive psychological capacities as strategies for addressing professional critical incidents.
5. A mixed methods study could be conducted to determine how Minnesota secondary school principals utilized professional learning communities (PLCs) for professional growth and support during critical incidents.
6. A study could be conducted involving interviewing Minnesota secondary school principals to ascertain how select principal professional preparation programs in Minnesota increased principal's positive psychological capacities and authentic leadership.

Recommendations for Practice

Recommendations for practitioners include:

1. Principals are encouraged to consider participation in a principal professional learning community (PLC) to increase reflection on critical incident responses to further their professional growth. According to Bartone (2006) it is through individuals' self-reflection and discussions that individuals communicate positive reconstructions of stressful experiences to ensure resilient organizations.
2. Principals are encouraged to consider reflecting, discussing, and writing about core beliefs, values, and principles to proactively prepare for a critical incident. "Doing this proactively would establish the personal and professional groundwork needed to endure a critical event" (Lenarduzzi, 2015, p. 265).

3. School district leaders are encouraged to consider maintaining ongoing dialogue and support for principals during critical incidents to increase their self-efficacy, hope, optimism, and resilience.
4. School district leaders are encouraged to consider implementing professional development programs that are focused on increasing the positive psychological capacities of principals and their authentic leadership performances.
5. Institutions of Higher Education in their principal preparation programs could use the study results to consider including psychological capacities research to help develop increased leadership skills in prospective school administrators.

Summary

Multiple researchers agree (Ackerman & Maslin-Ostrowski, 2002, 2004a, 2004b; Badaracco, 1997; Bennis & Thomas, 2002a, 2002b, 2007; Bennis, 2009; Cooper et al., 2005; Lenarduzzi, 2015; Maslin-Ostrowski & Ackerman, 2000; Quinn, 2005; Yamamoto et al., 2014) excellent leaders do not let critical incidents determine their outlook or behavior. They use critical incidents to glean life lessons from them in order to increase their professional growth. Based on the findings of the study, select Minnesota secondary school principals demonstrated a strong connection with the research.

In general, Minnesota secondary school principals who participated in the study considered themselves self-efficacious, hopeful, resilient, and optimistic during critical incidents. Principals reported that self-efficacy had the greatest impact upon their authentic leadership performances during critical incidents, yet stated all positive PsyCaps were necessary for success during critical incidents. Principals also reported analyzing situations, communicating building needs to superordinates, and successfully communicating strategies to overcome critical

incidents as the abilities with which they were most confident (self-efficacy) as they led authentically during critical incidents. They believed their ability to maintain a positive motivational state (hope) was necessary during critical incidents. Principals highly rated the ability to learn and develop (resilience) during critical incidents and the ability to rebound (resilience) as positive leadership abilities to utilize during critical incidents. The positive psychological capacities (PsyCap) positively impacted the authentic leadership performances of principals by increasing their self-efficacy during the critical incident.

All three interview subjects reported positive impacts of PsyCap on their authentic leadership performances during critical incidents through creating a positive attitudes towards students, a strong understanding of core values and beliefs, and increased confidence in their abilities to lead their educational communities. The majority of interview subjects also believed critical incidents led to the practice of reflection which also positively impacted their authentic leadership performances and prepared them for future critical incidents.

Overall, among the sample of Minnesota secondary school principals in the study, it was found that they perceived they were high PsyCaps authentic leaders who knew, accepted, and remained true to their core values and beliefs even during critical incidents (Avolio et al., 2004). They were able to support one another through PLCs or networking to overcome and grow professionally from critical incidents. Secondary school principals who display psychological capacities can be “Extraordinary leaders (who) find meaning in—and learn from—the most negative events. Like phoenixes rising from the ashes, they emerge from adversity stronger, more confident in themselves and their purpose, and more committed to their work (Bennis & Thomas, 2002a, p. 1).

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Appendix A: CITI Completion Certificate

		Completion Date 24-Sep-2017 Expiration Date 23-Sep-2022 Record ID 24740964
This is to certify that:		
Marcia Welch		
Has completed the following CITI Program course:		
Basic/Refresher Course - Human Subjects Research (Curriculum Group) IRB Training for Graduate Students (Course Learner Group) 1 - Basic Course (Stage)		
Under requirements set by:		
St. Cloud State University		
		
Verify at www.citiprogram.org/verify/?w624701e3-1470-43d0-8b8a-8d95b906cdb8-24740964		

Appendix B: Psychological Questionnaire Research Permission

**Psychological Capital Questionnaire
Research Permission**

Fred Luthans, Bruce J. Avolio, and James B. Avey

Prepared on
November 13, 2017
for:
Marcia Welch

You completed your evaluation at 6:49 pm EST on November 13, 2017.

Psychological Capital Questionnaire Research Permission

Fred Luthans, Bruce J. Avolio, & James B. Avey

Introduction: The Psychological Capital Questionnaire (PCQ) has undergone preliminary validation efforts to demonstrate that it is both reliable and construct valid. Permission to use the PCQ free of charge and for a limited period is provided for research purposes only. This document contains:

Conditions of Use for the Psychological Capital Questionnaire - Use of the Psychological Capital Questionnaire is subject to the conditions outlined in this section.

Abstract of Research Project - A brief description of your research project.

Psychological Capital Questionnaire - The form itself (self and other) and instructions for calculating scale scores.

Permission to Reproduce Sample Items - You cannot include an entire instrument in your thesis or dissertation, however you can use up to three sample items. Academic committees understand the requirements of copyright and are satisfied with sample items for appendices and tables. For customers needing permission to reproduce three sample items in a proposal, thesis, or dissertation this section includes the permission form and reference information needed to satisfy the requirements of an academic committee.

All Other Special Reproduction: For any other special purposes requiring permissions for reproduction of this instrument, please review the information at <http://www.mindgarden.com/copyright.htm> or contact us at info@mindgarden.com.

Conditions of Use for the PCQ

Before conducting your research:

- 1) You will submit the Research Permission for the Psychological Capital Questionnaire form.
- 2) While filling out the Research Permission for the Psychological Capital Questionnaire form you will need to provide additional information and agree to additional conditions if...

... you are planning to administer the PCQ online using a survey company other than Mind Garden.

... you are planning to translate the PCQ.

... you are planning to alter the PCQ.

- 3) You will electronically sign an agreement that you understand and agree to comply with the conditions of use. This agreement is at the end of the Research Permission for the Psychological Capital Questionnaire form.

Note: This pdf is documentation that you have successfully fulfilled these three conditions.

While conducting your research:

- 1) You will only use the PCQ for non-commercial, unsupported research purposes. Non-commercial research purposes means that you will not now or in the future directly or indirectly use the content for profit-seeking or other financial or commercial motivations but rather will use the content solely to further research that is purely academic or public-good driven. Your license to the content is personal to you and is solely for such non-commercial research purposes.
- 2) You will use the PCQ in its exact form without any changes to the instructions, rating scale/anchors, or order of items. All of the items listed in the survey must be used. (If you have indicated on your Research Permission for the Psychological Capital Questionnaire form that you plan to alter the PCQ and provided details on the proposed alterations and the rationale behind those alterations, then you may ignore this condition).
- 3) You will use the PCQ for only the specific study that has been requested. Contact Mind Garden if you would like to use the PCQ for a different study.
- 4) You will not provide the PCQ to any other researchers. They must submit their own Research Permission for the Psychological Capital Questionnaire form for permission.

- Your name, email, phone number, and company/institution
- Your Mind Garden order or invoice number
- Your research project title
- Mind Garden instrument name
- The remote online survey website that you will be using.
- A statement that:
 - ...you have paid for your reproduction licenses and you will compensate Mind Garden Inc. every time the form is accessed or the participant logs in to access the survey. You understand that an administration or license is considered "used" when a respondent views one or more items/questions. Note: An administration or license is considered "used" when a respondent views one or more items/questions, regardless of whether the respondent completes the survey.
 - ...you will put the instrument copyright statement (PCQ Copyright 2007 by Fred Luthans, Bruce J. Avolio and James B. Avey. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com) on every page containing questions/items from this instrument and you will send screenshots of the survey so that Mind Garden can verify that the copyright statement appears.
 - ...you will remove this online survey at the conclusion of your data collection and you will personally confirm that it cannot be accessed.
 - ...once the number of administrations reaches the number purchased, you will purchase additional licenses or the survey will be closed to use. CAUTION: If you do not require a unique login for each respondent, the survey method you use may elicit a large number of responses to your survey. You are responsible for compensating Mind Garden for every administration, regardless of circumstances.
 - ...you will not send Mind Garden instruments in the text of an email or as a PDF file to survey participants.

Abstract of Research Project

Permission to use the PCQ is for the following research project:

Project title:

The Perceived Impact of Positive Psychological Capacities on the Authentic Leadership of Minnesota Secondary School Principals During Critical Incidents

Research focus:

The purpose of the study is to determine the positive psychological capacities Minnesota secondary school principals report they utilize to lead authentically during a professional critical incident. The research is designed to provide information regarding the impact of the positive psychological capacities of resiliency, optimism, hope, and self-efficacy on Minnesota secondary school principals' authentic leadership performance during a professional critical incident. The study may prove to be beneficial to school district leadership and professional organizations in Minnesota. Furthermore, the study's findings may provide recommendations that lead to improved performance and professional growth for Minnesota secondary school principals during a professional critical incident.

Key hypotheses:

1. What attitudes and behaviors associated with positive psychological capacities did Minnesota secondary school principals report they utilized to lead authentically during a professional critical incident? 2. Which positive psychological capacities (hope, self-efficacy, resiliency, and optimism) did Minnesota secondary school principals perceive had the greatest impact on their authentic leadership performance following a professional critical incident? 3. What did Minnesota secondary school principals note as the impact of the positive psychological capacities of resiliency, optimism, hope and self-efficacy on their authentic leadership performance following a professional critical incident?

Sample characteristics:

Minnesota secondary public school principals, assistant principals, and deans who are active members of Minnesota Association of Secondary School Principals organization.

Research method:

Mixed Method, a convenience sample will be utilized for the survey and a purposeful sample will be utilized for the interviews.

Organizational characteristics:

Public middle and high schools

Organization domain:

Other (write below)

Other domain:

Education

Country/Countries:

United States

I will be conducting this study in English:

Yes

Language:

English

You requested permission to reproduce the number of copies of the PCQ stated below. The copyright holder has agreed to grant a license to reproduce this number of copies of the PCQ within one year of the date listed on the cover page of this document.

Exact number of reproductions being requested for this research project: 500

You agreed to all the conditions of use outlined in this document by electronically signing the Research

Permission for the Psychological Capital Questionnaire form.

Electronic signature: Marcia Welch Date of signature: 11/13/17



To whom it may concern,

This letter is to grant permission for Marcia Welch to use the following

copyright material: Instrument: ***Psychological Capital (PsyCap)***

Questionnaire (PCQ)

Authors: ***Fred Luthans, Bruce J. Avolio & James B. Avey.***

Copyright: ***“Copyright © 2007 Psychological Capital (PsyCap) Questionnaire (PCQ) Fred L. Luthans, Bruce J. Avolio & James B. Avey. All rights reserved in all medium.”***

for his/her thesis/dissertation research.

Three sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation. The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Mind Garden, Inc.
www.mindgarden.com

Appendix C: PCQ Alteration Agreement**Conditions of Use**

Effective date is
November 11, 2017

for:

Marcia Welch

You submitted your statement for altering a Mind Garden instrument at 3:23 pm EST on November 11, 2017.



Conditions of Use for Altering a Mind Garden Instrument

Before conducting your research:

1) You will register your intent to make an alteration of a Mind Garden instrument by describing the type of alteration(s), the details of the alteration(s), and the rationale behind the alteration(s). (You have fulfilled this condition. The information you provided is included below).

Question

Instrument Name:

Answer

Psychological Capital
Questionnaire

Specific Alterations:

Change the wording
of and item or items

Alteration Details:

I would like to add a definition of critical incident. For the study, a critical incident is "defined as an interruption in the expected behaviours and developments in one's life that produces strong emotions and a need to make sense out of the situation" (Weick, 1995; WorksafeBC, 2002; as cited in Lendaruzzi, 2015, p. 254).

The questions for each of the capacities would be altered to have a focus on critical incident, where it is appropriate. For example, "When I have a critical incident at work, I have trouble recovering from it, moving on" or "There are lots of ways around a critical incident."

Reason for Alterations:

The purpose of the study is to determine the psychological capacities of Minnesota secondary school principals report they utilize to lead authentically during a critical incident. I would like to alter the instrument to ask the questions from a focus on principals' psychological capacities during critical incidents.

- 1) You will assign all rights to the altered instrument to the copyright holder. (You agreed to this condition by electronically signing and submitting the form).

- 2) You will put the instrument copyright, including the notification that the instrument was altered, on every page containing question items from this instrument. Add the following text to the end of the copyright:

"Altered with permission of the publisher."

An example, using the Multifactor Leadership Questionnaire, is shown below.

MLQ Copyright © 1995 Bruce Avolio and Bernard Bass. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com Altered with permission of the publisher.

Appendix D: PCQ Remote Online Use Agreement

**Approval for Remote Online Use
of a Mind Garden Instrument**

Effective date is
November 13, 2017
for:
Marcia Welch

You submitted your statement for remote online use at 7:21 pm EST on November 13, 2017.

Marcia

Remote online use of the Mind Garden instrument stated below is approved for the person on the title page of this document.

Question**Answer**

Your name:

Marcia Welch

Email address:

mmhwelch1989@gmail.com

Repeat email address:

mmhwelch1989@gmail.com

Phone number:

7632387518

Company/institution:

St. Cloud State University

Your project title:

The Perceived Impact of Positive Psychological Capacities on the Authentic Leadership of Minnesota Secondary School Principals During Critical Incidents

Mind Garden Sales Order or Invoice number for your purchase of reproduction licenses:

research permission requested, no purchase necessary

The name of the Mind Garden instrument you will be using:

PCQ

Guidelines

You have agreed to the following guidelines:

Question

I have paid for my administration licenses and I will compensate Mind Garden, Inc. for each use; one license is considered used when a participant first accesses the online survey.

Answer

I agree to this condition.

I will put the instrument copyright statement (from the footer of my license document; includes the copyright date, copyright holder, and "All rights reserved in all media. Published by Mind Garden, Inc. www.mindgarden.com") on every page containing questions/items from this instrument **and** I will send screenshots of the survey so that Mind Garden can verify that the copyright statement appears.

I agree to this condition.

I will remove this online survey at the conclusion of my data collection and I will personally confirm that it cannot be accessed.

I agree to this condition.

Once the number of administrations reaches the number purchased, I will purchase additional licenses or the survey will be closed to use.

I agree to this condition.

I will **not** send Mind Garden instruments in the text of an email or as a PDF file to survey participants.

I agree to this condition.

Your comments and method of putting the instrument online

Question	Answer
Please specify the name of and web address for the remote online survey website you will be using and describe how you will be putting this instrument online:	Survey Monkey will be utilized with the assistance of the St. Cloud State Statistical Consulting and Research Center. Public secondary school principals, assistant principals, and deans who are active members of active members of MASSP will be invited to voluntarily take the survey on-line through Survey Monkey.
Please include any other comments or explanations you would like to provide about your remote online use of a Mind Garden instrument.	Per Chris, there is no invoice # since this is for a Educational Leadership dissertation.

Your signature and date

Question	Answer
Your name (as electronic signature):	Marcia Welch
Date:	11/13/17

Appendix E: Letter of Support from MASSP

Minnesota Association of Secondary School Principals



1667 Snelling Avenue North • Suite C-100 • St. Paul, MN 55108-2131 • 651-999-7333 • 1-800-430-6716 • massp.org

Executive Director
Dave Adney

Attorney/Lobbyist
Roger Aronson

Coordinator of
Student Activities
Doug Erickson

Office Manager
Renee LeForte

Accounting and
Membership
Manager
Patti Anderson

Projector Manager
Natalie Kenneally

January 3, 2018

Dear Colleagues

One of our members is conducting a study to look at the perceived impact of the positive psychological capacities of hope, self-efficacy, resilience, and optimism on Minnesota secondary school principals' authentic leadership during critical incidents. Please consider taking part in the survey to help our organization understand how to better support principals during a critical incident. The findings will be shared at an upcoming MASSP conference.

Dave Adney
Executive Director

The Voice of Middle Level and High School Principals

F: IRB Approval



Institutional Review Board (IRB)

720 4th Avenue South AS 210, St. Cloud, MN 56301-4498

Name: Marcia Welch
Email: mawelch@stcloudstate.edu

IRB PROTOCOL DETERMINATION: Expedited Review-2

Project Title: The Perceived Impact of Positive Psychological Capacities on the Authentic Leadership of Minnesota Secondary School Principals during Professional Critical Incidents

Advisor Kay Worner

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: **APPROVED**

Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

-Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

If we can be of further assistance, feel free to contact the IRB at 320-308-4932 or email ResearchNow@stcloudstate.edu and please reference the SCSU IRB number when corresponding.

IRB Chair:

Dr. Benjamin Witts
 Associate Professor- Applied Behavior Analysis
 Department of Community Psychology, Counseling, and Family Therapy

IRB Institutional Official:

Dr. Latha Ramakrishnan
 Interim Associate Provost for Research
 Dean of Graduate Studies

OFFICE USE ONLY

SCSU IRB# 1783 - 2260	Type: Expedited Review-2	Today's Date: 2/23/2018
1st Year Approval Date: 2/23/2018	2nd Year Approval Date:	3rd Year Approval Date:
1st Year Expiration Date: 2/22/2019	2nd Year Expiration Date:	3rd Year Expiration Date:

Appendix G: Survey Solicitation Email from Researcher

Dear MASSP member;

I am a doctoral candidate in St. Cloud State University's Educational Administration and Leadership doctoral program and am in the process of conducting my research project. I am seeking the assistance of my fellow MASSP members to aid me in determining the positive psychological capacities Minnesota secondary school principals report they utilize to lead authentically during professional critical incidents.

Please consider taking 10 minutes or less to complete the survey by Friday, March 30 to assist with my study. Your participation is voluntary, anonymous, and very much appreciated. You are free to withdraw from the survey at any time. The data your responses will provide will be invaluable. Thank you for your response and have a wonderful day.

[Survey](#)

Sincerely,
Marcia Welch
St. Cloud State University Doctoral Candidate
Principal, VandenBerge Middle School

Minnesota Association of Secondary School Principals
[1667 Snelling Avenue N, Suite C-100](#)
St. Paul, MN 55108
651-999-7333 phone
651-999-7331 fax

Appendix H: Consent to Participate in Survey

The Perceived Impact of Positive Psychological Capacities on the Authentic Leadership of Minnesota Secondary School Principals During Professional Critical Incidents

Consent to Participate

You are invited to participate in a research study regarding your perceptions of the impact of positive psychological capacities of hope, self-efficacy, resilience, and optimism have on the authentic leadership of Minnesota secondary school principals during professional critical incidents.

Principal, in the study, refers to head principals, associate principals, assistant principals, administrative interns and deans of students who are active members of MASSP.

Critical Incident, for the study, a critical incident is “defined as an interruption in the expected behaviours and developments in one’s life that produces strong emotions and a need to ‘make sense’ of the situation” (Weick, 1995; WorksafeBC, 2002; as cited in Lenarduzzi, 2015, p. 254).

If you agree to be part of the research study, you will be asked to answer survey questions about your perceptions of the impact of positive psychological capacities on the authentic leadership of Minnesota secondary school principals during professional critical incidents. You will also be asked if you would like to participate in a voluntary follow-up interview.

Benefits of the research: The benefits of the study include providing insights to colleagues regarding the impact of positive psychological capacities on authentic leadership that ensure principals’ successful performance during professional critical incidents. Furthermore, the study’s findings may provide recommendations that lead to professional growth and improved performance of Minnesota secondary school principals in addressing a professional critical incident. Results will be shared with the Minnesota Association of Secondary School Principals’ members.

Risks and discomforts: There are no foreseeable risks or discomforts for participants.

Confidentiality: Data collected will remain confidential. Data will be reported and presented in aggregate form with no more than two descriptors presented together. For interviews, responses will be kept strictly confidential, your name will not be disclosed nor will identified direct quotes be used. During the interview you may refuse to answer any question. All data will be kept on a computer secured with a password and destroyed within three years.

Participating in the study is completely voluntary. Your decision whether or not to participate will not affect your current or future relations with St. Cloud State University, or the researcher. If you decide to participate, you are free to withdraw at any time without penalty.

If you have questions about the research study, you may contact Marcia Welch at mawelch@stcloudstate.edu or Dr. Kay Worner, faculty advisor, at ktworner@stcloudstate.edu. Results of the study will be published at the St. Cloud State University Repository.

Your completion of the survey indicates that you are at least 18 years of age as well as your consent to participate in the study.

Appendix I: Consent to Participate in Interview

Title: The Perceived Impact of Positive Psychological Capacities on the Authentic Leadership of Minnesota Secondary School Principals During Professional Critical Incidents

Primary Investigator: Marcia Welch
Contact: 763-238-7518 or email: mmhwelch1989@gmail.com

Dissertation Advisor: Dr. Kay Worner
Contact: 320-308-2219; or email: ktworner@stcloudstate.edu

Dear Participant:

You are invited to participate in a research study of Minnesota Secondary School Principals and the perceived impact positive psychological capacities have on authentic leadership during professional critical incidents. You were selected as a possible participant because you are listed as a secondary school principal in the Minnesota Association of Secondary School Principals directory. This research project is being conducted to satisfy the requirements of a doctoral degree in Educational Administration and Leadership at St. Cloud State University.

The purpose of this study is to determine the positive psychological capacities Minnesota secondary school principals report they utilize to lead authentically during a professional critical incident. The research questions are as follows:

1. What attitudes and behaviors associated with positive psychological capacities do Minnesota secondary school principals report they utilize to lead authentically during a professional critical incident?
2. Which of the positive psychological capacities do Minnesota secondary school principals perceive have the greatest impact on their authentic leadership performance during a professional critical incident?
3. What do Minnesota secondary school principals report as an impact of the positive psychological capacities of hope, self-efficacy, resilience, and optimism on their authentic leadership performance during a professional critical incident?

This study hopes to clarify how principals are able to navigate the greater pressures and critical incidents that occur in the principal's role through the utilization of positive psychological capacities.

Data will be gathered in the form of an interview protocol of three open-ended questions. The estimated time for the interview is 1 hour. There are no foreseeable risks or discomforts associated with this study. A recording device will be used to collect and verify interview data; all recordings will be destroyed upon conclusion of the study. Transcriptions of the recordings will be destroyed within 3 years. Identified direct quotes will not be used in the reporting of research results.

There is no compensation for interview participants.

The confidentiality of the information gathered during your participation in this study will be maintained. Your personal identity will remain confidential. You will not be identified by your name in any published

material. All data will be kept in a locked file cabinet in a secured office and/or on a password-protected computer.

Your participation in this study is voluntary. You may decide not to participate or to withdraw your consent to participate in this study at any time, for any reason, without penalty. Your decision whether or not to participate will not affect your current or future relations with St. Cloud State University, the Educational Administration program, or the researchers.

This investigator may stop your participation at any time without your consent for the following reasons: if it appears to be harmful to you in any way, if the study is canceled, or for reasons deemed appropriate by the research coordinator to maintain subject safety and the integrity of the study.

If you are interested in learning the results of the study, please contact me at 763-238-7518 or mmhwelch1989@gmail.com. You may also contact the Educational Administration Doctoral Center staff at 320-308-4220 or go to the SCSU Educational Administration Doctoral Center, 720 4th Avenue South, Education Building B121, St. Cloud, MN 56301.

Acceptance to Participate in the Minnesota Secondary School Principals Study

Your signature indicates that you have read the information provided above, and you have consent to participate. You may withdraw from the study at any time without penalty after signing this form.

Subject Name (Printed) _____
Subject Signature _____
Date _____

Appendix J: Interview Protocol

Name of Interviewer: _____ Date of Interview: _____

Name of Interviewee: _____

Setting and location of Interview: _____

Other topics discussed: _____

Other documents, etc., obtained during interview: _____

Introductions: Greetings

- a. Warm up
- b. Establish relationship and build trust

Explain the nature of the research, purpose, and provide consent form for signing. The researcher explained the purpose of the interview was to gain in-depth knowledge of Minnesota secondary school principals' perception regarding the impact of positive psychological capacities on their authentic leadership during critical incidents. A description of the positive psychological capacities, critical incidents, and authentic leadership was provided to interviewees.

Begin interview:

1. Reflect on a time you experienced a critical incident or challenging time that affected your career significantly. Describe the following:

Probing:

- a) What were your thoughts/feelings/attitudes/behaviors during the critical incident?
- b) How did you manage the critical incident through the lens of hope, self-efficacy, resiliency, and optimism?
- c) In other words, how do you help lead by keeping up the optimism, hope, resiliency and self-efficacy in yourself and others?
- d) How did your thoughts/feelings/attitude/behaviors impact your decisions/actions?
- e) How did the experience impact your leadership practice?

2. Describe the impact of hope, self-efficacy, resilience, and optimism on you as a leader, as a person.

Probing:

- a) How important do you feel these capacities are to you as an authentic leader?
 - b) Which positive psychological capacity (hope, self-efficacy, resilience, and optimism) do you feel was most important to help increase or support your leadership performance during a critical incident?
 - c) What were the essential learnings or understandings that you came away with regarding the critical incident?
 - d) How important is self-reflection to your understanding of the critical incident and the impact of the positive psychological capacities of hope, self-efficacy, resilience, and optimism?
3. Do you have any additional comments?

Appendix K: Definitions for Interview Participants

1. **Positive psychological capacities (PsyCap):** Luthans, Youssef, & Avolio (2007) defined psychological capacities (PsyCap) as an individual's positive psychological state of development and is characterized by (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success (p. 3).
2. **Critical Incident:** For the study, a critical incident is “defined as an interruption in the expected behaviours and developments in one's life that produces strong emotions and a need to ‘make sense’ of the situation” (Weick, 1995; WorksafeBC, 2002; as cited in Lenarduzzi, 2015, p. 254).
3. **Authentic Leaders:** Avolio, Luthans, and Walumbwa (2004) defined authentic leaders as those who know, accept and remain true to their core values and beliefs. Authentic leaders are “those individuals who are deeply aware of how they think and behave and are perceived by others as being aware of their own and others' values/moral perspective, knowledge, and strengths; aware of the context in which they operate; and who are confident, hopeful, optimistic, resilient and high on moral character” (p. 4).

4. **Hope**: Hope is defined as a “positive motivational state based on an interactively derived sense of successful (a) agency (goal directed energy) and (b) pathways (planning to meet goals)” (Snyder, Irving, & Anderson, 1991, p. 287).
5. **Self-efficacy**: Luthans et al. (2007) denoted self-efficacy as a leader’s confidence in his/her ability to control one’s motivation, behavior, and social environment to successfully complete a task. Self-efficacy is based upon the belief in one’s abilities to achieve a goal or an outcome.
6. **Resilience**: For the study, resilience, as it is applied to the workplace, is defined as the “positive psychological capacity to rebound, to bounce back from adversity, uncertainty, conflict, failure; or even positive change, progress, and increased responsibility” (Luthans, 2002, p. 702).
7. **Optimism**: Luthans, Avolio, & Avey (2014) defined optimism as “having a positive outcome, outlook or attribution, including positive emotions and motivation, while maintaining a realistic outlook” (p. 4).

Appendix L: Codes Used for Interview Analysis

	Beliefs	Feelings/Attitudes	Behaviors
Self-efficacy	<ul style="list-style-type: none"> ● Belief in oneself ● Believe outcome will be successful 	<ul style="list-style-type: none"> ● Challenging goals are energizing ● Welcomes challenges ● Embraces change 	<ul style="list-style-type: none"> ● Challenging goal selection ● Ability to inspire others ● Ability to motivate others to think about issues/problems in new ways ● Ability to motivate others to pursue goals ● Invests time and effort to meet goals ● Perseverance ● Self-motivated ● Self-determination ● Self-reflection ● Forethought
Hope	<ul style="list-style-type: none"> ● Believe in control of own destiny 	<ul style="list-style-type: none"> ● Determined to achieve goals ● Positive outlook ● Strong willed ● Creative ● Innovative ● Resourceful 	<ul style="list-style-type: none"> ● Perseverance ● Sets challenging, realistic goals ● Participates in contingency planning ● Proactively generates alternative paths to goals ● Develops alternative paths to goals when facing obstacles ● Evaluates alternatives paths ● Knows how to implement alternative paths
Optimism	<ul style="list-style-type: none"> ● Believe future will be positive 	<ul style="list-style-type: none"> ● Realistic ● Positive outlook ● Enthusiastic ● Self-aware ● Growth Mindset ● Takes pride in the success of others 	<ul style="list-style-type: none"> ● Flexible ● Takes calculated and necessary risks ● Dreams for themselves, associates, and organization ● Pursues dreams/goal ● Emphasize growth in self and others ● Enables, empowers, delegates, and trust their followers ● Equips their followers with necessary skills, knowledge, abilities and motivation

Resilience	<ul style="list-style-type: none"> ● Believe adversity is the springboard for growth and development 	<ul style="list-style-type: none"> ● Positive self-perception ● Faith ● Positive outlook on life ● Emotional stability ● Creative 	<ul style="list-style-type: none"> ● Self-regulation ● Sense of humor ● Insight ● Independence ● Seeks out mentoring relationships ● Motivation to learn and develop ● Aligns one's actions to a value system that guides judgment ● Initiative
Authentic Leadership	<ul style="list-style-type: none"> ● Believe in the growth of self and others ● Believe in "to thine own self be true" 	<ul style="list-style-type: none"> ● Self-efficacy ● Hope ● Optimism ● Resilience ● Confident ● Self-awareness 	<ul style="list-style-type: none"> ● Reflection ● Resists social and situational demands to compromise values ● Aware of personal and social identities ● Emotionally self-aware ● Future oriented ● Continually develop self and others ● Seek out feedback ● Experiences greater positive emotions ● Transparency