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Teacher Reaction to Change in the Lutheran Elementary School: A Grounded Theory Approach

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TEACHER REACTION TO CHANGE IN THE LUTHERAN ELEMENTARY

SCHOOL: A GROUNDED THEORY APPROACH

by

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Schools, and the teachers and administrators who work in them, need the flexibility to adapt to current student needs. Past research has focused on organizations and plans for change; little research has been done on individual teacher reaction to change situations leaving a gap in the literature. The goal of this constructivist grounded theory study was to explore how individual teachers, in LCMS Lutheran elementary schools, react when presented with change. Data were collected through interviews involving an event history calendar to facilitate memory. A theoretical sampling process was used to collect and analyze data utilizing a constant comparative method. The theoretical model emerging from the data identified resilience as a key factor in individual reaction to change. When teachers encounter the ambiguity, contingencies and repercussions of change these challenges can be met with a variety of reactions. This study identified adaptive reactions in the areas of support, strategies and faith that worked to build resilience in teachers that permitted them to weather the trials of change. These adaptive reactions form the resilience model of teacher change. Findings from this study will be advantageous for administrators and others in the Lutheran school community seeking to promote change within their school or classrooms. This study points to benefits in the promotion of the evaluation of strategies, the building of supportive relationships, and the creation of an adaptive change environment.

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Soli Deo Gloria

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INTRODUCTION

In a speech given in the early 1900's, Winston Churchill states that "To improve is to change, so to be perfect is to have changed often" (James, (n.d.). p. 3706). Given the inevitable changes in society and the need for schools to keep up with these changes, teachers must be able to withstand change and transform practices. Nevertheless, change is not a process that flows easily from plan to execution.

Statement of the Problem

Too often, professional development, designed to bring about change in elementary classrooms, is successful in changing teacher beliefs regarding pedagogy, but is ineffective in changing practice (Nathan & Knuth, 2003; Parise & Spillane, 2010; Vanderburg & Stephens, 2010). There are myriad reasons for ineffective change, including one-size-fits-all programs (Conway, 2008), assumptions that change will happen on its own once people see the benefit of the change, lack of collaboration, and the creation of insider/outsider groups (Haggerty & Postlethwaite, 2003). In addition, programs that sustain an incorrect focus, for example placing emphasis on improved test scores instead of improved teaching (Heinecke, 2013), can result in teachers who know that change is important, but either do not accomplish it or have difficulty maintaining change (Cervetti, DiPardo, & Staley, 2014; Patterson & Crumpler, 2009).

The characteristics of effective change are just as numerous. In addition to common sense aspects such as time, resources and peer support (Borko, Davinroy, Bliem, & Cumbo, 2000; Orrill, 2001), change is most likely to be successful when the school administrators create a school climate conducive to change (Bruce & Ross, 2008;

Conway, 2008; Parise & Spillane, 2010). Such climates include clear goals (Bruce & Ross, 2008), guidance beyond the initial teaching phase, and opportunity to adapt to what is new through the negotiation of tensions associated with change (Cervetti, DiPardo, & Staley, 2014). The goal of change is best accomplished when teachers have optimal choice and involvement in the process (Borko, Davinroy, Bliem, & Cumbo, 2000; Conway, 2008). Furthermore, teacher involvement is seen in collaboration and reflection (Haggerty & Postlethwaite, 2003; Heinecke, 2013; Orrill, 2001). Collaboration can take on the form of peer support or peer coaching (Borko, Davinroy, Bliem, & Cumbo, 2000; Bruce & Ross, 2008; Heinecke, 2013) and serves to support risk-taking (Haggerty & Postlethwaite, 2003) and the reduction of group-think that leads to forced conformity (Parise & Spillane, 2010). Reflection serves the process of change by encouraging the evaluation of the proposed change (Borko, Davinroy, Bliem, & Cumbo, 2000), the change process itself (Cervetti, DiPardo, & Staley, 2014), as well as teachers' progress (Nathan & Knuth, 2003).

In addition to fostering collaboration reflection, successful change programs attend to the needs of individual teachers (Orrill, 2001) often using a combination of techniques (Parise & Spillane, 2010). Effective change recognizes teacher needs change over time (Conway, 2008) and change needs to involve proximal goals appropriate for each individual (Haggerty & Postlethwaite, 2003; Orrill, 2001). Effective change practices involve the building of trust (Heinecke, 2013; Orrill, 2001) and the promotion of advice seeking behaviors (Parise & Spillane, 2010), teacher self-efficacy, persistence and adaptive methods for coping with anxiety (Borko, Davinroy, Bliem, & Cumbo, 2000; Bruce & Ross, 2008).

Attention to the individual teacher's reactions, needs, attitudes, and behaviors are instrumental to a successful change process. (Parise & Spillane, 2010). Teachers perceiving a lack of support are prone to a response of "if, then" requirements. For example, *if* there is enough time (support, resources, training) *then* change is possible (Borko, Davinroy, Bliem, & Cumbo, 2000). Teachers are known to focus on barriers to change (Pierce & Ball, 2009), to doubt their ability to master new skill (Patterson & Crumpler, 2009) and to show reluctance to participate when the focus is on their own deficits rather than the needs of the students (Orrill, 2001). The list of reactions extends to apprehension regarding risk, loss of control, resentment, avoidance, resisting forced change, feeling oneself an outsider, and expressing doubt in the value of evidence-based practice (Haggerty & Postlethwaite, 2003). Each of these reactions has the potential to sidetrack the process of change.

Thus, there is a clear need to explore teacher reaction to change, learn about individual teacher views of change, and generate theory regarding varied reaction to change in elementary schools. There are many theories regarding temperament, personality, and motivation that can help us to understand individual reactions to change. This suggests a good starting place is one that focuses on collecting and analyzing data on individual teacher reaction to change in order to narrow down the theories that best apply. This study will use the Grounded Theory Method (GTM) to accomplish this goal.

The reasons for focus on Lutheran schools are three-fold. Currently in the public school system many changes are centered on the requirements of No Child Left Behind (Education, 2001), and Common Core Standards (Standards, 2014) which may interject personal feelings about the nature of these initiatives from the participants into the

process of change. This research seeks to understand the basic relationship between teachers and change and does not focus on teacher reaction to government sponsored initiatives. Second, Lutheran schools operate under a flat hierarchy (Eisenberg, Goodall Jr., & Trethewey, 2010) with a decentralized decision making process that allows for a stronger voice on the part of teachers. Research in an environment with a flat hierarchy would assure that reactions being recorded as data will be reactions to change rather than reactions to remote leadership. Third, the findings of this study will be more useful to the larger population from which the interview sample is derived (i.e. Lutheran teachers and administrators.)

Purpose of the Study

The purpose of this grounded theory study is to develop a theory to explain the process by which Lutheran elementary teachers adjust to change in their learning communities.

Research Question

The central question for the study is: What theory explains the process by which Lutheran elementary teachers adjust to change in their Lutheran schools? Subquestions include:

- How do teachers adjust emotionally to change in their learning communities?
- What behavioral strategies do teachers employ to adjust or react to this change?
- What are teacher's perceptions of support provided to them during the change process?

Definition of Terms

- **Lutheran Church Missouri Synod (LCMS)** The LCMS is a conservative Lutheran church denomination located primarily in the United States. It has over 2 million members and is divided into 35 districts containing 6,151 churches, 880 elementary schools, 1,200 early childhood centers, 90 high schools and 3 international schools (Membership and congregation statistics, 2014).

- **Lutheran Elementary School** Elementary schools in the LCMS are most often connected to a church congregation. Some schools are part of an association and are connected to a group of congregations. Elementary schools can vary in terms of grade levels included ranging from K-5, to K-8. Seven hundred of the 880 elementary schools hold accreditation through National Lutheran School Accreditation (NLSA). The average size of a Lutheran elementary school is around 100 students. Seven schools maintain enrollment in excess of 500 students (LCMS, 2014).

- **Change** This research is concerned with change in schools, such as new technology, a change in curriculum, or a change in school policy that results in changes in procedures (including but not limited to) teaching, discipline, assessment, or communication with parents.

- **Reaction to change** This term comprises behavioral and emotional reaction to change, including, but not limited to, words, actions, lack of action, evidence of fear, worry, caution, or enthusiasm.

- **Technology change** The term technology typically connotes electronic technology but, also includes any new technique or tool used to improve teaching, learning and assessment.

- **Curriculum change** A curriculum change would go beyond the adoption of new textbooks to include a change in philosophy, the practice of curriculum mapping, as well as changes in practice for teaching curriculum.

- **Policy/procedure change** A policy change includes changes made that result in procedure change. This would include, but not be limited to changes in discipline, changes in teacher/parent communication, or changes in staffing hierarchy.

Delimitations

1. The study centers on one perspective of the issue, that of Lutheran elementary teachers.

Limitations

1. As is common in qualitative research, the analysis of this data is subject to different interpretations by different readers.

2. Because of the interpretive nature of qualitative research, and because I m a former elementary teacher, researcher bias may be present in the analysis. However, I have not been a part of this population for some time and will not be interviewing people with whom I have worked. In this instance, personal familiarity with the typical processes of change in Lutheran schools may give me an opportunity to develop a strong bond from shared experiences, as well as the subsequent trust of the interviewees (Charmaz, 2014).

Importance of the Study

This study will give teachers a voice in the change process. It will further benefit teachers by providing insight into personal reactions to change. It will benefit administrators, and other school officials encouraging change, by providing information encouraging more specific and effective support in the change process. The theories derived from this study will also set the stage for further research regarding individual teacher reaction to change.

CHAPTER 2

LITERATURE REVEIW

Schools need to be efficient at change as the needs of students and society evolve. Schools depend on teachers to adapt, allowing the schools to educate and prepare learners for a changing world (Cole, 2004). This literature review first considers the characteristics of the Lutheran Church Missouri Synod (LCMS) as it pertains to the participants of the study. Next, the review explores seminal research on the reactions to the spread of technology (Rogers, 2003) and further considers teacher response to change by examining temperament. The review continues by investigating ways temperament may be altered or influenced by additional factors such as self-regulation, locus of control, mindset, tolerance for ambiguity, the need for assimilation or uniqueness, and the match between belief and behavior.

Lutheran Church-Missouri Synod

The Lutheran Church-Missouri Synod (LCMS) is an international denomination that is conservative in its doctrine holding to the teachings of Martin Luther as explained in *The Book of Concord* (1959). While the LCMS requires strict adherence to conservative doctrine, it does not require a similar adherence to conservative politics or toward conservative beliefs about change. Two specific doctrines of the church illustrate this view, the doctrine of the two kingdoms and the doctrine of repentance and sanctification (Tappert, 1959).

The teaching of the two kingdoms states that there is a difference between spiritual and temporal power. Temporal power consists of the government, whose place it is to enact and enforce laws for the protection of the citizens. The spiritual kingdom

comprises the work of the church (Tappert, 1959). In fact, James Madison credits Luther as having influenced the idea of the separation of church and state (Madison, 1867). The result of the practice of this doctrine is that the church rarely, if ever, takes a political stand or encourages its members toward a particular political view. For example, in the instance of abortion, the church does support the pro-life view. However, it does not compel members into voting for particular candidates or to a strong resolve for change in the law. Instead, the church works in the area of education, prevention, adoption services, care for pregnant women and their families, as well as counseling services with the understanding that these activities fall within the realm of the work of the spiritual kingdom. Because of this indication of separation, the LCMS is open to members of different political views.

In terms of dealing with personal change, the behaviors of members of LCMS are influenced by the doctrines surrounding repentance and sanctification. The LCMS doctrine on this point refers to what is called the third use of the law, namely that a living faith produces change. Repentance is not merely sorrow over sin; repentance looks towards a change in behavior. The LCMS understanding of sanctification credits the successful change in behavior to the work of God (Tappert, 1959). The basic understanding of this doctrine is that change is necessary, worthy, and efficacious. Instruction to teachers promotes the idea that personal change is important and supported (Fryar, 2004). The LCMS self-reports that nearly two-thirds of their teachers are trained by the church and all teachers are required to participate in church sponsored continuing education (LCMS, 2012).

Diffusion of Innovations

Rogers' (2003) empirically based model on the diffusion of innovations sets the stage for understanding how teachers have individual reactions to a proposed change. Rogers began his work with the study of the spread of farm technology throughout the agricultural community. He expanded his research to other areas that involve the spread of technology (defined as new ideas). His theoretical model describes five categories of people experiencing change in their field: innovators, early adopters, early majority, late majority, and laggards. Innovators typically make up a small group of people who actively seek information about new ideas. An innovator characteristically has a high level of education and will often be the first in the area to use a new technology. Innovators are typically eager for a challenge, solve problems effectively, and are comfortable with uncertainty (Rogers, 2003).

Members of the second, slightly larger group, early adopters, are more likely to have pursued professional development and are typically comfortable with uncertainty. The people in this group have strong support from, and a strong connection to, people within the organization. They often serve as opinion leaders and have respect from members of other groups as they are willing to try something new and comfortable talking about what works and does not work (Rogers, 2003).

The early majority is the first of the two larger groups. Members of this group are less comfortable with uncertainty and can make a change if they have good support. They are good observers, so their skepticism about the need for, or efficacy of, change can be overcome if they are given knowledge about the innovation and support in problem solving (Rogers, 2003).

The second of the two larger groups is the late majority. The people in this group are less likely to seek new ideas. They are uncomfortable with uncertainty and need persuasion, as well as time to observe, in order to accept a new technology. This group may propose objections to change as a response to anxiety. If the proposed change is not successful, members of this group may lose confidence in new technology (Rogers, 2003).

The final category, laggards, is a small group of people highly resistant to change, difficult to persuade, and likely to find ways to avoid real change. The members of this group are very uncomfortable with uncertainty and are afraid of failure. Because of this, they are typically the ones most in need of change. They will change when there is no alternative (Rogers, 2003).

Rogers' investigation of the spread of technology spans a lifetime of work. His model has been successfully applied not only to agriculture (Rogers, 1958) but also to electronic technology use in organizations (Rogers, 1987), the healthcare field (Rogers & Chen, 1980) and education (Mort, 1953). Rogers' research supports the understanding that teachers react to change as individuals. Any model or theory developed to explain teacher reaction would be strengthened by considering individual reaction.

Temperament

Temperament is defined as traits that appear early, remain stable over time, and are expressed primarily in individual differences in reactivity and the way that reactivity is self-regulated (Rothbart, Ahadi, & Evans, 2000). Reactivity is understood as the intensity of emotional arousal and self-regulation is made up of strategies that modify

individual reactivity (Rothbart & Derryberry, 1981; see also Kagan & Snidman, 2004; Rothbart, Ahadi & Evans, 2000).

Kagan (1994, 1997) further conceptualizes reactivity in terms of behavior inhibition. Kagan considers a threshold level for sensitivity to novelty as well as sensitivity to personal physiological reactions to be the reason for uninhibited (approaches new stimuli) and inhibited (withdraws from new stimuli) temperaments (Kagan, 1997). Given this understanding of reactivity and response to novelty, a teacher with a high level of reactivity would be especially sensitive to new situations and would accommodate that sensitivity by withdrawing from the situation. Additionally, temperament traits are not necessarily evident all of the time, but may be more noticeable in certain contexts. An individual may have developed self-regulation strategies that accommodate novelty in some situations, but may still react in fear in certain circumstances, such as when being supervised while using a new technology tool. The teacher may have learned to self-regulate during an evaluation, but the added stress of being evaluated while using an unfamiliar tool passes the threshold for regulation (Rothbart, Ahadi, & Evans, 2000). In this way, a teacher may feel comfortable trying a new technique in a situation that offered control, but might withdraw in a situation that included the risk of a poor evaluation.

Temperament stability.

Many aspects of temperament show stability from infancy into early adulthood (Rothbart, Ahadi, & Evans, 2000). Highly reactive temperament, as evidenced in irritability, intensity of emotion, and anxiety, remains stable (Caspi & Silva, 1995; Caspi, et al., 2003; Rothbart, 2011; Sanson, Hemphill, & Smart, 2004). Stability is also noted in

shyness, low aggression, and social anxiety evident in individuals with an inhibitive temperament (Kagan, Reznick, & Gibbons, 1989; Moehler, et al., 2008; Rothbart, 2011; Sanson, Hemphill, & Smart, 2004: Schwartz, Wright, Shin, Kagan, & Rauch, 2003). The development of self-regulation skills can produce adaptive behaviors, but temperament stays with the individual into adulthood.

Kagan cites longitudinal research from a study that began with infants and indicated stability of reactivity at 21 months, four years, seven years, and 13 years of age (Garcia-Coll, Kagan, & Reznick, 1984; Kagan, 1994). This study indicated that adolescents, identified as highly reactive as infants, retained aspects of that temperament resulting in introverted and cautious personalities. Kagan noted that this tendency toward introversion could influence occupational choice such that those with inhibited temperaments moving toward types of work in adulthood that allowed for control of unpredictability (Kagan, 1994; Reznick, et al., 1986; Schwartz, Wright, Shin, Kagan, & Rauch, 2003). According to Kagan, temperament's influence on an individual's personality is more constraint than determinant. In other words, temperament does not determine personality or outcomes in adulthood; rather it constrains in such a way as to prevent a highly reactive infant from becoming an extroverted adult who eagerly seeks public attention. Individuals cannot change from high reactivity to low reactivity. However, they can learn to cope with high reactivity and in time become more comfortable in novel situations (Kagan & Snidman, 2004).

Reactivity.

Reactivity is an aspect of temperament that describes an individual's reaction to something unfamiliar, to a challenge, or to a surprise. An individual with a high level of

reactivity must work hard to regulate the fear that hinders their approach to new

situations or challenges (Carey, 1998; Kagan & Snidman, 2004). As the individual nears

adolescence, fear begins to include anxiety regarding the possibility of failure (Rothbart,

2011). For example, a teacher facing the introduction of new computer technology will

not only need to regulate general fear regarding approaching something new, but also the

fear of looking less than competent if mistakes are made while learning to use the tool in

teaching (Kagan, 1994). Furthermore, individuals with high levels of reactivity also show

distress in reaction to the distress of others. This distress acts as an inhibitor toward

actions involving helping. This reactivity would also inhibit actions that would render

mutual support such as offering comfort, asking questions, or seeking support from peers.

Any of these actions have the possibility of alleviating fear (Rothbart, 2011). Without the

benefit of participating in mutual support, a highly reactive teacher, in the company of

others with a similar temperament, would face an even greater challenge when working

to self-regulate fear.

Kagan studied temperament by measuring infant physical and physiological

reactions to novelty. He recognized two types of reactions identified as extremes: high

reactive and low reactive, leading to inhibited and uninhibited behavior, respectively, in

early childhood. After finding connections to behavior and physiological reaction, he

theorized that some children were born with a lower threshold for sensitivity to novelty as

well as sensitivity to their own physiological reactions (Kagan, 1997). Kagan's

description of fear involves physical arousal resulting in distress, freezing or avoidance of

the unfamiliar. He was primarily concerned with fear that arises when an individual is

faced with an unfamiliar situation that cannot be immediately understood (Kagan, 1994).

Kagan's study of fear centered on fear of discrepancy, or the uncertainty that surrounds differences. He determined that this sensitivity was in reaction to conceptual novelty rather than to something new that captures attention. He noted that reactive individuals were sensitive to things, people, and events altered in some way (Kagan, 2009). For young children this could be fear of a clown face because it is similar to, but different from, a human face. For adults this could be fear of cultural differences slightly different from their own (Kagan, 1994). For teachers this might occur when encountering a new teaching method, one that is similar, but different in key areas.

In a study of adult's amygdalar response to discrepancy, Schwartz, Wright, Shin, Kagan, & Rauch (2003) found that even a small difference in stimuli would elicit a physical response. The subsequent physical changes in heart rate would be similar to those found in a state of fear and anticipation. A person easily aroused and highly sensitive to discrepancy would be frequently confronted with physical feelings of discomfort (Kagan, 2009). Kagan proposed that it is the sensitivity to subtle discrepancies, fueled by an awareness of physiological responses, that creates feelings of uncertainty (Kagan, 1994). Further research indicated that individuals with a sensitive fear response could have an uncomfortable physical reaction from simply hearing of a pending threat. In this way, body reaction changes that create uncertainty could lead a person to feel fear without a conscious realization of danger (Reznick, et al., 1986). This highly sensitive fear response might influence highly reactive teachers to reject a change even before discussion of the change itself. This fear could create a bias against the change encouraging teachers to focus on the negative. This list of negative aspects could

then form the reasons for rejecting the change rather than the initial feeling of fear

(Bugental, Cortez, & Blue, 1992; Kagan, 1994; Rogers, 2003).

A fine-tuned sensitivity to discrepancy has significant ramifications when

planning a change in a school setting. It is important to understand the true nature of a

teacher's reaction as either showing discomfort or expressing legitimate concerns about a

specific change: these require different responses on the part of the individual

orchestrating the change. Kagan's research showed that participants who were highly

reactive had stronger negative reactions to stress and change. He hypothesized that these

negative reactions would lead to career choices, such as teaching, that allowed for ample

control over daily events (Kagan, 1994; Reznick, et al., 1986; Schwartz, Wright, Shin,

Kagan, & Rauch, 2003). Teachers in elementary school typically work alone with only

occasional supervision from administration. Instead of needing to adjust to coworkers,

teachers are in charge of the people, with whom they spend their day, creating a

potentially attractive work situation for someone with a reactive temperament.

Fear and lack of situation control.

A temperament that results in an anxious reactive state in response to novel

situations can further direct response to change when combined with a perceived lack of

control over a situation (Bugental, Cortez, & Blue, 1992). Although teachers have control

over daily events, others often control change in the teaching environment. Individuals

who perceive a lack of control over the circumstances of their situation and feel they do

not have the ability to participate in the processes that regulate group behavior, may rely

on the facial cues of others to assess a given situation (Bugental, Cortez, & Blue, 1992).

The perceived lack of control can also lead them to seek the company of others in

threatening situations (Bugental, Cortez, & Blue, 1992; Zimbardo & Forica, 1963).

Additionally, those who perceive a lack of control are less adaptive and more intense

when under stress (Abramson & Seligman, 1978; Bugental, Blue, & Lewis, 1990;

Bugental, Cortez, & Blue, 1992; Lazarus & Folkman, 1984). This research also indicates

that those with perceived lack of control are less accurate in assessing a situation and

remembering details. They are more likely to incur heuristic errors by filling in details

with what is expected in a typical situation rather than with what has actually happened.

In fact, subjects primed toward feelings of control demonstrated fewer errors (Bugental,

Cortez, & Blue, 1992). A teacher faced with an imposed change with ambiguous

consequences may be led to seek comfort and support from others with similar concerns

perhaps resulting in a group supporting goal to oppose the change.

   Fear and challenge.

   Kagan (1994) found that while those who are low reactive seek challenge, high

reactive individuals are reluctant to take risks and tend to choose unchallenging goals.

Accomplishing unchallenging goals can leave the impression that a teacher is making a

change, when in reality very little has improved. For example, a teacher may choose to

redesign a classroom newsletter when what is really needed are major changes in

methods of communicating with parents. The accomplishment of the smaller goal could

create confusion between the teacher and the person promoting the change (e.g., the

principal) because their opinions regarding the accomplishment of change differ.

   A good reputation allows a teacher to retain more control over his or her work

area because of a trust relationship with school administrators, parents, and peers. Yet, in

a new situation, the uncertainty regarding possible harm extends to uncertainty over

reputational harm as part of the cognitive uncertainty inherent in the accommodation of new ideas (Kagan & Snidman, 2004). The fear of damage to reputation and the fear of criticism may be more salient than the fear of physical harm (Kagan, 1994; Reznick, et al., 1986). This fear of damage to reputation can cause a reactive person to seek protection from negative evaluations. Trying a new technique introduces the risk of failure, which threatens previous positive evaluations (Kagan, 2009).

Temperament Extended

Understanding the influence of temperament is an important beginning towards understanding individual reaction to change. Temperament influences personality development in addition to influencing the way in which a teacher reacts to change. Furthermore, development and cognition can also contribute to an understanding of the mechanisms of temperament traits such as persistence or inhibition (Dweck, 2000). Not every individual with a temperament that encourages high reactivity in the face of new situations will develop into an individual who refuses to change. Addition to the influences of temperament, reaction to change can be influenced by the development of self-regulation strategies (Rothbart & Derryberry, 1981), attributions such as locus of control (Rotter, 1966), implicit theory such as mindset (Dweck, 2000), the tolerance of ambiguity (Frenkel-Brunswik, 1949), the need for assimilation/uniqueness (Ruvio, 2008), as well as issues surrounding the match of belief to behavior (Zeece, 1994).

Self-regulation.

The self-regulation of any emotion involves moving between the stages of forethought, performance/volition control, and self-reflection. The forethought stage involves setting goals. The performance/volition stage includes the control of reactions

and attending to the needs of further motivation. Self-reflection involves evaluating reactions and considering the consequences of response. A teacher facing a new challenge would practice self-regulation by setting a goal regarding the challenge, regulate fear or excitement provoked by the challenge, all while assessing motivation. Self-regulation would continue as the teacher considers consequences of approaching or avoiding the challenge (Schunk, Pintrich, & Meece, 2008).

A breakdown in any part of that cycle will result in a disturbance in regulation. The sensitivity to discrepancy, or uncertainty, would affect the forethought stage of self-regulation interfering with the determination of positive goals (Kagan & Snidman, 2004). The fear of failure and evaluation would influence both motivation and performance. Even an initial excitement over the promise of success would be overshadowed by the need to regulate fear (Cacioppo & Berntson, 1994). Later in the process, as problems with adjusting to new tools or techniques arise, the self-reflection practice of self-regulation will continue the need to regulate fears of possible consequences.

The steps of self-regulation also apply to the process of changing behaviors (Pierce & Ball, 2009). A teacher leery of the requirement to use a new method of communicating with parents would set low goals for him/herself regarding usage of the tool due to the uncertainty of its utility. Such low goal setting would result in minimal use resulting in little feedback from parents. The lack of positive (or any) feedback would support the argument that the change was unnecessary. Any negative feedback would add to the list of fears supporting the argument against the change. The growing list of fears and negative aspects regarding the new tool may feed into one's implicit beliefs of new technology allowing the fears and failures of this experience to transfer to the next

proposed change. Consequently, the reluctance to change leads to a fear of failure and any misstep in trying a new technique will reinforce the negative attitude toward change (Rogers, 2003).

The emotions that require self-regulation emerge from, and are defined by, human interactions and input from important others (Shonkoff & Phillips, 2000). Being able to negotiate reactions to emotions while maintaining support and approval from others becomes a complicated undertaking. Feelings hinge on interpretation of experiences, relating those interpretations to experiences, and to the opinions of others (Shonkoff & Phillips, 2000). Teachers need to be able to cope with anxiety and to use it effectively to inspire the hard work of change (Borko, Davinroy, Bliem, & Cumbo, 2000; Bruce & Ross, 2008).

Locus of Control

Locus of control refers to an individual's perception of outcomes stemming from internal forces (personal effort) or external forces (chance, or the work of others). The perception of either an internal or an external locus develops from disposition, experience, and cultural influence (Rothbart, 2011; Rotter, 1966). Individuals demonstrating internal locus of control credit their behavior and skill for success or failure. They are more likely to feel autonomous, will pay attention to and learn from their environment, will notice their successes, and are more likely to learn from their failures. Those with an internal locus are also better persuaders, less likely to dwell on failure and more likely to be successful in changing personal habits. The individual with an internal locus will be accepting of behaviors designed to make a change (Rotter, 1966).

The ability to self-regulate reactivity can promote an internal state of locus of control. An individual exhibiting high regulation continually adapts responses in order to regulate reactions, which in turn increases levels of mastery. In this way, the combination of personal effort devoted to a task and mastery supports the perception of internal locus of control (Rothbart, 2011). Additionally, an internal locus of control promotes an individual's development of flexibility and adaptability as the individual realizes the benefits of the expenditure of personal effort. Avoiding new challenges represents one method of regulating the fear of something new; the dedication of effort to a task can serve as an alternative method for fear regulation (Rothbart, 2011).

Conversely, an individual with external locus of control will see little relationship between personal action and change in the environment. This encourages the individual to feel alienated or powerless to make things happen. Those who demonstrate external locus are less likely to learn from experiences and more likely to be circumspect regarding similar situations (Rotter, 1966). Individuals prone to negative emotions, who also perceive a lack of personal control, tend toward self-doubt regarding the ability to meet future expectations (Rothbart, 2011).

An internal locus of control can help a teacher to overcome barriers to change (Pierce & Ball, 2009). This self-assurance derived from overcoming barriers encourages teachers to take advantage of opportunities to be a part of the change process when those opportunities are available (Bruce & Ross, 2008). On the other hand, a forced change may result in teachers feeling they have lost control of the situation, thus moving them toward an external locus of control. This may discourage them from actively participating in the change (Haggerty & Postlethwaite, 2003).

Mindset

Dweck's concept of fixed vs. growth mindset (also known as entity vs. incremental theory of intelligence) refers to an implicit belief that influences an individual's actions, thinking, and decision-making (Dweck, 2000). Dweck's theory grew out of research on learned helplessness, a mental state in which an individual believes that he or she can do nothing to change a given situation (Dweck & Reppucci, 1973). As with locus of control, this implicit belief derives from disposition and experience. Individuals with a fixed mindset, or an entity view of intelligence, work under the belief that ability remains stable. Individuals with a growth mindset, or incremental view of intelligence, make decisions based on the understanding that personal ability can grow with learning and effort (Dweck, 2000).

In a fixed mindset, the idea that ability cannot improve leads to a performance orientation exemplified by the desire to look smart over the desire to become smart. This mindset encourages an individual to avoid any challenge as that may expose a weakness. It also discourages persistence and creates a situation where the success of others is a threat. In a growth mindset, the idea that ability can improve, leads to a mastery orientation. Challenges and failures are viewed as vehicles for improvement. Likewise, effort and persistence are valued and practiced. The growth mindset learns from feedback as this is also an opportunity to learn and improve (Dweck, 2008).

Goal orientation is a primary difference between a fixed and growth mindset. A growth mindset leads to a mastery orientation regardless of levels of confidence, whereas a fixed mindset is more likely to result in performance goals, which could disintegrate into learned helplessness given low levels of confidence (Dweck, 2008; Patterson &

Crumpler, 2009). Kamins and Dweck (1999) noted that particular types of feedback could also direct a subject toward a mastery goal over a performance goal. Specifically, praise or criticism of ability leads to a performance orientation where feedback directed at effort or behavior resulting in mastery orientation (Kamins & Dweck, 1999).

A teacher who believes that growth and improvement are possible will be more comfortable with the consequences of change (Bruce & Ross, 2008). Likewise, for a teacher who does not have confidence in the ability to improve, change will only represent discomfort and threat (Dweck, 2008). A highly reactive temperament could be exacerbated by a fixed mindset as the tendency to fear failure or the exposure of lack of ability would be even stronger for an individual who does not see the ability to improve. Such a reaction could be alleviated by a growth mindset belief that failures are steps toward learning and improvement.

In an event related potential (ERP) study, Dweck and Molden (2005) provided further insight into the effects of a fixed mindset. In this study, electroencephalography (EEG) readings measuring responses of subjects when asked to recall feedback indicated that subjects with a fixed mindset could remember feedback regarding performance of a task, but did not pay attention to information that could lead to the correction of errors. That is, subjects found mistakes to be salient, but not the possible solutions. Their cognitive processes favored comparison information over informative feedback.

The same lack of attention toward information that would encourage improvement could also discourage the effort necessary to develop a skill. The ability to tune into information that enables one to correct mistakes is a key component of the ability to reframe failure or challenges (Dweck, 2008). Attention paid to the praise of

performance, ignoring the information that promotes growth, can result in anxiety (Dweck & Molden, 2005). Teachers successful in change would need to rely on this ability to reframe in order to maintain the motivation necessary to adjust to new methods or tools. A teacher focused on comparison would find many more reasons to avoid change.

Tolerance for Ambiguity

Tolerance for ambiguity is defined as a personality orientation that potentially influences cognition strategies, belief and attitudes, social functioning, perception and behavior of the individual (Frenkel-Brunswik, 1949). Bochner (1965) organized Frenkel-Brunswik's theory into nine primary characteristics and nine secondary characteristics (Bochner, 1965). Among the primary characteristics associated with the intolerance of ambiguity, five have the potential of influencing teacher reaction to change. These characteristics include: seeking certainty, preference for the familiar, rejection of the different, and premature decision-making. Furthermore, anxiety is included among the secondary characteristics. Bochner proposed that persons with intolerance for ambiguity would be anxious about committing to a course of action in the absence of certainty regarding error (Bochner, 1965).

In a study to identify the relationship between tolerance for ambiguity, creativity and playfulness, Tegano (1990) predicted that persons comfortable with ambiguity might also engage in more problem-finding and problem-solving behaviors. If true, this combination would make such persons more comfortable with the problem-solving nature of change. The study results indicate that for the early childhood teachers serving as study subjects, creativity and tolerance of ambiguity have a moderate correlation ($r =$

.31, $p < .01$) while playfulness and tolerance of ambiguity showed a large correlation ($r = .81, p < .001$).

The secondary characteristic of anxiety thought to be found in persons with a low tolerance for ambiguity, coupled with the need for certainty would create a resistance to creative solutions or trying new techniques. The nature of change in schools rarely involves the certainty craved by those persons with an intolerance for ambiguity. Likewise, those teachers comfortable with ambiguity might relish the problem-finding and problem-solving nature of change.

Assimilation and Need for Uniqueness

Teachers given to trying new methods enjoy the reputation of being unique, but may also suffer criticism from peers because they are not assimilating with the group (Ruvio, 2008). The need to assimilate and the need to be unique, combined with temperament characteristics that encourage inhibition, could influence reaction to change by either propelling a teacher toward change or causing the teacher to be hesitant, judging the change by the reactions of others. For an individual with a highly reactive temperament, efforts to self-regulate reaction can take on many forms. For some the action of withdrawal regulates the fear of something new because it renders fear unnecessary. For others, the fear of being different will encourage approach to avoid negative reactions from peers.

In group situations the opinion and practice of the majority can determine what the group considers correct (Asch, 1956). Working outside of that norm can be uncomfortable. The consensus of the majority of a group can be accepted as evidence of best practice even in the face of data that suggests otherwise (Deutsch & Gerard, 1955;

Imhoff & Erb, 2009). In a school setting, this gives new understanding to the phrase "But, we have always done it this way!" A new technique, method, or policy would threaten the "evidence" of years of majority rule. Likewise, the desire to belong, or to avoid criticism, can motivate people to follow a group in spite of evidence that suggests a contrary practice would be more efficacious (Imhoff & Erb, 2009). Because of the desire to assimilate, members of a group can often hide their disagreement. When the desire for uniqueness pushes an individual to support a change, uncomfortable members of the group can find refuge in the safety of past practices (Deutsch & Gerard, 1955).

Alternatively, the desire to be unique also influences decision-making. Just as some perceive the majority opinion as right, for others the majority opinion is always wrong. While some will agree in order to belong, for those who have a high need for uniqueness, feeling too similar can be uncomfortable and can motivate towards working outside of group consensus (Imhoff & Erb, 2009).

Teachers with temperament characteristics that lead them to be uncomfortable with what is new might reject a proposed change because the group consensus gives them no reason to seek something new. Likewise, teachers who experience anxiety when they perceive themselves to be different might feel pressured to go along with a proposed change if others are willing to change. Alternatively, teachers with a low reactive temperament that encourages approach of new situations, who also have a desire to be unique, might be willing to embrace a change that allows their school to be a leader even if this change creates an uncomfortable reaction from other teachers. (Ariely & Levav, 2000; Chan, Berger & Van Boven, 2012 Deutsch & Gerard, 1955; Imhoff & Erb, 2009).

Belief/Behavior Match

A high reactive temperament can cause the individual to develop a coping style of avoidance rather than learning how to adjust to aspects of their temperament (Carey, 1998). For example, if learning a new technology causes stress it may be easiest to regulate the stress by avoiding the technology. In such an instance, even a strong understanding of the necessity for a particular change might not be enough to inspire the behavior needed to make the change happen (Cervetti, DiPardo, & Staley, 2014; Orrill, 2001; Vanderburg & Stephens, 2010). A teacher may accept that a new technology is an effective teaching strategy, but the stress involved in learning something new might inspire excuses for avoiding the technology altogether. A change process is dependent on a match between behavior and attitude (Zeece, 1994). Without this, the individual guiding the change process cannot adequately support teachers in learning necessary skills.

Naming four examples of individual mindsets for change, Sheth and Frazier (1982) promoted the understanding that individual orientation regarding the match between attitude toward change and the expected change in behavior is often missing when planning change for an organization or large group of people. The desired goal for creating change within an organization is for participants in the change process to have a match between belief, behavior, and the proposed change. However, it is possible that participants will have a match between belief and behavior that opposes the change, a belief that the change is good but a lack of behavior change, or a behavior change without the supporting belief (Sheth & Frazier, 1982). A teacher who supported a new discipline policy and made changes in discipline style in order to follow the new policy might

exemplify application of belief/behavior match in support of change in a school situation.
The opposite example would be a teacher opposed to the policy and refusing to follow
the guidelines. An example of belief/behavior mismatch would be a teacher who believes
in the merits of the new discipline policy but does little to change classroom practice, and
the teacher who changes practice in spite of the fact that he/she does not support the
discipline policy.

Research from studies of teacher change in early childhood programs indicates
that teachers require a safe place for expression of opinions so as not to force divergent
beliefs to be concealed surfacing at a later point as a mismatch between belief and
behavior (Zeece, 1994).

Research on teacher change points to several issues regarding the disconnect
between belief and behavior (Orrill, 2001; Pierce &Ball, 2009; Vanderburg & Stephens,
2010). While a mismatch between a proposed change and an individual teacher's
pedagogical belief is an impediment to change (Nathan & Knuth, 2003), to simply
change a teacher's beliefs are not sufficient to make changes in classroom practice
(Vanderburg & Stephens, 2010). Some teachers agree with the change, but do not make
actual changes in teaching (Cervetti, DiPardo, & Staley, 2014) and others find the change
difficult to maintain (Patterson & Crumpler, 2009). Additionally, when research attempts
to make a connection between a change practice and actual sustained change, the process
is hampered by instruments that ask teachers to self-report change. Teachers may believe
they have changed, when in fact they continue to use what is familiar (Parise & Spillane,
2010).

Teachers involved in a process of change have many different reactions to the process and each of these reactions influence the success or failure of the proposed change. Furthermore, there are many possibilities for temperament and personality influence on individual reactions. Theory that cohesively combines these observations would enhance the understanding of the change process and open up possibilities for further research.

Research Question

The central question for the study is: What theory explains the process by which Lutheran elementary teachers adjust to change in their Lutheran schools? Subquestions include:

- How do teachers adjust emotionally to change in their learning communities?

- What behavioral strategies do teachers employ to adjust or react to this change?

- What are teacher's perceptions of support provided to them during the change process?

CHAPTER 3

METHODOLOGY AND PROCEDURE

The overarching goal of this research is to understand and inform the process of individual teacher reaction to change for teachers in Lutheran elementary schools. This understanding is at its best when it yields practical information for those in the field.

Research design

The research design chosen for this qualitative study is the constructivist grounded theory method (GTM) as outlined by Charmaz (2000, 2014).

Grounded Theory Method

Grounded theory method is a qualitative research approach that describes both a research process and the desired result (Babchuk, 2011). Like other qualitative approaches, GTM uses inquiry to explore and develop a deeper understanding of an issue. It emphasizes the meaning that the participant brings to the study leaving the researcher to explore and interpret rather than explain or verify (Creswell, 2012; Stake, 2010). GTM defines itself from other qualitative methods in that it utilizes an emergent design, through the practice of constant comparison and theoretical sampling, to develop a broad conceptual theory grounded in the data. (Bryant & Charmaz, 2007; Charmaz, 2014; Creswell, 2012, Glaser & Strauss, 1967; Hood, 2007: Kelle, 2007; Strauss & Corbin, 1990). The emergent design of GTM is based on the iterative process of simultaneously collecting and analyzing data and making decisions as the study unfolds. An emergent design also requires decision-making regarding data collection based on the on-going data analysis. In this way, sampling is theoretical rather than purposeful and decisions regarding sampling occur throughout the study rather than from judgments

made at the onset of the research (Bryant & Charmaz, 2007; Charmaz, 2014; Creswell, 2012).

Glaser and Strauss (1967) describe GTM as the "discovery of a theory from data – systematically obtained and analyzed in social research" (p. 1). In the development of this method, Glaser and Strauss helped formalize the constant comparative method, encompassing an iterative process of comparing codes, categories, and theory development at each stage of the analysis. Glaser and Strauss' original GTM also depended on the procedure of theoretical sampling. Theoretical sampling is a process "controlled by the emerging theory" using the partial framework of the theory to determine the direction, type, and substance, of further data collection (Glaser & Strauss, 1967, p. 45). This method put the emphasis on the systematic discovery of a theory, rather than its verification (Bryant & Charmaz, 2007).

Strauss and Corbin altered GTM into a more structured and systematic approach. They introduced axial coding that encourages the researcher to look for a central phenomenon and a series of specific relationships. In this approach, the theory emerges not just from the data, but also from the structure (Creswell, 2012). Their approach encourages the researcher to use a coding paradigm and moves the emphasis of the study more toward verifying the theory with the data (Babchuk, 2008). In this method, the researcher is somewhat distanced from the data by the use of the system. There is less dependence on the researcher's interpretation as the central phenomenon and target relationships (i.e. conditions and consequences) keep the analysis on a specific track (Charmaz, 2014).

Moving GTM away from an objectivist and toward a constructivist approach, Charmaz (2014) sidestepped the systematic structure introduced by Strauss and Corbin and redirected the emphasis toward a theory constructed from data resulting from the shared experience of the researcher and participant. This approach recognized that the experience and expertise of the researcher are important parts of the process and drove home the idea that theories were not discovered but co-constructed by the interactive dialogue between the researcher and participants (Babchuk, 2008; Charmaz, 2014; Creswell, 2012).

Rationale for Using Grounded Theory Method.

Grounded theory method has been chosen for this research study to satisfy the desire to understand how the process of teacher reaction to change works (Charmaz, 2014; Creswell, 2012). While qualitative research seeks to include participant voice, meaning and experience (Charmaz, 2014; Creswell, 2012), GTM provides a process that results in a theory grounded in data (Creswell, 2013). The subsequent theory will not only promote a better understanding of the reactions of teachers to change, but will also provide theory that can better inform further research (Charmaz, 2014).

Researcher Theoretical View

The constructivist grounded theory method, as proposed by Charmaz (2014), is the choice for this research study to employ more flexible participant-centered coding strategy incorporating open and focused coding rather than the more restrictive coding paradigm advanced by Strauss and Corbin (1990) or the more cumbersome early theoretical coding strategies proposed by Glaser (1978). Constructivist GTM seeks to acknowledge, account for, and makes use of, researcher experience rather than depending

on the desire for complete objectivity attempted through the pre-chosen categories and core phenomenon integral to the objectivist approach. The goal is a theory that emerges from the data rather than theory that emerges out of the necessity to accommodate pre-determined categories (Charmaz, 2014).

Research Question

The central question for the study is what theory explains the process by which Lutheran elementary teachers adjust to change in their Lutheran schools? Subquestions include:

- How do teachers adjust emotionally to change in their learning communities?

- What behavioral strategies do teachers employ to adjust or react to this change?

- What are teacher's perceptions of support provided to them during the change process?

Rationale for Target Population

As schools that are self-managed, Lutheran schools do not often change simply because of bureaucratic dictates. Instead, change stems from the need to keep the school alive by filling desks. Successful education of students is a primary way to keep the enrollment of the school at a healthy level. Because education practice does not stand still, because the needs of children change with each class of students, and because Lutheran schools must remain competitive, Lutheran elementary teachers need to be able to change.

Change in an organization is a complex system, and that complexity is increased when the changes come from outside of the system (Hall & Hord, 2006). In spite of Federal influence in local school decisions, long-term and effective change begins with

the school and its teachers (Cole, 2004; Hall & Hord, 2006). Lutheran schools are not

directly responsible to the designers of No Child Left Behind or the Common Core. The

decisions to adopt changes that result from these influences are left to each school. In

comparison to public schools, Lutheran schools maintain a flatter organizational

hierarchy which decentralizes the decision-making process and allows for participation

and feedback between the administration and the faculty (Eisenberg, Goodall Jr., &

Trethewey, 2010). Lutheran schools design and plan their own change initiatives

allowing for observations derived from interviews to relate more to the change process

and less toward outside entities forcing change.

This research targeted several of the largest schools in the Lutheran Church

Missouri Synod network of schools. These schools have grown quickly and maintained

their growth indicating not only a larger pool of participants, but also more opportunities

to experience change while still participating in a flat organizational hierarchy.

Target Population and Sample

The tasks of determining a target population and choosing a sampling procedure

are different in GTM from other qualitative methods. The primary focus for sampling

emphasizes the data collected (Hood, 2007; Charmaz, 2014; Creswell, 2012). As

Charmaz (2014) indicates, "initial sampling in grounded theory is where you start,

whereas theoretical sampling directs you where to go." (p. 100). As in other forms of

qualitative research, the initial sampling goal in GTM is to identify a target population

that can provide relevant materials. This step is immediately followed by theoretical

sampling in which individuals, sites, or data are sampled in relation to the emerging

theory. In this way, a population is chosen by criterion over any other sampling reasoning

(Creswell, 2013). A GTM study seeks participants who can provide a depth of data allowing for the emergence of a theory through the process of constant comparison (Charmaz, 2014; Creswell, 2012).

The target population in this study is elementary teachers in Lutheran schools with between four and 25 years of experience. Teachers from Lutheran schools were chosen because these schools operate under a horizontal hierarchy. Decisions are made at the administrator level rather than at the district, state, or national level as is most common in public school settings. A vertical hierarchy creates a top-down flow of information, which creates a larger gap between the teacher and the decision-making process (Eisenberg, Goodall Jr., & Trethewey, 2010). A horizontal hierarchy creates a high-density communication system, which influences the spread of innovation and affects how individuals adapt to change given their close participation in the process. This organizational structure promotes flexibility and adaptation for the organization as well as promoting the development of social and personal links between those discussing new ideas, thereby reducing risk to the members of the organization (Albrecht & Hall, 1991). Collecting data from Lutheran elementary teachers allowed the study of teacher reaction to a variety of changes rather than teacher reaction to change imposed from the top of the hierarchy.

Initial participants were recruited from three Lutheran schools, each employing around 20 eligible teachers working with three different principals. Recruiting from Lutheran elementary schools also provided a fairly homogeneous group of individuals with common experiences; a desirable attribute for GTM initial sampling (Creswell, 2013).

After initial participants were interviewed and the data collection/analysis process began, theoretical sampling determined future data collection. The researcher returns to the source of the data to elaborate, refine, and fully develop emerging categories and theories. (Hood, 2007; Charmaz, 2014; Creswell, 2013). This method is abductive, allowing for theoretical explanations to both emerge, and be strengthened by, additional data collection. (Charmaz, 2014; Morgan, 2007/2008; Peirce, 1958).

Data Collection

In a GTM study, data collection has increased flexibility because it fosters and requires follow up and verification. Theoretical sampling requires data collection based on what is uncovered in early interviews (Charmaz, 2014). This study began by interviewing three teachers in Lutheran elementary schools using the event history calendar and interview protocol found in Appendix I. The interviews were transcribed and analyzed to identify early patterns. This procedure allowed for a broad picture. Subsequent interviews allowed for a more focused look at emerging patterns (Charmaz, 2014). In total, nine teachers were interviewed using an Adobe Connect account through the University of Nebraska's information technology department.

The interview process began with the researcher contacting a principal of three large (> 500 students) Lutheran elementary schools and securing permission to recruit from among the staff. Each member of the teaching staff with at least four years, and no more than 25 years of experience received a recruitment letter (Appendix II). Potential participants were informed of their opportunity to give "voice" to the process of change, learned of the requirements for participation (e.g. possibility of further interviews), as well as information regarding the interview process. Before the interview, each

participant received directions for the event history calendar and the interview questions. The emergence of patterns in early data dictated subsequent interviews (Charmaz, 2014). Further participants were recruited, in the same manner.

The Event History Calendar was used to assist participants in remembering emotions and behaviors from past change events (Belli, 1998). The Event History Calendar assists participants with an activity designed to organize memories to facilitate the recall of more accurate details of specific events. (Belli, 1998; Freedman, Thornton, Camburn, Alway, & Young-DeMarco, 1988; Yoshihama, Gillespie, Hammock, Belli, & Tolman, 2005). Participants complete a matrix organizing data from personal history. This matrix creates a visual aid for memory by collecting landmarks that provide scaffolding (Yoshihama, Gillespie, Hammock, Belli, & Tolman, 2005). The scaffolding allows for the recollection of more details specific to the event. The process of organizing the events and the visual representation promote detail retrieval. The organization allows the participant to look for patterns and common themes that tie events together. When the time and sequence of events are remembered, more details surface (Belli, 1998; Freedman, Thornton, Camburn, Alway, & Young-DeMarco, 1988). A sample calendar is presented in Figure 1 (Appendix III).

Data Analysis

Data analysis in GTM involves simultaneous collection and examination of participant point of view and actions, of social processes including conditions, control and change, as well as uncovering meanings emphasis and omissions (Charmaz, 2014).

Instead of being a linear systematic process, GTM employs an iterative technique referred to as constant comparative method. Data was simultaneously collected and

analyzed, and each code, memo, and category were compared within and between groups. This process captures an emerging theory and assures the theory is grounded in the data from which it is derived. Additionally, each comparison has the potential to lead to further data collection. In this way, the data, and its initial analysis, guide subsequent data collection in order to develop and refine the emerging theory; a process described as theoretical sampling (Babchuk, 2011; Bryant & Charmaz, 2007; Charmaz, 2014; Creswell, 2013; Hood, 2007; Glaser & Strauss, 1967; Kelle, 2007).

The goal of data analysis is the emergence of a theory. The construction of the theory requires sensitivity to the issue, insight garnered from the field and synthesis (Glaser & Strauss, 1967). In order to stay within the guidelines of this method, it is imperative that the theory not be forced but be allowed to emerge in the ongoing process (Charmaz, 2014; Kelle, 2007). Data was coded; incident-by-incident then analyzed to find the most frequent and significant codes. The coding process moved on to focus coding and theoretical coding. The researcher added memos to the coding to engage in analysis and asked questions to begin to uncover categories. The emerging categories formed the basis for the development of the theory. Throughout this process, each level of analysis (data, code, memo, and category) was compared both within, and between, groups (Charmaz, 2014).

Coding began with the attachment of labels to individual incidents. The labels (frequently gerunds) described the actions, defined observations and formed the building blocks of the ultimate analysis. Focused coding explained larger segments of data and formed the initial decisions regarding which lines of analysis to pursue. At this point, thin areas of data become evident which led the researcher to return to participants for further

data. Theoretical coding began the process of determining possible relationships and developed a sense of coherence for the analysis (Charmaz, 2014).

Memos required the researcher to stop and think about the data beyond the attachment of labels and sorting into possible categories. Memos connected the researcher's thoughts and questions to the data and indicated possible categories, possible connections to extant theories as well as identified areas needing additional data. The constant comparative method is evident in the memo process as data was compared to data; data compared to codes, codes compared to codes, codes compared to categories and categories were compared to categories. Memos were a record of the researcher's pursuit of patterns and connections as well as the evidence of the emergence of the theory (Charmaz, 2014).

Categories are the definitions of the organization of the codes. The categories are supported with data and begin to form in the process of memo writing. Categories can be preliminary, but begin to take a more solid shape in the process of the constant comparative method and theoretical sampling to the point of saturation. Saturation is achieved when new data does not reveal new insights or properties. The analysis of categories allows the theory to form (Charmaz, 2014).

Establishing Credibility

The first step in establishing credibility in GTM is to choose and follow the prescripts of one particular method. While there are several strong methods recommended, it is not advisable to mix and match between techniques (Babchuk, 2011). Beyond consistency, there are recommended practices for establishing credibility that were utilized in this study:

1. Extensive data collection (Charmaz, 2014; Creswell, 2013) not only allowed for a thick description but provided material for comparison and the potential for theory generation grounded in data.

2. Careful and complete transcriptions (noting pauses, etc.) added to the richness of the data and assisted in exposing tacit meaning (Charmaz, 2014).

3. The constant comparative method created a form of triangulation when data were frequently compared and at every level of the theory development process (Charmaz, 2014; Creswell, 2013).

4. Member checking allowed the participants to review and elaborate on initial coding in order to verify the analysis (Charmaz, 2014; Creswell, 2013).

Research Permission and Ethical Considerations

Institutional Review Board (IRB) approval was required for this study. This study fits into the expedited class given the interviews with the participants were recorded, the study was conducted in a normal setting, the topic is not sensitive and the population is over the age of nineteen (IRB, 2012).

Participants were given and asked to sign, a consent form assuring them of their rights and securing their agreement to participate. Interview information was kept confidential, and the anonymity of the participants was protected through the use of pseudonyms if it was necessary to assign responses to a specific participant. All data including transcriptions, recorded information, and digital information was secured by password protection.

Role of the Researcher

As a former Lutheran school teacher, the researcher has a participatory role in this study. While I am no longer an elementary teacher, the relationship to this group continues in a consultant capacity. I did not personally know the participants prior to the interview stage.

Experience in this field afforded me a sense of empathy (the ability to see another's perspective), for the situation described by the participants. This empathy encouraged a deeper understanding of participant narratives. This is an example of when experience can enhance both rapport and credibility (Charmaz, 2014; Stake, 2010).

The problems inherent in completing research on subject matter close to me must be addressed. The participants will remain anonymous to prevent the likelihood that information can be traced to a specific setting. Additionally, the nature of Grounded Theory Method combines multiple perspectives rather than describing individual cases preventing the possibility that specific observations could be traced to an individual site or participant. In order to avoid bias on the part of the researcher the study employs multiple strategies of evaluation including the expertise found in committee members.

CHAPTER 4

FINDINGS

The purpose of this study was to generate a theory that describes the reactions of Lutheran elementary teachers engaged in a process of change. Teacher reaction to change affects the ultimate success of the change. Exploring the emotions, behaviors and perceptions of support lend valuable information to understanding the process of change.

The first section of this chapter clarifies the data analysis framework used to identify theory. This section begins with a description of abduction and the use of constant comparative analysis allowing for inter-group and intra-group comparisons between data, code, categories, and concepts. The second section of this chapter explains the structure of the central phenomenon developed from data analysis.

Data analysis framework

Data analysis in constructivist grounded theory makes use of the process of abduction (Reichertz, 2012) to determine theoretical plausibility, direction, centrality and adequacy (Charmaz, 2014). This coding process requires the researcher to ask analytic questions and redirect data gathering and code analysis as indicated by the emerging theory (Nagy Hesse - Biber, 2012). The process uses abduction and begins with initial coding. Initial coding is the practice of studying fragments of data, in this case, concept-by-concept coding. This type of coding continues the interaction between the researcher and participant, an interaction often lost when using forced pre-determined codes. Beyond initial coding, the analysis continues with focused coding seeking to subsume concepts into categories. The categories are grouped in the process of determining the

central phenomenon. The theme of the central phenomenon allows the theory to emerge (Charmaz, 2014; Nagy Hesse - Biber, 2012).

Abduction.

Abduction is a reasoning process utilizing both inductive and deductive practices pivoting on an emerging idea. The initial data analysis is inductive, allowing the data to determine the coding. At some point, an "inferential leap" (Reichertz, 2012, p. 200) reveals an idea. If confirmed through the deductive process of comparison and theoretical sampling, the idea generates a theory affording a plausible interpretation of the original observation (Bryant & Charmaz, 2012).

The process of abduction defines the turning point in the analysis of this data. I interviewed the participants to gain insight into individual reactions to change situations. The beginning coding process yielded a surfeit of coping strategies and responses, both those conducive to change and those that detracted from the change process. One of the first things noticed when comparing the initial interviews was the number of contradictory statements. In some cases, these statements were acknowledged as problematic and in other cases the statements simply contradicted with the descriptions offered by the participant.

The contradictions generated interesting insight into the veracity of participant statements. This insight led to new questions requiring coding. Coding inquiries focused on the participant's awareness of the contradiction and the ultimate effect of the contradiction regarding the accomplishment of change. As part of the abduction process, this led to re-coding of interviews and a fresh understanding of the data.

The first type of contradiction found was one of which the participant was aware of the contradiction. One participant, Gary, who on several occasions described himself as averse to risk-taking and reluctant to change admitted, "I've always been resistant to change, but I always seem to put myself in positions where I (laugh) have to change. I embrace it at the same time I reject it and fight with it." In this quote, we see how Gary has identified the contradiction. Further into the interview he contradicts his label of resistant to change when he describes a substantial self-directed change in teaching method.

> This methodology requires that the teacher be the book, the teacher to be the curriculum and decide make those decisions. It's awesome. It's a huge amount of work with it, but I recognized that in the minute I saw it in the workshop that I was at. So, that kind of change I embrace.

Although he self-describes as resistant to change he willingly took on this change despite its risks and the workload it promised.

At this point, the analysis continued coding contradictions. Some contradictions, while still moving change in a positive direction, seemed to be beyond the awareness of the participant. Consider Donna's response.

> It was very intimidating, but I, I just needed to tell them "Hey, you know what? You gotta help me. You have to help me – I don't get it." And getting over that hurdle and just fessing up . . . Because I felt like I needed to hide it and tell them I'm not competent.

Here, Donna shows a struggle with feeling incompetent, harboring a desire to hide incompetence while at the same time summoning the courage to expose it in the act of asking for help. The interesting aspect of this contradiction was the ultimate positive effect of asking for and receiving help. Again, this contradiction did not seem to hinder the progress of change.

At this point, the process of abduction required a pivoting from the inductive action of coding to the deductive action of looking for support for the emerging idea. The data presents a problem that demands resolution (Charmaz, 2014; Reichertz, 2012). Analysis of interviews yielded many examples of struggles that resulted in successful change. The question arose: what kind of contradictions and strategies emerge from a change process that did not accomplish the desired change?

Following the theoretical sampling procedure, I conducted additional interviews, using the same interview protocol. In these interviews, different examples of contradictions emerged. Some of these contradictions resulted in hampered efforts of change. For instance, the following example shows a teacher, Tom, who earlier in the interview identified himself as a willing changer. This same teacher was unable to see how his concern for parent actions interfered with change. When asked if there was anything more he wanted to add regarding his reaction to change, he responded with:

> I don't think so. You know, I think you definitely know how I approach change, how I feel towards change. How I am leery about change, but I'm not afraid of it. You know, I'm afraid of what the parents are going to do about it . . . The reason I work with kids is 'cause, you know, frankly dealing with adults is kinda tricky sometimes.

This quote suggests that Tom is not aware of his contradictory reactions. Given he is both unaware and fearful points to additional struggles for him in a change situation. He might approach the change assuming he has no problem with change and then perhaps not recognize how his fear of parent reactions is needlessly preventing him from trying something new.

At this point, a new idea begins to form. A situation of change is one of ambiguity as there is uncertainty surrounding anything new. Teachers cope with this ambiguity in

many ways resulting in specific strategies used to accommodate both the ambiguity and the change. The emerging theory was shifting from identifying different teacher reactions to identifying reactions and strategies that promote, rather than detract from, change. The theory of resilience began to emerge.

Grounded theory method places emphasis on conceptual development rather than description. Interviews are seen as a tool for gathering data that will be used for the development of a theory. This idea of resilience needs particular stages of growth to be realized as a theory.

Theoretical plausibility.

The concept of theoretical plausibility reminds the researcher that while participant veracity is an issue, the focus is on the theory, how it develops and how well the data support it. Interview statements are considered plausible – as a type of hypothesis. Support is garnered in comparisons and the development of clear and substantiated patterns. As seen in the examples of contradictory statements, even an inaccurate assertion can yield valuable insight supporting the plausibility of the emerging theory.

As an example, when asked about his emotional reaction to change, Tom responded simply: "Typically, excited. That'll sum it up." However, in the course of the interview, in describing change situations he used the words "struggle" or "tough" eighteen times, and the word "fear" close to a dozen times giving further evidence of his ambiguous feeling toward change. The data began to suggest that similar reactions, in this case, contradiction can work to promote or detract from the change process. With

new data opening up interesting possibilities, the process begins to take on the theoretical direction (Charmaz, 2014).

Theoretical direction.

This process of constant comparison within data categories and between the data and the emerging theory is what gives strength and support to the theory. Emerging patterns send the analysis back to the interviews for re-coding. In this analysis, the pattern of positive contradictions was countered by evidence in one interview of contradictions with negative consequences. This change in pattern directed analysis back to original data to look for further evidence of contradictions and the significance of positive and negative consequence. Memos regarding pattern emergence and disruption further helped to clarify theory formation.

The process of asking questions and returning to data for answers, while simultaneously adjusting patterns and creating categories, not only helps the theory to materialize but also works to build support for the emerging theory. The theoretical direction begins to take shape as the patterns begin to support the emerging idea. The process then shifts to theoretical centrality (Charmaz, 2014).

Theoretical centrality.

With a theoretical direction established the process moves toward dropping less useful codes to focus on the central idea that is found in repeating patterns. In the process of initial coding, concepts become categories as stronger codes absorb useful, related codes (Charmaz, 2014). Table 4.1 delineates the process by which initial codes became categories.

Table 4.1

Theoretical Centrality Process for Determining Categories

Initial Codes	Centrality Process	Category
1. Displaying contradictions	Converted to category	Contradictions
2. If, then 3. Requiring provision for change	Provisions collapsed into If, Then	If, Then
4. Yes, but 5. Concerned about effects	Effects collapsed into Yes, But	Yes, But
6. Finding environmental supports 7. Using internal supports 8. Establishing relationships	Merged into new category	Support Systems
9. Positive coping 10. Negative coping	Positive and negative coping merged into a new category.	Battle Through
11. Emotional response 12. Attitude toward change 13. Implementation of change	Emotional, attitude, and implementation each collapsed into Battle Through	
14. Religion 15. Faith	Merged into new category	Religion or Faith

The initial coding of the first interview identified 145 concepts loosely sorted into 11 codes. After coding the subsequent interviews, the concepts were compared and re-sorted. These new concept codes were then compared with each other. Then, concept codes were compared with emerging categories as indicated by the constant comparison analysis procedures (Charmaz, 2014). When later interviews yielded new concept codes, previously coded interviews were re-analyzed for new concepts. This process continued until initial coding was complete and concepts were ready to be grouped into categories.

Memo writing is crucial to the process of creating categories. Memo writing encourages the researcher to stop and to analyze emerging ideas and record thoughts regarding the process. It is a process that proceeds back and forth from naming a concept and contemplating possible reasons for sorting codes and is a key grounded theory technique critical to the development of theory (Charmaz, 2014). In this study, early memo writing redirected focus from describing types of individuals to describing types of coping strategies. Other memos noting frequency in particular word use helped to identify the importance of contradictions as a category. Later in the process, memo writing contributed to refining the theory and its explanation.

After the initial coding of concepts, I mapped the codes onto large sheets of chart paper allowing all examples for each category to be considered and sorted. This action, combined with memo-writing, brought new understanding to codes that helped to form categories. For example, I separated positive coping strategies from negative strategies as this pattern became evident. Later, I merged these two codes into a larger category labeled with an in vivo code "battle through." "Battle through" was a term used by one participant five times through the course of her interview. She used the term in connection with descriptions of struggles as well as strategies, saying: "I take classes, and I mull about it and I complain at home, and I lean on my coworkers, and I pray a lot, and I just battle through." This example lists positive strategies mixed with evidence of worry and frustration. The term seemed to fit the category well. The "battle through" category did not seek to identify those who simply succeeded in change, but rather those who found ways to cope and accomplish change. This new category allowed for codes that

identified attitudes, implementation, and emotional response to now be collapsed into one larger category with its emerging theme of resilience.

At this point, the newly formed category seemed to take on a life of its own. New examples combined with previous examples creating new insights, which led to a new organization. For instance, examples of various codes listed in the battle through category re-organized into internal and external coping strategies.

Internal coping strategies included evidence of self-reflection and actions taken by the individual. This combination is apparent in this interview quote from a technology teacher, Sarah, charged with the work of assisting teachers in adopting new technology.

> I did get to the point where I said this isn't going to go any further until I have some time to manage what you've put me in charge of and to learn more about what I've been put in charge of.

External coping strategies included participants who recognized a personal need and observed strategies to accommodate that need as seen in Donna's description of how she adopted new strategies when frustrated with the available help for technology:

> And then another thing that I learned from another teacher, who was my age, she wrote down a lot of instruction. And, that's something else I had to figure out I had to, to just do it. I had to do it step, by step.

After sorting the codes from the "battle through" category into internal and external examples, I compared this to the "contradictions" category. The result was consideration of the outcome of these strategies for the management of change. Which strategies would move a teacher toward change and which leave a teacher vulnerable to unsuccessful change? Note the contrast in these two quotes:

> I thought maybe some parents would be a little worried that it [common core state standards] was so political. And, there is a lot of different things out there about (laugh) the standards. But, we tried to address it at the beginning of the year and had a little presentation for them to give them

the background and to let them know what I had done over the summer to prepare. So, they felt like we were making a choice based off of, you know, actual reasons that will help their students.

And:

So to me that says that, if approached correctly [uniforms] if seen how well it can actually work, it would be a struggle for some time, but people would understand the reason. I feel that would eventually happen. The problem is, can we risk losing ten kids in our school because of it?

Both participants are in favor of the change they face, common core state standards, and uniforms, respectively. In both situations, the participants are working toward achieving the change. While both quotes refer to parent concerns, one participant chooses the strategy of addressing the issue with parents, while the other participant chooses to see parent opinion and action as an obstacle.

Through the study of the data in this category, it became apparent that the analysis was shifting away from identifying individual reaction to change. The theme emerging from the data highlighted the strategies used by individuals. It became clear that the emerging theory was not going to focus on individuals who change easily in comparison to those who are reluctant to change. Instead, the data indicated that most of the participants struggled with change. However, some employed strategies in ways that are more likely to result in a positive outcome regarding the change. These strategies worked to create resilience when the participant was faced with the stress and frustration inherent in the change process.

Theoretical adequacy.

In many qualitative methods, the end of interviewing coincides with saturation; when subsequent interviews are no longer yielding new information contributing to theoretical development (Creswell, 2013). In GTM, the goal is always focused on the

emergent theory. Theoretical sampling sends the researcher back to the data – either to data already gathered for new information or perhaps to new interviews. The goal is to support the emerging theory with robust categories (Charmaz, 2014).

In this analysis, coding processes for the initial interviews led to early saturation in coding. The teachers were from two different schools, and each teacher had experienced several changes, some of which overlapped between interviews. I realized that, while my categories had strong support from interview examples, the theory remained incomplete. Theoretical sampling includes comparing codes and asking further questions. It can also include seeking out more interviews. It is important to note that in GTM saturation of data is not sufficient. Theoretical sampling means that saturation of the theory is also sought (Charmaz, 2014).

One of the participants indicated in her interview that she had recently left a school that struggled with the adoption of new technology. I recruited teachers from this school and was able to complete additional interviews. The result of the coding and analysis of these interviews introduced new codes having to do with negative aspects of previous codes. The code category of "yes, but", which focused on repercussions of the change, took on a different meaning in the new interviews. For instance, when discussing the adoption of a new, stricter dress code, Tom chose to focus on the problems created rather than the solutions tried. The new policy was a nightmare for teachers to enforce, it caused problems in relationships with students, and many teachers simply ignored the dress code guidelines making enforcement for other teachers even more of a challenge. For Tom, these repercussions defined the change. It is easy to imagine the frustration in his voice as evident in this quote.

> And, almost every other day our lunch period it's "Oh my gosh
> look at that one. Oh, look at that child, look at that child" and you
> can't just sit down and have a nice lunch. It's constantly being
> managed, constantly. It's a never ending part of our day.

This reaction stood in contrast to a previously interviewed teacher who described problems created by a change in scheduling that gave him 50% more students. For Gary, the increase in workload made it difficult for him to teach within his preferred methodology. In his discussion of the change, he moved on from describing the problem to identifying how he had compensated for the change. He even mentioned a resulting benefit for his students: "And, another thing that I did was I looked at my management and I realized that I'm going to have to place more on the students. They're going to have to step up more."

The result of understanding the difference in reaction brought support for the emerging theory of resilience. I began to see how the same coding categories could identify a situation that could be positive for change and a situation that could leave teachers vulnerable to failure in change.

Without employing the process of theoretical sampling leading to theoretical saturation, I would have missed this insight. With the goal of supporting the theory, theoretical sampling sent me looking for additional sources of data to refine better and understand what the interviews were revealing regarding teacher reaction to change. The next section explains the emerging theory as the central phenomenon.

Central phenomenon

Trees make an excellent visual metaphor for resilience. A tree, in a perpetual state of growth, outlasts the elements by bending to avoid breaking. Trees growing in areas of relentless wind will grow away from the wind. Such trees accommodate the elements of

weather and in this accommodation develop resilience to weather's inevitable harsh effects. Trees respond to the environment in an interactive way. They derive strength from environmental nourishment and build strength by planting roots deep in the ground. A teacher demonstrating resilience will likewise be relational and interactive with the environment and the circumstances. These assets build protective elements creating a continuous, yet flexible ability to adapt, grow, and survive while experiencing stress-related growth within the context of trusting relationships (Doehring, 2015; Smith, Ortiz, Wiggins, Bernard, & Dalen, 2012).

The visual diagram below illustrates the basic structure of the theory emerging from the data collected in this study: The Resilience Model of Teacher Change. Resilience is the trunk of the tree. Resilience gives the teacher the strength needed to persist in change. The first branches from the trunk are the protective factors of resilience: positive attitude, self-regulation, problem-solving, supportive relationships, sense of meaning, and community resources. Ambiguity, contingency, repercussion, support, strategy, and faith make up the upper branches of the tree.

Just as in the branches of a tree, the aspects of resilience in each category overlap in a way not easily illustrated. The relationship between the lower and upper branches is one of support for the entire tree, not just the connecting branch, as the lower branches allow the upper branches to expose the leaves of the tree for nourishment.

In the resilience model of teacher change, the protective factors of resilience feed the decision-making processes as a teacher moves through ambiguity, contingency, and repercussion. The nourishment of the protective factors of resilience creates an environment allowing a teacher to interpret ambiguity, to meet the needs of

contingencies, and to prepare for the repercussions of change. Furthermore, these same protective factors influence a teacher to find support, use adaptive strategies, and to find an accommodating use of faith as he or she navigates the process of change.
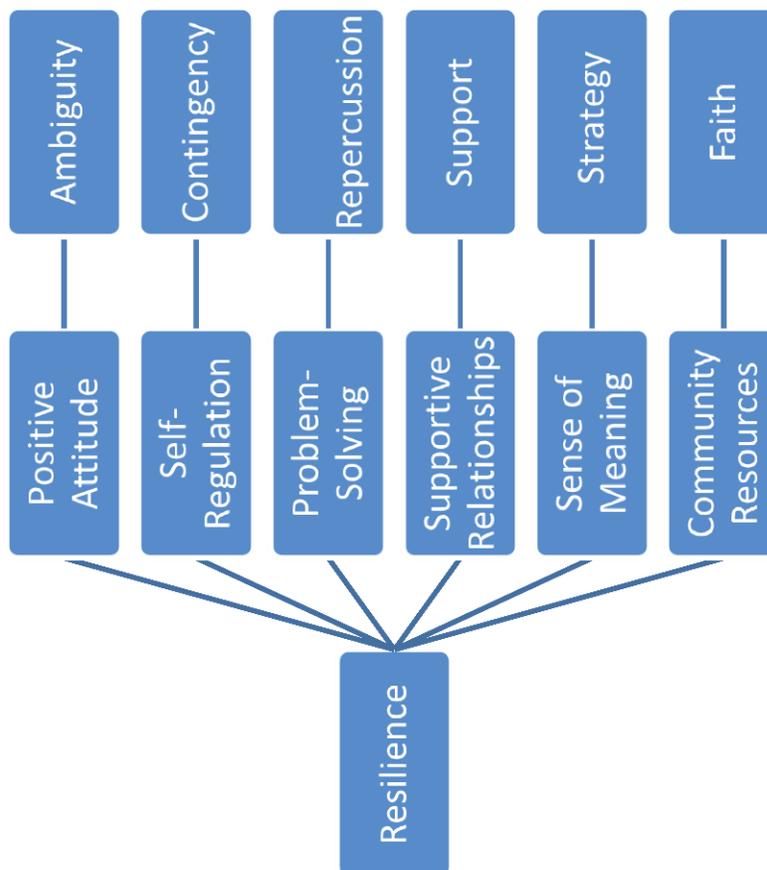
Figure 4.1 *Visual diagram of theory: The Resilience Model of Teacher Change*

In interviews, teachers described the predictable reactions to change; some were excited and sought out change, while others viewed change as a burden. Nearly all, however, admitted that change in educational settings was inevitable. The key difference in teacher reaction to change suggests resilience as an essential factor in the successful adaptation to change. Some behaviors, reactions, or strategies make an adjustment to the

winds of change more likely. Other perspectives or behaviors result in vulnerability

rather than resilience.

Table 4.2 provides a concise explanation of The Resilience Model of Teacher

Change, including resilience, the six protective factors of resilience and the remaining six

categories of the theme. These include the challenges found in ambiguity, contingency,

and repercussion, as well as those aspects that influence resilience, support, strategy, and

faith.

Table 4.2

Central Phenomenon

Code	Explanation	Sample Quotation
Resilience	The ability to adapt and grow in response to change including a positive attitude, self-regulation, problem-solving, supportive relationships, sense of meaning, and community resources.	It's just a challenge. I've learned from it. I think I needed to go through it. And it's made me a better teacher. I'm at the age where I'm starting to see that this is just part of life. And you hide it, you fight back, then you start to learn, you grow, and you find your way.
Positive attitude	An positive affect that encourages teacher to have more confidence in the change process	There's a handful of teachers that I kind of know agree with me. They like change; they kind of get excited about new strategies or just different things going on at school. And then some of the teachers that I'm closest to, they really don't like change and they usually need a lot more convincing to get on board with something. It takes a little bit longer.
Self-regulation	The ability to regulate emotions, mental focus, and actions to facilitate change.	I started at the middle school and then I went to the high school and then after school I coached tennis, so I just felt like it was really hard to manage everything. There was a just a lot to do . . . I learned ways of organizing and I learned ways of taking advantage of the time I had.

Problem-solving	The ability to identify, solve, and evaluate problems in the change process.	Managing the iPad carts is the biggest pain in my patootie . . . It's just so labor intensive that quickly I've had to put some things in place in order for that to work. Otherwise, that just ends up being a time-sucker.
Supportive relationships	Relationships with family, peers, and administration that provide resources for navigation of the change process.	I think we're all kind of in the same boat. I think we like things to stay the same when it's comfortable and fun. And we don't want to change when it's involving things that just seem unfamiliar and scary. And, we support one another that way.
Sense of meaning	A purpose or value shared by peers that assist a teacher in regulating emotions and evaluating change.	I think that's what makes a teacher effective is their willingness to change and adapt to new, to meet the needs of students. Ultimately, that's what it's all focused around. It's just being a successful teacher, and meeting the needs of your students and helping them along the way.
Community resources	Resources, such as training, time, and support that are available for teacher use in preparation for and during the change process.	I decided to go to different workshops and try to figure out as much as I could about it. So, I knew just the background. . . So, after I did all that I felt much better because I just knew the background. . . I kind of got to hear first-hand what they're all about and where they're from.
Ambiguity	The struggle involved in the process of change that forces a teacher to re-examine feelings and motivations caused by the change.	There are those of us who embrace change like a dance, some that sort of hem and haw, and others were dragged kicking and screaming the whole way. I probably fall into that last category (laugh). It just depends.
Contingencies	The conditions necessary for change to take place. Contingencies include aspects of the teaching environment as well as leadership and individual teacher engagement in the process of change.	I wasn't asked my opinion about it. And I think that's what made it really hard to buy into it. It was just simply here you go, figure it out, and then teach everyone, for all of the technologies that we used.

Repercussions	The consequences of a change that can lead to growth or create obstacles that might slow or stop change.	But, didn't necessarily think about how in four years, how um, how that would look in the school. And so, four years later, it's not looking so good in the school and teachers are not happy about it.
Support	The aspects of a change situation that lend support to the individual working through change. Support comes from relationships with both administration and peers.	I think the full nature of understanding technology itself that people don't get it by osmosis; they have to have some training. Because of the lack of professional development time, I've started creating tutorials and videos for the teachers because it just seems to be, somehow or another I know they need to have that information in their hands, and so I'm kinda set out to do that.
Strategies	Techniques used by teachers to cope with challenges associated with change. These challenges can be external, involving the circumstances of the change, or internal, involving personal reaction to change.	Like I said, if I really believe in what the change is, I'm all for it. There's no dragging and kicking and screaming. I just dive in. If it's, if I'm not sure of it I kind of, you know, it's like wading into the swimming pool as opposed to jumping in. And then if I don't see the value in it I kick and scream and fight.
Faith	The aspects of individual teacher's faith that affect the change process. Faith can offer emotional support and provide a shared sense of meaning or purpose.	No matter what I was feeling – excited, nerves - Is this the right idea? Is this what I should be doing? – knowing that God was in charge, and that was what I needed. . . God never promises that it's going to be easy . . . There will be problems. We will have obstacles. However, God promises that he will never leave us.

Resilience.

In the context of change, resilience is the ability to adapt and grow in response to change. The protective elements of resilience include a positive attitude, self-regulation, problem-solving, supportive relationships, sense of meaning, and community resources

(Masten, Cutuli, Herbers, & Reed, 2009; Ong, Bergeman, & Chow, 2010). The following

quote shows resilience as described by veteran teacher, Gary:

> It's just, you know, it's a challenge. I've learned from it. I think I needed
> to go through it. And it's made me a better teacher. I'm at the age where
> I'm starting to see that this is just part of life. And you hide it, you fight
> back, you, then you start to learn, you grow, and your find your way.

Resilience allows a teacher to recognize a challenge and meet it head-on. The

result is often a better, stronger teacher able to identify and use personal strengths.

Resilience in a teacher can promote positive participation in change, which leads to better

change; change that is evaluated and adapted to the particular needs of the school,

teachers, and students.

Positive attitude.

A positive attitude is one of six protective factors of resilience that work to

encourage successful change. A teacher's attitude toward change, positive or negative,

will set the direction for developing resilience and accomplishing change, or for finding

obstacles to change. In this quote, Lana describes two kinds of teachers in her school:

> There's a handful of teachers that I kind of know agree with me. They like
> change, they kind of get excited about new strategies or just different
> things going on at school. And then some of the teachers that I'm closest
> to, they really don't like change and they usually need a lot more
> convincing to get on board with something. It takes a little bit longer.

Those who approach change with a positive attitude build a type of protection

from dwelling on the negative. A positive attitude is especially beneficial for the initial

assessment of change as a way of reappraising a situation to find the potential for growth.

In this quote, Renee gives an indication of the decision process involved in choosing a

positive attitude strategy.

So, I can either have a negative attitude towards it and say like – I
really just hate this, this is not okay – things like that. Or, I can just
try to . . . have some positive energy towards it. So, I think that's a
better way to go, is just really trying to be. . .yeah, maybe it's
going to make more work for you, yes, maybe it's not always
going to be fun. But, change is change and it's gonna happen, and
you got go in there with positive attitude.

While Renee is speaking of change in the abstract, her comment shows evidence

of assessment as she admits that change brings on extra work. In this instance, she uses

the positive attitude as a strategy to help her to cope with the negative aspects of change

and redirect her thinking to a more adaptive perspective.

In this quote, Sarah shows how a positive appraisal of a frustrating situation can

bring about a growth opportunity.

I can pick up things fairly quickly but (pause) it was really hard,
you know, because there wasn't anyone around me that I could talk
to being even a large size Lutheran School we were pretty much
first adopters and I didn't have a network of other computer
teachers to talk to, or other technology teachers to talk to. I just
really had to teach myself.

Sarah's complaints regarding the change were legitimate. She had a large

responsibility and little time to accomplish the goal. Her general positive attitude

transforms her complaint to an appraisal of the situation and leads her to the solution.

A positive attitude can be cultivated and inspired in others. Here Sarah shares her

excitement about a new technology with the teachers she instructs.

I'll do the same with my own teachers, you know. . . I think
initially they were like "How are we going to use this?" And I was
like, "Oh my gosh, just watch, look at the things that we can do!"
And then they saw for themselves how exciting something was, or
how fun something was, and how it really changed something in
their classroom. And they had some success.

In the following quote, Sarah illustrates how positive experiences with change

offer the protection of resilience for future change.

> I can think of a time when we made a change, and I wasn't sure
> how it was going to go, and there were some things that didn't
> work out the way I was expecting and I think if you're still solid on
> the change and still solid on the understanding the process behind
> it, you'll make it work. So, even if something doesn't go the way
> you thought it would, and it still turns out really well, and maybe
> there are even still some parts of this where you are like, well this
> could even be better, I think that as long as you see some positive
> results, and you see a change that has worked out for the better,
> you are even willing to go onto the next step and say, "You know
> what, this was fabulous, I didn't think it was going to be, but
> yeah!"

Self-regulation.

Resilience in change is enhanced by a second protective factor. A teacher's ability

to self-regulate emotions, mental focus and actions is crucial in allowing a teacher to

navigate the change process. Emotions can get in the way of real problem solving,

interrupting focus, and delaying appropriate action. In the following quote, Ann is

balancing teaching positions at two different schools. Her change in assignment involved

teaching a new age level. Self-regulation helped her to survive busy time-periods

knowing she could make the best of her time later:

> I started at the middle school and then I went to the high school and then
> after school I coached tennis, so I just felt like it was really hard to manage
> everything. There was a just a lot to do. . .I learned ways of organizing and
> I learned ways of taking advantage of the time I had. But, when tennis
> season was over was when I could really focus on getting things in order,
> and figuring. And, then I coached tennis again in the spring so in the
> wintertime was when I was able to learn from my mistakes and really
> prepare for the spring time.

Self-regulation is a protective factor of resilience because emotions play a

significant part in the response to change. Just as a positive attitude will create a healthy

beginning to change, self-regulation will continue this process by identifying and coping

with emotional reactions that might interfere with decision-making processes. There are

varieties strategies found in this study that point toward self-regulation. For instance, two

participants took note of the importance of evaluating the initial reaction to the

announcement of a change. Here is a quote from one of these interviews. Ian describes a

way to self-reflect after an initial announcement of a change.

> But then, the next thing I want to do . . . is take a step back and
> look at myself and find out how I am dealing with the change. Am
> I asking the questions because I'm nervous and concerned? Or, am
> I asking because I am just thinking? . . .Typically if it is because I
> am nervous I just kind of am saying I need to open it up and see it
> for what it is.

Another strategy relating to self-regulation includes ways of moderating the

negative effects of stress. The following quote is from Donna, who identified her reaction

to change as being one of anxiety.

> I worry, and I stay up late at night when I know it's a big change.
> And, if it's a good change, I still worry and stay up late at night
> and can't sleep because I'm excited. And, it just, it causes anxiety.
> . . I mean, I know that there are things that really need to be
> changed, or are inevitable, and I, sometimes I can just really go
> with it. But, if I'm sleep-deprived, and stressed, change is a lot
> harder. . . Truly, I have to exercise. I know that sounds just kind of
> cliché. But, I have to exercise, I have to eat right, otherwise, it's
> gonna, it's gonna get me.

Donna did not give into her anxiety. Instead, she evaluated and identified her

reaction and found a constructive way to alleviate stress. This kind of coping strategy not

only helped with the immediate change, but it represents lifestyle decisions that build

resilience for future change as well.

Finding support from peers is an additional coping strategy mentioned by

participants. As the previous quote indicates, talking about change is important to self-

regulation. In fact, all of the interviews gave evidence that support from peers was an important aspect of accomplishing change. Donna shows how peers can help to alleviate fear simply because they are a reminder that others also struggle with the change.

> Just being in among my colleagues who were having the same
> issues made me feel better. Even the thirty-somethings were
> having issues. I felt so much better just knowing that It's not
> always the user really helped me out a lot. Then I wasn't so afraid.

Problem-solving.

Resilient reaction to change also includes problem-solving as a protective factor. Problem solving indicates that the challenges of change have been identified; that the teacher has considered what can be done to make the situation better, how can a difficult change be managed, or what can be done to move the change along. Consider the following quote from Sarah a technology teacher. Here she identifies both a challenge and a solution.

> Managing the iPad carts is the biggest pain in my patootie. . . It's just so
> labor intensive that quickly I've had to put some things in place in order
> for that to work. Otherwise, that just ends up being a time-sucker.

This teacher did not choose to sit on the problem by complaining or ignoring the burden posed. Instead, she acknowledged the problem and devised a workable solution.

The protective factor of problem-solving creates resilience when it encourages a teacher to transform contingencies and repercussions from obstacles to opportunities. For example, finances are often an obstacle to change. One respondent shared a narrative of his request for a computer lab for the school. This request was met with the assurance that there was no money for such a project. Instead of seeing this contingency as the end of his request, the teacher created a committee of like-minded teachers and researched how to fund computers for the school.

This ability to see the personal control was instrumental in helping Tom to deal with negative repercussions of an extremely strict dress code policy handed down by the school board. A complicated system of reprimands was taking excessive instructional time and showing few positive results. Tom petitioned the school board with an alternative solution that took less time and yielded better compliance with the policy. Knowing there was something he could do is evidence of resilience as this teacher moved beyond complaining and took action to accommodate the change orchestrated by the school board. Tom realized he could not control the change, but he could control his response to it. In this understanding, he found a solution to at least one repercussion of the change.

Supportive relationships.

Supportive relationships are a fourth protective factor of resilience. When teachers find and develop supportive relationships, then positive attitudes can be used to move teachers forward in change, even in challenging circumstances.

> I think we're all kind of in the same boat. I think we like things to stay the same when it's comfortable and fun. And we don't want to change when it's involving things that just seem unfamiliar and scary. And, we support one another that way. It's like we are really kind of on the same page that way. I have good people. I work with good people.

All of the research participants identified supportive relationships as being a contingency for change. Participants described supportive relationships in several different ways including the development of cohesion, dialog, and support in problem-solving. While not all teachers would describe themselves as extroverts, Renee gives a strong indication of why supportive relationships were necessary for the change situation she experienced.

> I would just say the teachers and staff were extremely helpful and being really encouraging, and supportive, and welcoming. And, that alone, to me, was huge. You know, having that supportive background, and I'm such a people person I love being around people, and, I don't like to be alone, so, just having that welcoming, warming support group that I knew that I was coming into was really big for me.

The development of strong supportive relationships on a staff results in a robust sense of cohesion. Cohesion comes from the knowledge that others are supportive of individual viewpoints and maintain similar goals regarding the change. Tom describes how his colleagues support his reactions to change.

> The ones that I'm constantly working with, the 6th, 7th, and 8th-grade teachers, I feel we are literally firing on all of our cylinders. We agree with changes that are done. We share our opinion when we are worried about a change coming up. And many times, you know, I'll say something, and I'll get a tap from my colleagues . . . in the same grade range and we will say the same thing.

When the anxiety is tempered, when there is a feeling of trust and the cohesion that comes from shared values, then dialog regarding change can become a source of excitement in the change process. Lana self-describes as comfortable with change. For her, the dialog surrounding change is something she relishes.

> It's [change] something that I enjoy. I don't know if this will make sense, but sometimes, the drama of the change is kind of enjoyable. Everyone's thinking about it, debating – is it good, is it bad? I kind of enjoy that part of it too - talking about it at different meetings.

Most of the participants mentioned dialogue as a strategy for adapting to change. Several gave examples of discussion with peers bringing about concrete solutions for problems created by change, as did Gary in this example.

> I was just at a breakfast with a friend who was talking about a book he recently read. I love to read, and I love to keep up-to-date and he recommended it. It's called Growth Mindset, and it has nothing to do with teaching, but it has everything to do with teaching.

For the change the Gary was experiencing, this discussion yielded a solution to a problem that arose from the change. He took this solution back to his school and through supportive relationships; it became a topic of study amongst the staff. In this way, he encouraged a future change for the school.

Sense of meaning.

A shared sense of meaning represents the fifth protective factor of resilience in the process of change.

> I think that's what makes a teacher effective is their willingness to change and adapt to new, to meet the needs of students. Ultimately, that's what it's all focused around. It's just being a successful teacher, and meeting the needs of your students and helping them along the way.

Here, Renee shows how a shared sense of meaning can ameliorate some of the challenges of adapting to new situations and teaching methods. A shared sense of meaning, or purpose, can help to reframe a challenging situation to put the struggles into a positive perspective.

Although the question was not specifically asked, nearly half of participants listed the needs of the students as the primary reason for change. A shared sense of meaning is especially important when change results in disagreements among faculty members. A stressful situation can shift priorities, but a shared sense of meaning will refocus a disparate group (Halgeson & Lopez, 2010). As Renee stated, "Ultimately, trying to make changes for the betterment of your students is what we're all about."

Encouraging teachers to reframe the struggles of change is a relevant example of the resilience developed through a shared sense of meaning. Donna, who admitted she struggled with technology changes, used a shared sense of meaning as a strategy for

dealing with her frustration. Because she knew this technology change was what was best for her teaching and for her students she found reason to accommodate the consequences of the change. In her narrative, Donna went beyond her teaching situation and identified a benefit regarding her relationship with her father.

> My dad was just starting to figure out how to do Skype and being a computer pioneer this was very exciting for him because there was a time when we were kids when he would talk about that. He said it's only a matter of time where you'll be able to see face to face. People just weren't buying into what he was saying. And he was right. . .Which was so new for me to be able to teach him when he used to teach me.

Participants frequently pointed to the strong tie between their faith and their purpose for teaching. Other participants made a connection between faith and growth. The following quote is from a Lana, who equated her faith with the responsibility of student growth. This value is a part of her philosophy of education as well as her perspective on change.

> At the root of everything, we want our students to be successful and to have a really strong relationship with God. So, it's kind of, everything I do, it's always what's best for them. It's a well-rounded student, not just academically, but with their beliefs and their faith, so I'm always open to change if I can see that it's going to be a positive impact for them in many of those realms, not just mathematics.

For Frank, a personal faith was not only a part of a shared sense of meaning but also an impetus for change itself.

> I think that my religious views shape . . . who I am and everything that I do. I think that being the best teacher . . . and growing and changing . . . has stemmed from my religious views. I don't think necessarily, my religious views necessitate, they don't dictate that you must always be changing in your profession. But I think that it's just a natural byproduct of what we do.

Community resources.

Community resources, the sixth protective factor, make other aspects of resilience more likely. In Lutheran elementary teaching, the community consists of the school, the parents of the children in the school, and the church that sponsors it. Teachers with resources are better able to weather change and to support each other in dealing with the challenges of change. In the following quote we see community resources such as professional development and individuals with expertise helped to prepare Lana to implement common core math standards:

> I decided to go to different workshops (laugh) and try to figure out as much as I could about it. So, I knew just the background. . . I went to a conference which is all technology based, I went to [name of local university] that has a math common core training that I went to. So, after I did all that I felt much better because I just knew the background. I actually got to talk to a woman who was on the committee in [name of state] that adopted the standards. So, I kind of got to hear first-hand what they're all about and where they're from.

In describing the environment necessary for change, over half of the participants mentioned communication issues as being critical to the success of change. Clear communication is essential for teachers to implement change, but as Sarah indicates, it is also important for team building.

> I think there are administrators who are very clear in their communications. Are very honest about what they are expecting and about what they're hoping for. . . I think there's also a component of being a part of a team, and knowing that you're part of a team, knowing that the administrator respects you, listens to you. Those I think are all components of being able to change in the best way possible.

Aspects of communication relevant to the environment of change also include a sense of support as well as the opportunity to discuss and evaluate change as it

progresses. Sarah indicates the importance of an on-going relationship with the administration in the following quote.

> I think that the main thing I need is just the support of the administration. I mean change is much easier when you go to your administrator and say "Hey this is what I think we need to do. This is why I think we need to do it. This is how I would like to implement it." And then there's a dialog involved, and you know you feel a sense of support.

Creating an environment for change that encouraged teachers to try new things was mentioned by a third of the participants. These teachers spoke of having the freedom to experiment, knowing they had support from their administrators. Renee took comfort in her administrator's perspective on failure:

> One thing that my administrator has told me from day one is that failure is okay and that it's okay because it means that you are willing to try new things and that you are willing to adapt and make changes. As long as you're not failing all the time, but you know failure is an okay thing. And I think as long as you are reflecting and learning upon those experiences. . . it can really benefit you in the long run.

The assurance that she would not be criticized for failure, but would instead be encouraged to reflect and learn created a comfortable place for this teacher to adapt to change. She did not have to worry about her reputation with the principal if she made a mistake or took criticism from parents when learning a new change. In her community, the emphasis was on learning rather than performance.

Accesses to training and assistance are critical aspects of community resources. Here Donna expresses gratitude for her administrator's open-door policy.

> But he [principal] always tells me you can come and see me anytime, and I know I can. And I don't go to him with frivolous requests so that I know I can ask him for any help at any time. He's really good about helping me out.

An open-door policy not only supports training but also works as a reminder that adapting to change takes time beyond the preliminary change initiative. It is also important that the change plan take into account when in the schedule this learning will occur. If this is not done then, the training necessary to learn the change just becomes another layer of work as the teacher now has to allocate personal time or planning time for this task. Lana explains the need for time in this way.

> At the beginning of the year I have tons of ideas that I want to try out. And then pretty soon it hits this time of the year and I go "Oh yeah, I never did that." So, it's just important to have time during the school year. Not just after school or when I'm at home to try to figure out how I am going to implement these changes.

Another important community resource identified by participants was the management of inevitable obstacles that occur in the process of change. Change causes unintended consequences. Those involved in change want to know that these consequences can be adequately managed. When the school community does not adequately manage unintended consequences, future change is at risk of failure as trust in the change process diminishes (Rogers, 2003). This kind of on-going management of change is an important community resource as it assures teachers that negative repercussions will be addressed.

Parents in a school community are a good example of why change requires on-going management. Parents are typically outside of the decision-making process regarding change at their children's school, but for some changes, parents are part of compliance. Tom related a situation in which the frustrations of parent involvement in a change in dress code policy became problematic. The school board dictated the new

policy with no input from parents or teachers. Then these two groups were charged with enforcement of the policy. Tom described the problem as follows:

> Okay, parents wake up and they have a thousand things to do and the last thing they really want to do is just start going through the closet and you know. . . getting stuff that is appropriate for school. But, at the lower grades the parents we found just don't want to deal with it.

For many reasons, parents often do not have the same motivation to follow a change in policy as the administration may assume or prefer. For some changes, parents may lack the understanding or training to be able to comply. Occasionally parents disagree with the change and may fight it directly or with non-compliance. In the incident described by this teacher, parent non-participation meant more work at school because clothing choice outside of the boundaries of the new policy needed to be addressed.

Furthermore, parents can be a negative repercussion of change that can increase anxiety for teachers. Tom described a situation that left him vulnerable to problems with parents. A retired principal whose management philosophy encouraged the teachers to be sure not to cause problems with the parents was administering his school. In a situation such as this, a teacher is not encouraged to make changes, or to even try something new, as he must assume that he will not be defended in the face of parent opposition or complaint.

The achievement of parent support and participation in change is an imposing challenge. It is a challenge that cannot be ignored by the school community in the process of change. Knowing that one's actions in promoting change will be defended in the face of parent complaint is an imperative as a community resource.

Resilience and its six protective factors make up the trunk and the lower supportive branches of the tree. Moving up to the next level of branches, the resilience model of teacher change is further explained in the description of ambiguity, contingency, and repercussion, three aspects of change that present teachers with challenges. In these challenges, teachers have the opportunity to practice resilience. The final three upper branches, support, strategy, and faith give further examples of resilient aspects that move the process of change forward.

Ambiguity.

Ambiguity represents the struggle involved in the process of change that forces a teacher to re-examine feelings and motivations caused by the change. In the following quote, Gary describes stereotypical reactions to change.

> There are those of us who embrace change like a dance, some that sort of hem and haw, and others were dragged kicking and screaming the whole way. I probably fall into that last category (laugh). It just depends.

Despite his words to the contrary, his laugh and final comment of "it just depends" give evidence that teacher reaction is not as predictable as categories suggest. Some changes, for some teachers, elicit an immediate embrace of the change. For others, the initial reaction to change is a struggle, a hem and haw that may even involve metaphorical kicking and screaming. This process of struggle involves both self-awareness and emotional complexity. The result of this struggle can either support resilience or leave a teacher vulnerable to negative outcomes.

Ambiguities can be subtle such as for Tom, who spoke at length about the importance of teachers researching new technology. However, just a few sentences later he indicated that curriculum changes could not be researched in the same manner as

technology changes. His understanding of researching change could leave him vulnerable to poor outcomes in curriculum changes. This lack of preparation for adopting new curriculum could cause him to teach from a text without comparing it to the established school curriculum. No prior study of the new text would leave him with little understanding of its strengths and weaknesses. This ambiguity is potentially detrimental because it is not seen as a problem by the participant. It is an unrealized ambiguity.

Teachers who are aware of the ambiguities of change are in a different situation. They have a struggle that provides an opportunity for evaluation and adaptation. Frequently the ambiguity involved in change derives from the difference between the current state of change and the ultimate goal of the change. When a change is in progress, when new methods or technologies are initiated, the risks of possible failure are palpable. Three interview participants talked about issues surrounding the potential for failure. For each of them the resolution of this ambiguity was to focus on the process of the change rather than the product as described by Frank in this quote.

> That's paramount to change. Understanding that change does not have to strictly be a means to an end, or a means to achieving something. But it can always be an evolving process. And growth means trying new things, and changing. And that could mean failure, you know, and that's okay.

The resilience that is created in this perspective is easy to see. A teacher focused on the process will be more attuned to problems that can be addressed and in making plans to progress. When focused on the product, the teacher evaluates only the outcome. In contrast, focusing on the process of change encourages the teacher to assess and take the opportunity to redirect the change in a positive direction.

In his interview, Frank when on to explain this process-oriented perspective by describing his grading system in physical education classes as based on personal progress

instead of comparison to peers. This system enabled his students to focus on personal improvement rather than on the difference between their current ability and the desired goal. As an example of a product-oriented perspective, if a teacher uncomfortable with using new technology continually compares his progress to other teachers who are able to meet the assigned goal of using the new technology in 25% of teaching he may become discouraged and see himself as unable to accommodate this new technology tool. However, with a process-oriented perspective he will take note of small improvements, set smaller goals to come closer to the 25% goal, and see his fellow teachers as resources instead of competition.

In an ambiguous situation, the uncertainty creates discomfort that begs to be addressed. When the focus is on process and progress, ambiguities offer an opportunity to adapt the change toward completion of the goal.

Navigating ambiguity, and turning it into resilience, involves both emotional complexity and self- awareness. Teachers must be able to traverse between evaluating a change and relying on trust in the process. Here Lana explains this idea:

> I really believe that most of the change is done for a good purpose, especially what I have seen with my administrator. I trust his decisions are based on positive reasons. Maybe I don't know the reasons, but there is something he knows and I trust that he knows what he's doing. So mostly, I just have the faith that it's made for a good reason and I really get behind it after that.

This quote is from a teacher who also talks about the need to research the background of a change. Her research into the change and her trust in her administrator and the general process support each other. When faced with a new situation that presents some level of ambiguity, it is helpful for a teacher to take positive action, but sometimes it comes down to, as it does, in this case, trust in the administrative process.

Self-awareness is essential for a teacher to navigate emotional complexity and have that navigation result in resilience. The following quote is from an interview with Ian, who related several stories of change to explain how these experiences led to professional growth.

> To say I was rough around the edges would be an understatement. I was rough and completely self-sufficient and independent. So, it took a broadening and a narrowing, in multiple ways. It was tough to do initially, but my thing is, to be a team player I saw the benefit to all of this. And so, you have to kind of subjugate those things for the success of the group. And so I was able to do that, but it wasn't easy.

While working in their classrooms, teachers need to be independent and self-sufficient. However, these characteristics can interfere with the progress of change, progress that involves teamwork. A teacher who is aware of the ambiguities of change, who can identify and struggle with ambiguity, will build resilience in the process of change. This resilience will support the change process by allowing him or her to consider what is necessary for change and what stands in the way of the progress of change. Situations of ambiguity require resilient strategies to effect successful change.

There is considerable ambiguity in the process of change. Each change promises both struggles and interest, both frustration and growth. Old methods and procedures are replaced with new ones creating an environment full of uncertainty. With the familiar, it is easy to predict what will work and unexpected results are rare and easy to accommodate. When using something new, teachers must learn to expect the unexpected, and this adds to the challenge of change.

Contingency.

Contingencies are the conditions necessary for change to take place. Contingencies include aspects of the teaching environment, as well as leadership, and

individual teacher engagement in the process of change. The following is a quote from Sarah, a technology teacher charged with the responsibility of teaching both students and staff to use the new computer platforms recently installed on all school computers.

> I wasn't asked my opinion about it. And I think that's what made it really hard to buy into it. It was just simply "Here you go, figure it out and then teach everyone," for all of the technologies that we used.

This quote gives an indication of the difficulty of teacher engagement in the change process due to a lack of contingency; in this case essential resources and support. This teacher expressed the need for training and time in her schedule to accomplish the change. She had a choice to focus on this contingency or to turn her attention to solving the problem it created.

The teaching environment contributes to resilience in many different ways. Teachers expected to integrate technology need access to technology as well as access to support. Many changes require professional development in the form of classes, webinars, or conferences that allow teachers to network. In some cases, time is the necessary factor. Both time in the sense that a change takes time to accomplish, but also time allotted in the schedule for working on what needs to be learned.

Finances are another aspect of environmental contingencies for change. Lack of finances can create a negative situation in the change process. For example, one participant, a foreign language teacher, indicated finances were behind his increase of 50% more students. This increase in workload made it difficult for him to adapt to the school's change to a block schedule system. The lack of finances can create other obstacles to change such as insufficient training or low levels of on-going support.

Alternatively, Frank shows how the opportunity for financial support provides encouragement for change:

> I am right now . . . petitioning my administration to get some iPads that I can use strictly for my class. . .So I would say the biggest change I see myself making is figuring out how to integrate technology over the next few years. I'm going to a workshop this summer.

This quote, when compared to the previous quote shows a substantial difference in the environments of two schools both prioritizing the use of technology. The second quote is from a teacher who knows his desire to use technology is supported in both equipment and training. Furthermore, the opportunity to request specific tools for use in his classroom indicates his input in this change is encouraged. His resilience comes from circumstances that support his decision to participate in the change, and his effort to seek finances through petitioning of the administration gives indication his focus is on the solution rather than the problem.

The environment encourages or discourages a change by providing a safe place for teachers to take the risks necessary when trying something unfamiliar. While it is easy to see how administrators are a part of the change environment, Tom's quote expresses the fact that the environment also includes the parents of the students.

> In our school it's the fear aspect, especially, when we've had a rollover of so many principals. The parents have really taken on a role of thinking that they can push whoever is there around. And, we don't have a principal that's really jumped in and said you are out of line. As a parent, you cannot go that far. . . I'd say the parent is more the fear than the change.

The environment described in this quote reveals vulnerability to change process failure. For change to be successful, the environment needs to provide a sense of protection as well as tools and training. This teacher's words suggest he does not see parent support as a contingency that he can create.

The idea of teacher buy-in or engagement in the teaching process was mentioned by more than three-quarters of the participants as an essential element of successful change. In the following example, Ann defined a bad change as one that produced a lack of engagement from the teacher. She connected this to unsuccessful change by way of the resulting attitude of the teacher:

> I think sometimes a bad change can . . .impede your desire to work hard. You know if you're feeling negative about something you're not going to work necessarily as hard on it. Some people would and some people wouldn't.

This quote suggests that a bad change and the resulting negative feeling cannot be overcome. A resilient response would look at a bad change and consider how it could be improved.

Several teachers connected the idea of buy-in to the importance of transparency in the decision to implement change. For Gary, this lack of transparency left him with questions that impeded his process to accept the change:

> Who made this decision? No one knows. Did it come from the school board? Did it come from the principal? Did it come from the administrative group? That kind of lack of transparency, I think, is hurtful to the institution. I think not getting a buy-in by the teachers is hurtful.

Teachers struggling with these questions may lack a shared goal or sense of meaning. In contrast, this same teacher describes an administrator from a different change situation:

> I got to work with one who was a master at getting buy-in. He could get the teachers behind something that they probably didn't like at all in the beginning. And he could get them to do things that he needed them to do what he knew they would resist if he didn't get the buy-in.

Other teachers find buy-in in understanding the "why" behind the change as seen in this quote from Lana.

> I always need a really strong background on why the change is happening
> . . . If someone asks me something I want to sound like I know what I am
> talking about. So, even if it's a policy change I like to do my research, I
> guess. Whether it's by myself, or talking to people I always feel much
> more confident if I have a very strong background.

Understanding the reason for the change supports resilience because it puts teachers in a position where they can defend the change. Being able to defend the change reduces some of the risk involved and can work to create a sense of confidence. This confidence, then, feeds into the resilience characteristic of a positive attitude. This connection between understanding the reason and the building of a positive attitude are also evident in this comment from Donna about her administrator:

> He does not like to ask teachers to change unless it's a really relevant
> important decision. And so it's easier to buy into it when he comes and
> asks me rather than tells me that we need to make a change. And I'm
> certainly not averse to change. I am all about doing what we need to do to
> make things run better. I'm okay with that. . .And when he asks and puts it
> that way I'll do whatever it takes then. And that's all, that's good. I mean
> if I can see that it's reasonable and that it needs to be done, it makes sense
> to me.

Every change has its consequences. The previous quote comes from a teacher asked to make an important technology change that had a domino effect of creating problems. This teacher had to take classes on her own time, endure what she felt was humiliation from technology assistance and develop strategies for conquering technology bugs, all in the course of daily teaching. It is easy to see that a lack of buy-in due to a lack of understanding about the reason for the change could lead to a negative attitude. This negative attitude could promote a lack of engagement in the problem-solving process inherent in adopting new technology.

Unmet contingencies for change require resilient strategies to effect successful change.

Repercussion.

Repercussions are the consequences of a change that can lead to growth that

promotes adjustment or create obstacles that might slow or stop change. Repercussions

serve the process of change if teachers can predict or prevent problems. Repercussions

are also beneficial when used to evaluate and adapt change. The following quote, Ann

recounts a repercussion that was not predicted and resulted in much grief for teachers as

the change progressed.

> It was my first year of teaching at the school. They were going to allow
> mobile devices, including cell phones in the classroom. And I think it was
> a change to be more with the times and be more technically savvy and all
> of that. But, [the administration] didn't necessarily think about how in four
> years how that would look in the school. And so, four years later it's not
> looking so good in the school and teachers are not happy about it. And so
> now, actually they are starting to talk about getting rid of that. But, again,
> nothing has been decided.

The manner in which a teacher identifies and adjusts to repercussions can be a

sign of resilience. Complaints without proposed solutions would pose a vulnerability to

change failure. Whereas, identifying the repercussions and finding growth possibilities

would promote the progression of change.

The following quote is from Donna, who felt incompetent because of her

struggles with new technology. Despite the extra hours of work and the classes she

needed to take to learn the new equipment, this teacher finds and focuses on evidence of

personal growth.

> I feel competent myself now, too. There's a lot I still need to know, but I
> feel like I can actually teach adults some things. I mean I feel really good
> when I can show someone, in my building, under the age of thirty,
> something that I've learned, a shortcut that I've learned the hard way. So, I
> feel really good about that.

The ability to turn a struggle into a growth experience is essential to the development of resilience. In the change process, growth is evidence of adapting and being able to see good in a struggle. This growth stems from a positive attitude and promotes self-regulation and problem solving. Resilience comes from identifying both the struggle and the learning. This learning is evident in the following quote from Ian reflecting on past change experiences.

> But, you know, tell yourself it's just a chance to regroup. You know, you regroup and refocus. I don't want to do that twice. That was painful - extremely. So I'll do this differently.

It is not a small thing to be able to move on from the struggle and focus on the learning. This participant uses his pain to learn rather than turning it into fear that prevents him from progressing through the change.

Beyond learning from the struggle, learning from repercussions of change can help a teacher to develop a stronger understanding of personal learning needs. This type of learning promotes resilience as it makes it more likely the individual will learn from subsequent experiences. This learning will transfer to new situations. The following quote is from Donna, who was overwhelmed by the need to learn a new technology quickly. Her struggle showed her what she needed from her teachers, in this instance her students.

> During the school day, I feel like I took it on well because the kids were really helpful. And then they would when they would want to show me something I had to finally figure out that I needed them to watch me do it. So just learning how I learn was important. I had to discover how I learned which is whether it's slow or not; I guess it doesn't matter. I had to have them watch me show them.

Knowing *how* she best learned helped her to be more efficient with the
technology staff available to help her. This knowledge put her in a better position to
continue to learn what she needed to accommodate this change.

The value of learning from repercussions is clearest when examining a situation
where the repercussion became an obstacle. In this situation, while using new technology
with his students, Tom fell victim to malware that posted child pornography on his
classroom Smartboard. He was able to remove the porn, but parents of his students called
the police. After several months of waiting, a computer forensics team exonerated him
from any wrongdoing. This unfortunate event not only resulted in the school investing a
great deal of money in a security program but also left the teacher with a fear of using
webcams in his classroom. When repercussions become stumbling blocks, the teacher is
not likely to develop the resilience that would be helpful in future change situations, at
least situations related to technology.

A third of the teachers interviewed indicated a need to try to predict all possible
repercussions of change. In this quote, Ann includes this idea when discussing her
philosophy of change.

> That it [change] has been thought through. And that the outcomes have
> been discussed and even thought of. Because sometimes change happens
> and none of the repercussions have been even thought of. . . [because
> administrators are] thinking of right now, and not thinking of the future.

Predicting possible problems can be a strong aspect of the change process.
Predicting problems may allow a teacher to prevent some problems or adapt the change
to be better suited to the needs of the student, school, and teacher. Feeling the need to
predict every possible problem could also leave a teacher vulnerable to change failure as

it may slow the change process or contribute to a teacher taking on blame rather than learning from an experience.

In the following quote, Ian related a story of a time when he stepped in as a temporary administrator. The result was a burdensome increase in his workload and a roomful of unhappy parents who felt their children were not getting enough attention from their teacher.

> You know, they were angry. And they weren't mad at me per se, they were just mad that it happened. . . I didn't really understand how important it is to have closure when you're going to have change. . . Hindsight, of course, we all have that being 20/20, [it was] not really what I should have done. I should have told them "no" and had them find someone else. But you just do what you think is right at the time.

There is a subtle difference between identifying mistakes for learning and taking on blame. Learning from mistakes creates resilience because it gives a teacher new skills, new information, for future situations. Blame creates vulnerability because it comes with little learning, and it may lead to a repetition of the same mistakes.

Some repercussions of change are so dire as to become untenable. Frank described a situation where the church administration decided to dismiss the principal because of philosophical differences. This event took place less than a month before the beginning of the school year and, as the principal was well liked, had a demoralizing effect on the staff. Also, the church decided to compensate for the loss of a principal by sending volunteers into the classrooms to assist the teachers. The teachers felt as if their classrooms had been invaded. This invasion, when added to the unsettling news of losing a principal, created a problematic situation.

> I got much more tentative. I didn't feel as free to try new things. I was somewhat reserved in what I was doing, because you know if they're going to fire somebody else, that was unsettling to me. I didn't feel safe

and supported to maybe try some of the things I wanted to. . .In some
ways I think it wise to say I grieved a little bit, you know. . . And, so I
persevered and battled three-quarters of the year, but when the other
opportunity came up, [to leave] it made it real easy to take it.

In this situation, the teacher felt the best decision was to leave teaching. He later

returned to teaching at a different school. If he had stayed in this situation, this

experience might have caused vulnerability. He might have developed a fear of trying

new things, a fear of possible failure, criticism, and perhaps the loss of his job. The

learning he gleaned from this repercussion helped him to place blame where blame was

due instead of taking on the vulnerability that can accompany blame.

The ultimate growth from repercussion is one that shapes a teacher's view of

change and his or her place in the process.

You never know what opportunities it's [change] going to provide for you.
. .You can see it as an opportunity to grow professionally. . .You can be an
active participant, in the process and maybe help shape the change. I think
that's fair to say, and that's a valuable perspective to have, in my opinion.

This quote gives evidence of how Frank uses the struggles inherent to change to

grow professionally. He faces challenges with enough resilience to see himself as one of

the agents of change. A teacher who takes ownership of the change is more likely to be

successful in the change. Repercussions of change challenge a teacher to find and use

resilient strategies to effect successful change.

In ambiguity, contingency, and repercussion each presents the possibility of

acting as either an obstacle or a promoter of healthy change. In each situation, teachers

have the opportunity to evaluate change and make choices that can improve the change as

well as promote the process. The development of resilience will not only make successful

change more likely, but it will work to prevent unhealthy change.

Support.

Support represents aspects of a change situation that lend assistance to the individual working through change. Support in school settings comes from relationships with both administration and peers. The following quote is from Sarah, who was assertive about the support she needed to help her fellow teachers accomplish change. Here she also demonstrates empathy regarding the needs of her fellow teachers.

> I think the full nature of understanding technology itself that people don't get it by osmosis; they have to have some training. Because of the lack of professional development time, I've started creating tutorials and videos for the teachers because it just seems to be, somehow or another, I know they need to have that information in their hands, and so I'm kind a set out to do that.

Teachers with support - those who can count on help when needed, those who know the administration will defend them, those who have built supportive relationships - will also develop resilience in dealing with the challenges of change. A supportive environment is an element of this type of resilience. Teachers will be vulnerable if they live and work in fear of trying new things. A culture with experimentation will support a teacher learning new skills and working to adapt to change.

> The administration's been wonderful in this way, and I really appreciated it. They just sort of have said, "Okay as long as your students are learning Spanish, you can do what you want." And, you don't find that often. In public schools you never find it.

Regarding support, there is much behind this comment. Gary knows he is accountable for good teaching; he knows his administration trusts him, and he knows that he is encouraged to try new things with the goal of improving his teaching. This recognition of trust and encouragement worked to build resilience for this teacher as he struggled with the effects of a significant change in scheduling.

Schools encourage teacher resilience by providing resources that give a message of support for change. Here, Renee describes the difference between her previous school and her current school.

> Comparatively, between [previous school] and [current school] there are many more opportunities to incorporate technology into my teaching because they have an iPad cart, they have MacBook cart; they have Smartboards, things like that.

The presence of these technology tools and the ease of access suggested an environment that encouraged teachers to change their teaching methods to include more technology.

Teachers often require training specific to the change. New technology requires classes; a new curriculum requires training, and even new policies can require practice. An atmosphere that is conducive to continuing education is a factor in building resilience.

> My administration is very supportive of me in doing that [independent learning]. I'm able to attend the state PE teacher's conference every year. This is a specialist [conference], most of [teachers] from public schools. That's a huge boost for me; just encouragement that I'm doing some of the right things. It always teaches me some new tricks, some new wrinkles to add to what I'm doing.

Frank works in an environment that encourages change. As a specialist (a teacher who teaches one subject such as art, music, or physical education) his administration recognizes that he needs specific professional development that encourages him to evaluate continually and improve his teaching. Such an environment would have necessary supports in place to encourage a teacher to adapt to a particular change.

Teachers also benefit from an open-door policy on the part of the administration. It is helpful when the administration recognizes and accommodates the fact that change is an on-going process that requires attention and assistance. Donna admitted to struggling

with a technology change at her school but praised the help she received from the

administration.

> We have a really good assistant principal. She's very tech savvy. Always
> willing to help on Friday nights if I would go up to her and say I don't get
> this. She was my go-to person, more so than our IT people.

An administration that creates a climate conducive to experimenting, professional

development, and assistance is providing necessary community resources to build

resilience in change. The list of community resources is not limited to what the

administration supplies. Colleagues also provide the assistance and support that

encourages change.

Teachers who seek support, build social networks, and create support systems are

arming themselves with a resilience that will assist them in accomplishing change. Here

is Sarah, a specialist charged with teaching computer skills to both students and fellow

teachers. She finds she must set up her support network.

> I think what's hard is that when you are a technology teacher in a school,
> you're it. You are pretty much alone. So, you are only as good as support
> staff around you and most schools do not have a really good support staff.
> I was really fortunate in that in the last few years [that] I had a gentleman
> in our IT [department] that really helped, um helped me out to where I
> wasn't all by myself. And then from there I have done more networking,
> and so, have found more groups that um I have been able to be a part of.

The support of colleagues provides expertise and as well as emotional support. In

this quote, we see Renee's appreciation for good advice as well as the relationship

support that is conducive to a positive attitude.

> Really seeking out other colleagues and teachers, like what has worked for
> you with these kids? What has not worked for you? And, just doing
> research in general to find good strategies and fun activities for me to
> implement into my classroom . . . I feel like being able to develop some
> relationships and getting to know the staff and teachers before I even
> started the school year was really big for me. They really made an impact

on how I was coming into the school year. Already having some relationships established and having those support systems, that was really helpful and beneficial to me.

The following quote was in response to a question about how Ann reacted changing to a split teaching position teaching at two different schools. Her response shows how the supportive relationships with fellow teachers assisted her in solving problems.

I think the biggest thing was that I didn't talk myself through it. I talked to other people. I think it's important to get perspective of your colleagues. Especially people who are masters of that trade to talk to, to go right to them to get that support from them and learn that way.

Supportive relationships with peers also offer an answer to the anxiety that can accompany change. The frustration of a crashed computer program or a failed discipline technique is ameliorated by the knowledge that other teachers are trying the same change and may have solutions to temporary problems. Sarah teaches technology to peers. This quote shows her understanding of the value of supportive relationships.

I think that the fear is not knowing it or understanding it and being alone when something goes wrong, you know. Because technology does tend to go down and go wrong. So just knowing that they have some support and knowing that someone has their back when they are trying out something, really helps them out quite a bit.

The value of strong supportive relationships is also seen in this quote. Here Ian realized a fellow teacher was at her frustration limit in regards to an important curriculum philosophy change. He provided support as follows.

I'd give her about ten minutes and then walk into her classroom . . . and then of course she'd begin to vent. . . And there was no way she could have that conversation with the principal. She couldn't have it with our associate administrator and there was no way she could have it with our first-grade teacher, who is leading the whole thing. And so, it was really about helping her understand what's going on and why.

Conversations such as the previous quote offer a teacher the opportunity to release some frustration and anxiety and to re-evaluate the situation with problem-solving possibilities, whereas, the following response offers only condemnation and little hope of problem-solving. This interaction promotes vulnerability as it increases frustration and anxiety.

> And I remember our first grade teacher just, she says "I have told your repeatedly, whole language does not mean no phonics! If phonics is not being taught in your whole language class that is because you are not teaching it."

Seeking support from peers is not always a resilience building strategy. The opposite is true when a teacher seeks help in the effort to create sides as in – us vs. them. The following quote, from Tom, exemplifies the seeking of peer support for the purpose of co-rumination.

> Oh, right away when I read it and found out it was going to be put into the next year's handbook I knew right away. I went down to the eighth-grade teacher's classroom, and I told her, I said "Did you see this, what the school board voted on?" And, what they passed in an administrative session, too, not even an open session! So, they knew how touchy it would be that they did it behind closed doors without any teacher input. Or, that they felt they had to. Right away we were concerned just on how the management of it was going to be. And, how a lot of the school board members see this.

Again, this example is an interaction that does not promote problem-solving. Instead, it promotes frustration and anxiety. Additionally, the background agenda of us vs. them reduces the opportunity for a positive relationship between administration and teaching staff.

Change situations call for many different kinds of support to build resilience.

Strategy.

Strategies are techniques used by teachers to cope with challenges associated with change. These challenges can be external, involving the circumstances of the change, or internal, involving a personal reaction to change. Here Gary explains how his behavioral reaction to change relates to his emotional reaction.

> Like I said, if I really believe in what the change is, I'm all for it. There's no dragging and kicking and screaming. I just dive in . . . If I'm not sure of it I kind of [change it is] it's like wading into the swimming pool as opposed to jumping in. And then if I don't see the value in it I kick and scream and fight.

The initial behavioral reaction, or the way a teacher copes with initial emotions, can help to create resilience or vulnerability regarding the progression of change. "Jumping in" moves change forward while "kicking and screaming" detract from the progress of change. Some reactions to change are protective in nature. Perceived danger may cause a teacher to "circle the wagons" as in this quote from Frank describing a situation in which his principal was fired.

> My initial reaction was I was very upset, you know. I had an administrator who had hired me, who liked me, who supported me, he was very much an encouragement and a mentor to me as a young teacher and that was taken from me. That was very unsettling . . . How I handled it was just . . . I don't know if I want to say I kind of, clammed up, and shelled up. . .And you just kind of circle the wagons and you do what you have to do to get by because you don't feel safe.

The change of principal left this teacher with questions that kept him from a sufficient understanding of the reason for the change. This lack of understanding kept him from being able to predict future decisions that might affect him. This negative change, the way it was handled, and the teacher's response to "circle the wagons" leaves a vulnerability that puts future change at risk of failure.

Frustration is another emotional reaction that can detract from the progress of change. Teachers must find a way to deal with frustration, or the learning process will abate. Donna concludes that venting frustration at home worked best for her.

> I probably didn't handle it very well after hours. After the school day was over, when I had to go home and work, it wasn't quick work because I had to battle through some of the technical issues and difficulties. And so, according to my husband it probably wasn't handled very well because I was mad a lot in the evenings trying to figure out why can't I open this, why won't this attach, why can't this copy and paste, just getting really frustrated.

Other emotional responses that lead to a slower progression of change include dismissal of the problem or avoidance of the change. In the following quote, Ian reflected on his reaction to change as a young teacher.

> So, what happens is there was a whole structural shift. And so it took a while to get into that. Because you know, things would be brought to my attention and I would simply dismiss them. Simply because they didn't apply or if they applied to me I simply didn't want to do them so I just didn't.

In relating this story, Ian compared his reaction to that of fellow teacher's reluctance to explore computers.

> And she was at the screen that she had not seen and it shifted or whatever and she did not want to touch it. Because she was sure that if she touched it, it was all going to go away or blow up or eat her or something. . .I told her you can't break this. It's okay. . .so I walked over and hit the escape button and so the whole thing went blank and she panicked, actually for me.

The avoidance reaction to computers displayed by this teacher was so strong that she transferred her fear to the teacher helping her. This lack of resilience in the ability to self-regulate her fear leaves this teacher vulnerable to failure in the change process.

Fighting a change, seeking protection from change, dismissing the need for change, or avoiding the tools of change are all reactions that slow the progress of change and thereby create a vulnerability to change failure.

Other reactions to change have the opposite effect. Reacting to a challenging change with adaptation, planning, communication, and self-reflection are methods that encourage the progress of change. The following quote is from Gary and illustrates his struggle with his reaction to what he described as an unhealthy change.

> On the other side of it, it's kind of back-breaking and has required of me to cut way back. I just do the minimum I used to do. . . I had to cut back and I had to look for new ways to compensate for that. I think I've done pretty well. But, still, at the same time, it's back breaking work.

Creating a plan and organizing work time were popular coping strategies as two-thirds of the respondents mentioned them. Some talked about the need to organize to handle the increased workload. Others reacted to the news of change by making a plan on how to cope. These reactions lead to resilience in change as they begin the problem-solving process. Each problem solved moves a teacher closer to achieving change. As an example, the Sarah bore the brunt of the work in making a successful technology change. A change made without requesting any input on her part.

> Part of creating a plan for adapting to a change is realizing and communicating needs. I think just by communicating and saying, you know what, this is my skill set, but it's not going to get any higher unless I can get in with other people who are doing what I am doing. So, from there I was allowed to go to some conferences and create some social networks for myself, and I think that's where I really gained a lot to go up to the next level. Because you know, when you are teaching yourself there is just so far that you can go. And time was put into my schedule, eventually, where I had more time to learn things and discover some things.

Instead of avoiding this change, or simply surviving it, this teacher realized she needed professional development, a support network, and time in her schedule. While she lamented that it would have been best if this determination had taken place ahead of the change, she demonstrates self-regulation and problem-solving skills by requesting the community resources she needed.

This sort of self-regulation and problem solving begins with self-reflection. A teacher focused on the fear of change or focused on complaining about the change will find difficulty progressing in the change. The following quote is from Ian, who moved from a school in a dangerous urban neighborhood to one in a rural area. Self-reflection helped him to realize how he needed to change.

> Because [at previous school] diplomacy was seen as a weakness, and everybody has an angle and you gotta address this. [At the new school] diplomacy and explaining things and getting people to understand and how to try to tie it all together is necessary.

This kind of internal assessment is a significant step toward self-regulation and resilience. Self-reflection is a part of identifying what the teacher has learned. Identifying learning is the first step toward the use of that learning in future change situations.

Several of the stories relating change focused on the struggle of change without mentioning strategies for coping with the struggle. This type of response was found in almost a quarter of participants. Without strategies for coping or adapting to change, the initial emotional response remains the primary driver of behavior. Vulnerability to the failure of change driving behavior is evident in Tom's negative experience with computer problems.

> So, the webcam was taken from me. So, I don't do that anymore – out of fear of even having that in my room. . .So I just hope, I seriously hope I finally get over that fear of having that webcam in my classroom.

It is hard to imagine Tom getting over his fear simply because of his hope. Strong coping strategies are essential to the development of resilience in the change process. The result is to avoid aversion to risk as described by Ian.

> [When] you are little and someone puts a caterpillar in your hand, you know, it's great. You know, it doesn't matter what it is. Well, the first time someone puts something similar to that in your hand and it bites you, see now, now you're risk averse. Now, you know, you're not going to be quite as quick to put that hand out there. And I think sometimes we all have what has happened to us in the past tends to taint how we approach things in the future.

Positive strategies for coping with negative emotions build resilience by changing attitudes toward change. The teacher needs to regulate the emotional response so that attention can turn toward finding solutions. Here is a quote from Tom who is learning to regulate his initial response to change.

> Really get in the mindset of why was this change made? Don't jump out right away and say you're against that change. Find out, number one, what the change is, because sometimes people can say well here's the change, and when you really get down to it you realize it wasn't much of a change in the first place.

Over nearly two-thirds of respondents reported seeking help during the process of change. Some sought out the help of experts both within and without their community. Others sought out help from peers. In the following quote, Sarah shows this pro-resilience coping strategy for frustration as she explains the importance of seeking supportive relationships.

> I think, when you are first presented with a challenge, for me, the way I roll is, I kind of try to do it myself, and I think when you get frustrated, you think there's gotta be a better way, another way, and that's when you start seeking more help.

The creation of resilience in the change process is also seen when teachers respond to frustration by looking for, and finding the good in the situation. The following

quote shows how Gary's adaptations made to accommodate a large increase in student load led to unintended positive consequences. His ability to see challenges as problems to be solved instead of as problems that create fear and frustration left him open to the benefits of a book suggested by a friend that introduced him to the work of Dweck (2008).

> It's given me a frame of reference in a language that I can use with children that helps make it very easy to talk to them, especially when they're not doing their work and not doing the part of what they need to do. So there has been a quite a bit advantage to this. Finding her [Dweck] material was wonderful for me. I found it personally freeing.

Even expressing a "wait-and-see" attitude toward change can assist a teacher in self-regulation of fear, anxiety that often accompanies change. Donna, for example, had many misgivings regarding a change for which her school was preparing.

> I think tentative would be a good word. Willing to see how it all rolls. Having some questions . . . I have concerns but, by the same token, I know that there are a lot of positives.

Despite her reservations, Sarah was already looking for the positive aspects of the change. In this incident, her concerns have the potential to turn into questions that could help shape the change instead of feared repercussions that slow down the process of change.

In another example, Ian exhibits a wait-and-see attitude regarding electronic textbooks. Shortly after telling how he insists his students use dictionaries and encyclopedias as a supplement to their computers, he reflected on how much computer use already occurs in his teaching.

> We'll be working, I'll be, it's google, using Gmail, google drive, google docs, all that will be back and forth with my kids on their projects, or asking questions that way. Our grades are all online, we use Fastdirect now, I mean that's just really going to be the way that it goes and that's

> fine. I see that and look forward to it . . . It'll be weird when I get to the
> point when I realize I've got no textbooks in my classroom.

Ian's practice of insisting on the use of reference books may indicate he is not ready to jump into an all-electronic classroom with both feet. However, he recognizes the possibility, and his recognition of its inevitability does not conjure up expressions of fear or distrust.

Taking action to alleviate stress is a helpful beginning to self-regulation. Other strategies to cope with change can bring about growth. All of the participants discussed the value to the change process of continued education and research. In the following quote, we see taking classes as one in a list of coping strategies. Even in admitting that the experience is difficult, Donna indicates taking classes is a typical part of her plan for coping with the emotional reactions to change.

> I take classes. I mull about it, and I complain at home, and I lean
> on my coworkers, and I pray a lot and I just battle through.
> Sometimes I don't like it at all. And, sometimes I have to keep that
> to myself and other times I can be very verbal about it.

Strategies for coping with change can work to build either resilience or vulnerability in terms of the success of change. The development and practice of resilience-based strategies build a list of healthy resources for the teacher facing change.

Faith.

Because this study focuses on teachers in Lutheran elementary schools, participants were asked how their religion affected their view of change. While there are no statistics that indicate how many teachers in the Lutheran Church/Missouri Synod school system are members of the Lutheran church, it is known that out of 21, 256 teachers only 1,165 are non-candidate status (LCMS, 2014). A non-candidate is a teacher

without requisite religious training. While some of those in non-candidate status *might* be members of the Lutheran church, *all* of those with candidate status, by definition, must be members. Church membership and the presence of faith are important components of Lutheran schools.

News reporting of religion-related incidents in the United States in the wake of the Supreme Court decision on the Obergefell vs. Hodges case, effectively legalizing same-sex marriage, give rise to the concern that religious beliefs create obstacles to change for the individuals who hold those beliefs. It is a worthy examination to look at the impact of religion on an individual teacher's reaction to change.

This category includes the aspects of individual teacher's faith that affect the change process. Among other things, this study indicates faith can offer emotional support and give a shared sense of meaning or purpose as evident in this quote from Renee.

> No matter what I was feeling – excited, nerves - Is this the right idea? Is this what I should be doing? – knowing that God was in charge, and that was what I needed. . . God never promises that it's going to be easy. . There will be problems. We will have obstacles. However, God promises that he will never leave us.

One teacher used faith as an example when talking about decisions regarding change. When talking about knowing the plan and purpose of a change, Ian made mention of the Bible story of creation. He also cited Jesus as an example of leadership in the arena of change.

> And really what happens [when] change gets shuttled along then everybody ends up frustrated. And really what happens is change gets shuttled. Change loses in that. It's not the old stuff that loses, it's change. It's the advance or the change that loses. And that, that seems to be not where we want to be. Because if Jesus was anything, he was an agent of change. And so, yeah, yeah, that's revolutionary stuff right there.

A larger number of participants, nearly half, spoke of the emotional support they derived from their faith. They sought guidance through prayer and took comfort from the strength they felt their faith gave them. In these instances, as is seen in the following quote from Donna, faith is a part of growth.

> I think change can be related to growth. And I think it should be a prayerful endeavor. I think it needs to be an effort where you're asking God to just give you the strength, even when you're tired to just battle through. So, I pray a lot, pray a lot about change and things that, that need to be done for growth. Because to me change is a part of just growing.

Two participants gave evidence of religious issues being an obstacle to change. Tom related a story of a congregational meeting with the agenda of appointing a new female principal. While the Lutheran Church-Missouri Synod does not discourage the hiring of women principals, this is an issue of some contention for more conservative congregations.

> But when you have a change and you think you are on one side of the change and you are for it, and you're ready for it and you're getting prepared for it and then all of a sudden somebody says "Is this truly a part of our belief? Can this happen?" . . .And, it made me really sit down and be like, gosh that is in the Bible and, and, I struggle with it now.

Frank indicated a different kind of interference from religion. He spoke of the positives and negatives of teaching and working in the same place where one worships. In his particular change event, the church had created a change that left the teachers feeling insecure.

> It can be such a powerful tool to have a church and a school working together, but at the same time, when they are not working together and not communicating that makes it hard. And I think that another thing that kind of arose from this is about halfway through that school year I actually went to the board of education and said, I'm sorry, but we cannot worship here anymore.

In this incident, the change (sudden loss of a beloved principal) created a conflict that interfered with the Frank's ability to accommodate the change. This conflict grew to the point where the teacher could no longer worship at his church. He eventually not only left the church but also left teaching as a profession, returning to teaching several years later at a different school.

Regarding the development of resilience that allows for the progression of change, the best examples speak to the shared sense of meaning or purpose. More than half of the participants indicated their common faith reminded them of their shared purpose and worked to help them deal with the struggles inherent to change. Frank sums up the interaction of faith and a shared sense of meaning in this way.

> My first and foremost responsibility is to share God's love with other people. And that's with students, and that's with parents, and that's with co-workers. And I think that being assertive, and staying current on what my practice is, I think that changing what you teach based on current research and that's understood too, would be in the best interest of the students and dealing with their families. I think those are all kind of indicators of being good stewards of the gifts that God has given us. And, I think those are [a] kind of a form of witness and they show our students and their families that that we care about them and we want to give them the best that we can.

While religion issues can be an obstacle to change, as can conflict between the church and school. The data from this study support the emotional benefits of faith. Faith is seen as a source of support in the process of change. Furthermore, the contribution of faith to the community's shared sense of meaning also works as a protective factor in resilience.

Summary

Teachers in this study demonstrated many reactions that promote resilience over vulnerability in change situations. These reactions helped them to

reconcile ambiguous situations that in turn kept a positive perspective on the change. Resilient reactions also helped teachers to deal with repercussions of change and to move toward addressing contingencies for change. Finally, resilient reactions assisted teachers in finding adaptive support and strategies for overcoming the struggles and obstacles inherent in change situations.

CHAPTER 5

DISCUSSION

The purpose of this grounded theory study was to explore teacher reaction to change in the Lutheran elementary school setting. The findings of this study reveal that, among the reactions to change found, some promoted resiliency in dealing with the challenges of change that, in turn, promoted successful change. The emergent theory, the Resilience Model of Teacher Change, describes how the protective factors of resilience promote the development of healthy approaches for accommodating ambiguity, contingency, and repercussion. These healthy approaches are seen the use of support, strategies, and faith.

The related literature, as outlined in this chapter, further contributes to the description of the Resilience Model of Teacher Change regarding four critical areas: affect, social, framing, and tactics for accommodating change. As seen in the illustration below, the literature on affect relates strongly to the first three protective factors of resilience: positive attitude, self-regulation, and problem-solving. The last three protective factors of resilience, supportive relationships, sense of meaning, and community resources, connect with the literature on social relationships. Research understanding of framing situations applies to ambiguity, contingency, and repercussion, while studies that focus on tactics for accommodating change relate to supportive, strategies, and faith.
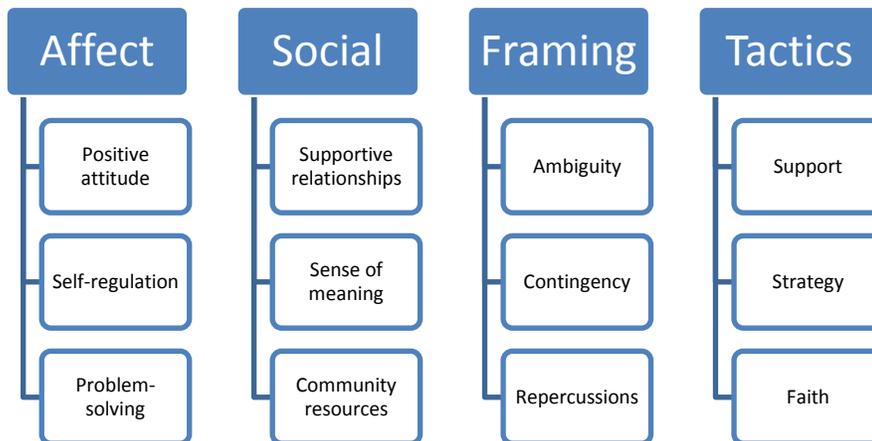
Affect	Social	Framing	Tactics
Positive attitude	Supportive relationships	Ambiguity	Support
Self-regulation	Sense of meaning	Contingency	Strategy
Problem-solving	Community resources	Repercussions	Faith

Figure 5.1 *Visual diagram of literature connections to The Resilience Model of Teacher Change*

Affect

The emotional affect of a teacher critically influences reaction in a change situation. Emotional state and expression influence attitude and self-regulation as well as the ability to solve problems. Whereas a positive attitude will not cause change it does create resilience by making change more likely to happen. A positive attitude will shift goals from self-protection to attending to the needs of the situation. In this way, a positive attitude becomes a psychological resource. A positive attitude encourages a positive assessment of a situation that will encourage a positive attitude in others (Carver & Scheier, 2011). A positive attitude acts as a counteractive optimism when an optimistic prediction elicits greater motivation for the task at hand (Fishbach & Converse, 2011).

While a negative attitude focuses on the problem leaving little room for the consideration of a solution, a positive attitude facilitates approach behavior that sets up a suitable environment for overcoming obstacles (Smith, Ortiz, Wiggins, Bernard, & Dalen, 2012).

Affect is essential to the goal of self-regulation. Positive attitudes participate in regulations by guiding action and assessment of a situation. A positive attitude will find potential over problems. A positive attitude also regulates by supporting social action. The sharing of a positive attitude will process information from the environment in a way that maintains a shared view of the situation (Ledgerwood & Trope, 2011).

Affect influences the ability of an individual to solve problems when positive attitude stems from an accurate assessment of an individual's control over a situation. This perspective can encourage a teacher to find ways to overcome barriers to change (Bruce & Ross, 2008; Pierce & Ball, 2009; Rotter, 1966). Positive affect can broaden attention that facilitates problem-solving (Ong, Bergeman, & Chow, 2010; Smith, Ortiz, Wiggins, Bernard, & Dalen, 2012).

Social

The Resilience Model for Teacher Change goes beyond personal affect to include social interaction. Social relationships and resources contribute in crucial ways to the resilience of a teacher in a change situation. The cultivation of supportive relationships, a strong shared sense of meaning, and robust community resources does much to promote successful change.

Coan and Maresh (2014) explain the importance of supportive relationships through the viewpoint of social baseline theory. Social baseline theory is the observation of links between social relationships, health and well-being. The social baseline theory seeks to explain how individuals use each other as resources. In this theory, social relationships offer material, appraisal, and emotional support. Social relationships can provide feedback and training, help problems to appear less intense, and help with self-

esteem repair. These authors also posit that shared goals and responsibilities will lower the emotional costs of coping with stress.

Tangible support from social relationships is evident in the sense of cohesion developed when working through problems happens as a community process. A sense of cohesion results in mutual trust. This trust is essential in supportive relationships as it allows for the benefits of the relationship to influence the change process (Halgeson & Lopez, 2010). This community process also supports goal achievement as teachers on a faculty can encourage, evaluate, and offer support to one another leading to a self-esteem building realization of acceptance (Finkel & Fitzsimons, 2011; Leary & Guadagno, 2011).

Supportive relationships also offer support in the interactive nature of group appraisal. One teacher's anxiety over challenges can be countered by another teacher's enthusiasm for the opportunity for growth (Blair & Ursache, 2011). This counteraction works to reduce threat and facilitates growth by exposing teachers to others who are practicing successful emotional regulation in the attainment of goals (Finkel & Fitzsimons, 2011). Supportive relationships, being by their nature cooperative rather than competitive promote the value of feedback as the evaluation of others is seen in a more positive light (Leary & Gohar, 2014).

In a community setting, such as a school, one of the essential benefits of supportive relationships in the Resilience Model of Teacher Change is a strong shared sense of meaning. The sharing of new experiences can create a shared sense of meaning (McCullough & Carter, 2011), and the shared values that support a sense of meaning will in turn contribute to interconnectedness (Pargament & Cummings, 2010). Resilience is

found in the process of working toward a common goal. This resilience is strengthened

when those who are working toward that common goal also hold common values (Hall &

Zautra, 2010; Pargament & Cummings, 2010).

The primary benefits of a shared sense of meaning in promoting resilience have to

do with goal commitment, shifting of priorities, and refocus of a disparate group

(Gollwitzer & Oettingen, 2011; Halgeson & Lopez, 2010). A faculty that shares a goal

for change will be able to influence positively each other to focus on proximal goals, on

learning, and on the evaluation of progress. In the process of change, each teacher on a

faculty will experience unique challenges. Maintaining a shared sense of meaning that

promotes a positive framing of problems and focuses on mutual goals is imperative to

building resilience.

The influence of social relationships to resilience is evident in aspects of

community resources. Faculties that have the opportunity to dialog about change will

help teachers to see supportive relationships as a resource (Fitzsimons & Finkel, 2011;

Leary & Guadagno, 2011). Discussion of change promotes goal achievement and the

building of trust as individual teachers begin to see the benefits of acceptance and support

(Halgeson & Lopez, 2010). An additional factor of community support is seen in risk

distribution. Dialog and mutual support build teams which increase individual resilience

(Coan & Maresh, 2014). In a cohesive, supportive community, the risk of failure does not

rest with one individual. The discussion of consequences of risks taken during the process

of change can refocus perspective toward learning rather than blaming.

Additionally, it is important for the community to provide the resources necessary

for successful change. The social environment can support change by allowing for

adequate time to learn, practice, and evaluate change (Denhardt & Denhart, 2010).

Furthermore, if a community engaged in change does not take time to evaluate the

process of change they create a risk of change failure that will impact future change

(Rogers, 2003)

Framing

The manner in which a teacher frames or assesses a proposed change (and its

challenges) contributes in compelling ways to the ultimate success of the change.

Particular framing approaches can support resilience and are vital aspects of the

Resilience Model of Teacher Change.

The process of change creates ambiguous situations. Old practices no longer work

in the same predictable way. New responses and evaluations are required, which leave

teachers with questions regarding contingent needs as well as possible repercussions. The

belief that one has control over personal behavior as well as circumstances can improve

motivation to see obstacles as solvable challenges, to change actions toward effective

change, and to motivate a teacher to tackle situations with planning (Papies & Aarts,

2011).

Scholer and Higgins (2011) describe two possible orientations that can influence

how an individual might frame a change situation. A teacher with a promotion orientation

has a goal of positive outcomes which spurs growth and accomplishment. Individuals

with a prevention orientation have a goal of avoiding negative outcomes which creates a

focus on security and responsibility. Both orientation types can change, but will view the

situation from different perspectives. An individual with a promotion orientation will see

the change as working toward an ideal or improvement of skills. An individual with a

prevention orientation will see the change as relating to his or her duty to maintain good

teaching and learning in the classroom. Each orientation has its strengths and weaknesses. Teachers with a promotion orientation will be more motivated to take on the challenges of change, but those with a prevention orientation might set goals and maintain change more effectively because of their desire to prevent failure (Scholer & Higgins, 2011).

Positive strategies for accommodating ambiguity regarding the success of change can work to meet the needs of both those who eagerly seek change and those who focus on preventing problems during change. Repeated failures that are left unaddressed will move a teacher with a prevention orientation toward opposition to current or future change (Rogers, 2003). Similarly, when a change fails to make progress, this will negatively influence those with a promotion orientation (Scholer & Higgins, 2011).

The framing of a challenge in a resilient manner is supported when the school community holds a shared value of learning from mistakes. Change requires teachers to take risks, and this can negatively impact self-esteem (Leary & Guadagno, 2011). When the administration and other faculty members work from the idea that a mistake is not indicative of failure but rather is potential for learning, then risk-taking can improve self-esteem (Button & Zajac, 1996; Leary & Guadagno, 2011).

A shared value of learning from mistakes is realized in the development of a learning orientation (Dweck & Leggett, 1988). The view that mistakes, although uncomfortable, can result in growth encourages a positive framing of a challenging situation. Each problem becomes potential for learning rather than potential for failure (Dweck, 2008). This mindset encourages teachers to focus on proximal goals that afford quick and frequent feedback (Cervone, Mor, Orom, Shadel, & Scott, 2011). If a teacher is focused on the distal goal of the accomplishment of the change, the discrepancy between

current practice and ideal practice can lead to negative feelings regarding self-efficacy and the change itself (Leary & Gohar, 2014). The action of attending to proximal goals will promote the importance of process over product. It is not that the final product is unimportant, but rather that the focus on the process, small goals and learning from mistakes will maintain motivation to achieve the change (Dweck, 2000). When a change situation is framed in terms of possible failure, success is less likely than when the framing is one of small successes in problem-solving that will result in the achievement of successful change.

Regarding accommodating contingencies and repercussions, framing can represent a cognitive change resulting from a positive appraisal of the situation (Koiole, Van Dillen, & Sheppes, 2011). When contingencies such as training or parent support are viewed as insurmountable obstacles, success in change is less likely. However, when these contingencies become a list of steps that can be taken to accomplish the goal of change, then the individual teacher is somewhat shielded from the disruption of change. The plan for change works to reduce the anxiety surrounding the change (Gollwitzer & Oettingen, 2011).

Addressing the repercussions of change is another opportunity to make use of positive framing. This is a situation where the difference between the obstacle and the solvable problem can make a crucial difference in the success of the change. Predicting problems will increase anxiety. Making a plan to deal with problems will reduce anxiety (Gollwitzer & Oettingen, 2011). Predicting problems can set the stage for successful change by reducing the likelihood that unexpected problems will cause discouragement. However, too much focus on predicting problems can be a problem as it can exaggerate

threat and slow progress toward change. It is essential to find a balance between

predicting and preventing all problems and predicting enough problems to reduce anxiety

(Leary & Gohar, 2014). The promotion of a process view that recognizes the learning

potential in problems will work to keep a positive framing of a change situation (Dweck,

2008).

The manner in which a change situation is framed is not only connected to the

teacher's appraisal of the situation, but also to his or her perception of personal control.

The perception of a lack of control over a situation, stemming from the conviction that

the individual can do little to make change happen, will increase anxiety (Bugental,

Cortez, & Blue, 1992). Teachers who include their ability to make changes and to solve

problems in their framing of a change situation will be more motivated to achieve that

change. This type of positive attribution can and should be encouraged in teachers (Leary

& Gohar, 2014). In addition, it is important for teachers to have an accurate

understanding of what they can and cannot control as a method of reducing stress

(Jacobs-Lawson & Waddell, 2011). Some circumstances resulting from change cannot be

solved but must be accepted. When a teacher continues to control the uncontrollable then

energy is wasted, anxiety is increased, and the individual becomes vulnerable to change

failure (Holt, Clark, Kreuter, & Rubio, 2003).

Tactics

The Resilience Model of Teacher Change includes numerous tactics supportive of

the change process. Some tactics are for teachers to promote successful change and others

are for the administration to use in creating a supportive change environment. A teacher's

initial reaction to change and its challenges has been termed a primary reaction while the

way a teacher chooses to cope with the stress of change is termed a secondary reaction (Koiole, Van Dillen, & Sheppes, 2011). While teachers may be limited regarding what changes can be made in primary reactions, there are many tactics for making positive changes in secondary reactions. Resilience to change is built when both individual teachers and administrations pay attention to tactics that promote self-regulation.

Self-regulation is a process that is both internal and self-corrective (Carver & Scheier, 2011). Strong self-regulation skills can increase flexibility and adaptability (Rothbart, 2011). Tactics that use or promote self-regulation also promote learning and goal achievement. They are important aspects of resilience.

Effortful control is the ability to shift attention willfully (Eisenberg, Hofer, Sulik, & Spinrad, 2014). Good attention control means an individual is able to refocus attention away from threat, thus reducing anxiety (Mischel & Ayduk, 2011). When attention is shifted away from anxiety, it can be shifted toward emotions that promote a positive affect. This action of reappraisal promotes a broader attention for problem-solving (Proudfit, Dunning, Foti, & Weinberg, 2014) and encouraging a more accurate assessment of the situation (Leary & Guadagno, 2011). Even the act of planning involved in problem- solving is a strategy for dealing with stress as shifting attention to the plan reduces anxiety (Feder, Nestler, Westphal, & Charney, 2010).

Effortful control is increased in the process of self-reflection. Self-reflection assists in the management of emotions by encouraging an individual to move from reaction to coping. When positive attitudes are promoted in the process of self-reflection then the negative consequences of rumination are lessened (Joormann & Siemer, 2014).

Self-reflection encourages an individual to learn from mistakes and to assess more accurately challenges (Leary & Gohar, 2014).

Self-reflection and effortful control can be used to promote a positive attitude regarding the challenges of a change situation. In this process, thinking can be redirected to a more adaptive perspective (Moskowitz, 2010). An adaptive perspective will look for solutions instead of dwelling on problems. This promotes resilience as it interrupts stress (Ong, Bergeman, & Chow, 2010). In connection with a positive attitude, self-reflection also promotes self-improvement. The goal of self-improvement can promote self-regulation by refocusing attention from anxiety causing problems toward the action involved in solutions (Wagner & Heatherton, 2014).

Respondents in this study gave many examples of the implementation of their individual faith as a tactic to reduce stress and promote a shared sense of meaning. McCullough and Carter (2011) assert that religious practice generally increases self-regulation. In their view, a shared faith assists in establishing mutual goals and values. Their research found that this was true for both explicit religious practices and implicit processes. They stress that prayer can increase self-reflection and assessment that can lead to goals and action (Koole, 2007). They cited studies that found that subjects exposed to religious objects showed an increase in the ability to accurately evaluate situations and frame challenges as surmountable (Weisbuch-Remington, Mendes, Seery, & Blascovich, 2005).

There are specific tactics that can assist administrators in promoting resilience among faculty members. Resilience is supported through the encouragement of training, proximal goals, reframing, and discussion.

In change situations, training is typically an imperative. The effective use of a new method or technology will most often require training. However, the benefits of training are not limited to simply learning what is needed to accomplish the change. The act of studying will in itself reduce anxiety as it reinforces the control of the individual (Koiole, Van Dillen, & Sheppes, 2011). This benefit of training is a reminder of why instruction and assistance that can result in further learning should be available throughout the change process.

In addition to providing sufficient training, administrators should also frame learning in terms of proximal goals. In this process, administrators can offer quick and frequent feedback that encourages individual teachers to note progress rather than dwell on failure to accomplish the larger goal of the change (Cervone, Mor, Orom, Shadel, & Scott, 2011). When combined with an environment that equates failure with learning instead of performance, this will encourage teachers to maintain personal improvement rather than focusing on competitive comparison (Dweck, 2008).

The encouragement of reframing is a useful tool for administrators in several contexts. When teachers are encouraged to reframe a situation they can reduce anxiety by setting goals and making mutual plans to achieve and evaluate those goals (Proudfit, Dunning, Foti, & Weinberg, 2014). This process reduces the negative evaluation of a situation by substituting goals for negative affect (Grecucci & Sanfey, 2014). The reframing of a situation changes the evaluation by adjusting the emotional response toward a more realistic appraisal. This reframing will emphasize the positive and find a method of dealing with negative emotional response (Mennin & Fresco, 2014).

The promotion of discussion represents an effective tool for administrators to use to promote resilience. Discussion of the change can prepare teachers by encouraging reframing and reappraisal as an individual compares his or her concerns with comments made by peers. At the beginning of the change process, this can help by encouraging pre-appraisal, which is reframing a situation in advance of the change. Pre-appraisal can prevent the challenging task of dealing with negative affect later in the process (Joormann & Siemer, 2014). This can also create a sense of load sharing as individuals seek and receive support through the process of dialog (Coan & Maresh, 2014).

Group discussion of a change (both before and during the process) will reduce stress by encouraging individuals to acquire emotional goals. Emotional goals are set when individual reactions are compared to the less intense reactions of others. In this process, discussion combined with social relationships lead to reduced anxiety and reappraisal (Mauss & Tamir, 2014). Additionally, a dialog process that allows for different opinions and the discussion of needs and possible problems can encourage resilience by addressing concerns and building trust (Rogers, 2003).

Implications of the Research

In the process of interviewing teachers regarding change situations, this study uncovered new information advantageous for promoting successful change in school settings. The findings of this study served as a basis to develop the Resilience Model for Teacher Change. This model stipulates the protective factors of resilience by encouraging a positive attitude, effective self-regulation, adaptive problem-solving, a shared sense of meaning and community resources. These protective factors create resilience for teachers dealing with the ambiguities entering a change process, the contingencies required to

accomplish change and the evaluation and accommodation of the repercussions of change. The data show that resilience is found in the adaptive use of support, strategies and faith.

Implications drawn from this study include beneficial considerations for individuals, for relationships with fellow teachers, and for the change environment. The findings of this study encourage teachers and administrators to evaluate strategy use, to build relationships on staff, and to create an adaptive change environment.

Evaluate strategy use.

Findings from this study show that emotional reaction to change varies by individual. When negative emotions such as anxiety, threat, and fear are accommodated the change process is supported. When these emotions are not identified, the process is hindered. Moving individuals into the realm of positive emotional response will promote problem-solving. As teachers successfully manage problems, the resultant feeling of success will feed back into positive emotions (Ong, Bergeman, & Chow, 2010).

The promotion of problem-solving as a way of dealing with stress positively affects the change process. Stress can create energy useful for identifying and evaluating contingencies and repercussions of change (Rothbart, 2011). Problem-solving is the positive answer to problem-sitting that leaves an individual with no recourse but to complain about the situation.

Part of the problem-solving process is the identification of what aspects of change can and cannot be changed. In this action, energies can be redirected in a direction that gives promise for positive results. Negative aspects that cannot be changed can be handled in a way that promotes acceptance. The process of separating what can be

changed from what cannot be changed will promote an internal locus of control regarding

the change process. An internal locus of control sets a teacher's mind to focus on what

can be done to improve the process of change (Bruce & Ross, 2008).

Change prompts many emotions including anxiety and excitement. Change also

provides an opportunity for growth. A focus on growth potential will help to reframe

mistakes and failures in a positive light (Moskowitz, 2010). Moreover, prioritizing

process over product will work to change the threat of failure to the understanding that

mistakes promote learning (Dweck, 2008).

Build supportive relationships.

Research on resilience suggests that supportive relationships are an essential

aspect of successful change (Pargament & Cummings, 2010). Data from this study

support this understanding. Building relationships among the staff members allows the

development of cohesion and a sense of meaning that works to reduce tensions and

redirect focus toward the shared reasons for the change. The result is a positive attitude

regarding the change.

Developing relationships goes beyond creating cohesion on the staff. As indicated

in this study, when teachers know each other when the administration maintains a

relationship with a teacher that is more than surface level, then opportunities for

emotional assistance present themselves more often. Teachers working together can learn

to predict emotional responses of others and position themselves in such a way as to be

able to alleviate stress.

Building relationships requires time and talk. Teachers in dialog come to know,

appreciate, and trust one another. Additionally, they have the opportunity to learn each

other's perspective on issues surrounding change. Strong relationships and much time for discussion will work to prevent interrelation tension that can slow down the process of change. An environment that is built on supportive relationships and dialog will be poised to do the important work of reframing obstacles as growth opportunities instead of hindrances to change.

Create a change environment.

Research on resilience indicates that community resources are an important factor (Hall & Zautra, 2010). Teachers with such resources will have less stress due to confusion. Additionally, they will not have to depend on self-instruction. A change requires adequate training for new methods, tools, or curriculum. New policies need training in how best to administrate and adapt practices. Training involved in change should never be considered as a one-time thing. As a change progresses, teachers need further training and access to experts to keep the change process going.

Changes rarely happen quickly. When teachers know from the onset of change that problems and adaptations are expected and that time has been allotted to manage such occurrences, stress can be reduced. Additionally, consideration should be given for when training and trying out new techniques will occur (Denhardt & Denhart, 2010). Additional time during the school day, as well as time during the school year, may be necessary for a teacher to be able to accept and use a change. When teachers are teaching, they are performing a change. They need time, away from their students to be able to practice the change. Both practice and performance will enhance learning.

Data from this study support the careful use of communication in creating a change environment. Teachers in his study mentioned the need for communication to be

clear, continuous, and consistent. Good communication goes a long way in making learning more efficient and reducing stress.

A change environment is one that promotes a focus on process over product while in the change process. This focus will promote the ability to learn from mistakes as well as the encouragement to experiment with new methods and tools. Experimentation in an environment that teaches one to learn from a mistake, rather than to avoid mistakes at all costs, will promote growth (Dweck, 2008). This type of environment is crucial to the change process because it promotes the evaluation and adaptation of a change, which will prevent the change from being abandoned or avoided. An environment that encourages trial and error is an environment poised to discover the next good change.

When a teacher tries a new technique, that teacher is putting himself or herself at risk of criticism. Teachers need a safe place to talk about change (Zeece, 1994). Teachers also need the assurance that their efforts will be defended by administration (Kagan & Snidman, 2004). As teachers indicated in this study, criticism from parents is a concern involved in the risk of change. A change environment that promotes dialog about change, that provides needed training and other resources for change, and that assures teachers that their adaptive actions toward making change happen will be defended will go a long way in promoting change.

Limitations and Future Research

This grounded theory study sought to explore teacher reaction to change and to formulate a theory based on data collected from teachers. This research does not support causal inferences. It is not clear, for example, that reactions and strategies determined to

be resilient in nature are required for successful change. Nor is there any guarantee that such reactions and strategies will accomplish successful change.

For several reasons, including the ability to study change in organizations with a flat hierarchy, this study was limited to elementary teachers in the school system of the Lutheran Church Missouri Synod. However, the teachers in these schools tend to share a faith that is integrated into their teaching. This may serve as a resilience factor of its own, allowing for a strong shared sense of meaning for the staff.

This study offers several opportunities for future work in the area of teacher reaction to change. Future studies could:

- Seek to expand this study to other education populations.

- Seek to expand the list of strategies that promote resilience by interviewing a larger number of participants.

- Seek to show a causal relationship between such strategies and successful change.

Summary

As noted by several participants in this study, change in education is inevitable. Change is often stressful, is hopefully beneficial, but is unfortunately not always successful. However, change is an imperative if our education system is going to improve in preparing our students for their contribution to, and participation in, their world.

The Resilience Model for Teacher change gives a framework for consideration of an individual response to change. In this model, resilience offers strong support for encouraging the process of change. A positive attitude, the ability to self-regulate, supportive relationships, and community resources including a shared sense of meaning

all work together to promote problem-solving in change situations. Because of the support of resilience the inevitable ambiguities, contingencies, and repercussions so often evident in the course of change can be met and overcome with mutual support, useful strategies, and personal faith.

The Resilience Model for Teacher Change provides a way for administrators to encourage teachers by creating and maintaining a work environment supportive of change. Resources, social interaction, and individual responses can be evaluated and adjusted to continue the process of change.

A change process that takes into account the fact that different teachers have different reactions and needs will be a change process more likely to succeed. Change in education is rarely about the person negotiating the change. Change in education is rarely about the change itself. Change in education is always about those who are in the classrooms, adapting, learning, trying, evaluating, and using change. The Resilience Model for Teacher Change suggests there are ways to create resilience in teachers as they navigate the change process. This resilience can position change as a positive, exciting, learning experience that benefits the students, the school, and the teachers.

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Appendix I

Interview Protocol

1. Ahead of the interview, complete the calendar to the best of your memory. The

   purpose of the calendar is to help you organize memories.

Policy/proced ure change	Curriculum change	Technology change	Grade level taught	Principal	School	City/State of residence	Year

Interview Protocol

Study: Lutheran elementary teacher reaction to change

Date:
Time:
Interviewer:
Interviewee:
Pseudonym:
Time of interview:
      Start time: End time:

(Introduction)

Thank you for your valuable time. Your answers to the following questions will give a voice to teachers in the process of change. From your answers, this study hopes to develop a theory regarding individual reactions to change. The interview will take from 30-45 minutes and any information shared will be kept in strict confidence. Please feel free to elaborate on any questions or to decline to answer any questions that make you feel uncomfortable. I am recording this interview, which will be transcribed. I will ask you to review the analysis and may ask for an additional interview. This is done to assure that your view is accurately represented. The results of this interview will only be used for academic research purposes. You are encouraged to use your notes from the calendar. Do you have any questions before we begin?

From the bottom three rows on your calendar, find a change that was required of you, as

opposed to one that you chose.

1. Tell me the story of this change.

    Probe 1:   Please describe your perception of the change.

    Probe 2:   How did you handle the change?

    Probe 3:   What strategies did you use to respond to this change?

2. How did others in your learning community help or hinder your ability to

    implement this change?

    Probe 1:   How does your philosophy regarding change compare to your

    administrator?

Probe 2:   How does our philosophy regarding change compare to fellow teachers?

Probe 3:   How do your religious beliefs impact your view of change?

3. How do you typically go about change?

Probe 1: How do you feel when you realize something will change?

4. What kinds of changes do you see yourself making in the next five years?

5. Is there anything else you think I should know to understand better?

6. If you were doing this study, what would you ask?

Appendix II

Participant Recruitment Letter

Date:

Re: Lutheran Elementary Teacher Reaction to Change Research Study

(Name and address of participant)

Kim Marxhausen

Dear _____,

I am writing to let you know about an opportunity to participate in a research study about Lutheran elementary teacher reaction to change within the learning community. This study is being conducted by myself at the University of Nebraska at Lincoln.

Most information regarding accomplishing change in schools centers on the change process and those who orchestrate the change. Little information exists regarding the teachers who are required to implement change. This study seeks better to understand the process by which Lutheran schools make changes in technology, curriculum, and policy by giving a voice to the teachers involved in implementing the change. Your principal has given me permission to contact you regarding your possible participation in this study.

Participation in this study will require you to complete a calendar activity and to answer a list of open-ended questions in an interview setting. The process is expected to take around 30-45 minutes. Participants will also be contacted, at a later date, to review the information and verify responses. Some participants may be asked to answer follow-up questions. Participants will receive a small gift to compensate for the time involved in the process.

Participants are guaranteed confidentiality. Your principal will not have access to your interview responses, nor will this person be advised that you are participating. Your answers will be analyzed, along with the answers of other participants, in order to inform the development of a theory regarding different reactions to change in a Lutheran school setting. Any responses reported in the research will use a pseudonym for both the participant and the school. Additionally, as a participant you will review and correct collected information. At any point in the research, participants may remove themselves from involvement and any information collected, from that participant, will be deleted from the study.

For more information, contact me at _____.

Appendix III

Sample of Event History Calendar

Figure 1. Event History Calendar

Name

Year	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
City/State of residence	Tobias NE			Lincoln NE				
School affiliation	Zion			Faith				
Principal	Hohbein			Kruse			Tietz	
Grade level taught	1-4	1-4	1-4	1	1	1-2	1	1
Technology change			PC (not for use with students)	No PC				Computer lab
Curriculum change				Math, LA	Science	Reading	Social Studies	
Policy/procedure change					Discipline policy	Special education services		