

How School Leaders Support the Development of Growth Mindsets in Teachers to Benefit

Diverse Students

By

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Abstract

Despite the awareness of achievement and opportunity gaps among students of diverse needs and backgrounds, limited progress has been made in closing these gaps. Literature indicates that mindsets reflecting belief in the malleability of intelligence, holding high expectations for students, encouraging goal setting, persistence, and use of strategies in the face of challenges, impact achievement and growth for all students. While the literature reveals that teachers' mindsets can have significant impact on classroom practices and the learning trajectories of students, particularly students of color, students of low socioeconomic status, and students with disabilities, there is limited research regarding how leaders can effectively influence teachers to develop and maintain growth mindsets. To address this gap, this study explored the ways school leaders support the development of growth mindsets in teachers to benefit diverse students. Using a collective case study design, the researcher used qualitative methods including interviews, observations, and analysis of documents to examine building level leadership strategies and processes that influence teacher mindsets to enhance learning, address gaps, and support growth mindsets. This study revealed promising leadership practices that encourage and maintain growth mindsets among staff toward their students to effect more equitable classroom practices, more effective feedback methods, and increased use of effective strategies in the face of challenges to the benefit of all students. These leadership practices included maintaining and communicating a clear, focused vision that was aligned with the leader's philosophy, was learner centered, and was embedded into all of the school's practices. Leaders focused on building relationships and used those relationships to create and maintain cultures that encouraged collaboration, modeling, risk-taking, and learning from challenges and mistakes. Leaders

expressed confidence that all teachers had leadership potential and encouraged the development of their individual leadership skills. Professional development was a key feature in developing the culture of collaboration, developing teacher leaders, and establishing teacher self and collective efficacy. Professional development that involved self-examination of individual mindsets rather than learning focused only on instructional strategies for students was especially critical in developing growth mindset orientations for the teachers. In addition, leaders made conscious decisions and efforts to shift the language used across instructional practices, assessments of student learning, and behavioral strategies, away from a deficit orientation to language and expectation of growth for all learners. The shift in language applied to learners across all demographic groups, ages, and grade levels.

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Chapter 1

Introduction

Growth mindset, habits of mind and building resiliency and grit among students have recently become prolific topics in educational literature. In the era of testing, educators have often been challenged to balance the need for accountability with meeting the needs of diverse learners, decreasing gaps in achievement, and supporting the professional needs of teachers to address those needs. Despite this emphasis on accountability, “achievement gaps” have remained as one of the largest educational issues in the nation (OSERS, 2016). Culturally relevant instruction, resiliency, mindsets, and engagement strategies of students in their learning, all hold the potential to break down the barriers to learning and reduce the differences in achievement regardless of demography. Dweck's (2006) work on growth mindset provides a potential pathway for school leaders to impact the teaching and learning for students with disabilities, students who are receiving interventions via a multi-tiered system of supports, English Learners, students of color, and in general, students who have typically been marginalized regardless of intentionality within the K-12 public education system. Although the impact of teachers on student achievement and performance has been widely accepted as critical to growth and development, teacher mindsets have benefited from less investigation than have student mindsets. The impact of leadership on mindsets have seen even less investigation within a school structure (Teal, 2012) although much has been written about the mindsets in coaching and business leadership (Dweck, 2006). The dearth of research with regard to leadership has prompted this research study. More specifically, the research question is “In what ways do

school leaders support the development of growth mindsets in teachers to benefit diverse students?”

Mindsets are the beliefs that people hold regarding the nature of human attributes such as intelligence or personality, and the way that people cope with challenges and failures (Dweck, 2006; 2012). According to Dweck (2006), mindsets that correspond to growth and adaptive self-concepts are growth mindsets whereas mindsets that lead to the creation of barriers, stagnation in growth and reduced self-esteem are considered fixed mindsets. For individuals who hold growth mindset perspectives, human qualities, such as cognitive skills can be cultivated through effort and use of strategies. They view difficulties as challenges and avenues for growth. This is in contrast to individuals with fixed mindsets in which intelligence, personality characteristics, talents, etc. are stable or fixed traits. Failure or challenges to these characteristics, are viewed negatively and as personal failures. The feedback provided to individuals can influence their mindsets. Feedback that is specific, addresses the goal, the current position in relation to the goal, and strategies to close the gap are elements of feedback for effort. This type of feedback and improves learning more than feedback that serves managerial functions such as a grade or an overall mark (Black, Harrison, Lee, Marshall & Wiliam, 2004; Black & Wiliam, 1998; Dweck, 2012; Huebner, 2009; Ryan & Shim, 2012; Taras, 2003; Weinstein, Gregory, & Strambler, 2004; Wiliam & Marshall, 2005; Wormeli, 2006).

In classroom settings, mindsets of educators may be influenced by social conditioning such as stereotypes and deficit ideology (Aronson, 2004; Aronson, Fried & Good, 2002; Bal, Sullivan, & Harper, 2013; Dweck, 2012; Klinger, et. al. 2013; Minor, 2014; Smith, Crawley, Robinson, Swaim, & Strander, 2011). Research has suggested that educator mindsets may then influence pedagogical practices in terms of expectations, feedback, and language, which may

impact learning and social trajectories differently for students with disability labels, students of color, and students whose first language is not English (Artiles & Clark, 2000; Artiles, Klingner, Kozleski, Harry, Zion, Tate, Duran, & Riley, 2005; Ferguson, Rowley, & Friedlander, 2015; Gutshall, 2013; Hauser-Cram, Selcuk, & Stipek, 2003; Osterholm, Nash & Kritsonis, 2007; Rattan, Good, & Dweck, 2012). In this way, teacher mindsets and practices may be contributing to the maintenance of achievement gaps within these populations (Ferguson, 2003; Minor, 2014; Tenenbaum & Ruck, 2007; Weinstein, et. al., 2004). Much of the current research is focused on expanding the populations of focus that may benefit from growth mindset strategies and expanding and specifying the tool kits for teachers for improved classroom practices. A recent study in Chile which focused on economically disadvantaged students provides an example of the expanded populations included in recent mindset research. This research found growth mindsets to demonstrate a positive relationship with achievement within this subset of the population as well as across all of the socioeconomic strata (Claro, Paunesku & Dweck, 2016).

When people operate from growth mindsets, they tend to consider context variables such as situations, processes, needs, beliefs, and goals more than traits (Hong, 1994; Levy & Dweck, 1999; Molden, Plaks & Dweck, 2006). Those who operate from fixed mindsets are more likely to apply trait based judgments which can lead to limitations on learning, lowered expectations and perpetuation of lowered goal achievement and learner efficacy (Dweck, 2012; Molden, Plaks, & Dweck, 2006; Levy, Stroessner, & Dweck, 1999). Research addressing these teacher mindsets and beliefs has indicated that teachers who believe intelligence is trait based may provide less support to students while those who believe ability is malleable, were more likely to support

instructional goals teaching problem solving (Seibert, 2006; Stroscher, 2003; Swann & Snyder;). These researchers also found a link between growth mindsets and teacher self-efficacy.

Given this link between mindsets and teacher self-efficacy, the literature related to the ability to shift teacher mindsets and effective leadership practices to support that shift and develop a culture of growth mindsets was reviewed. Teacher efficacy is defined as teachers' expectations that they will be able to perform the actions that lead to student learning (Ross, Cousins, Gadalla, & Hannay, 1999). This definition includes an expectancy about future outcomes that influences present behavior through cognitive process, especially goal setting, motivational processes such as attributions for success, and affective processes (Bandura, 1986). Greater effort and persistence occurs in individuals with high levels of self-efficacy which then promotes positive self-perceptions. Consistent with Dweck's work on growth mindset, individuals with high levels of self-efficacy are likely to view difficulties as challenges rather than as threats as may be the case for individuals with lowered levels of self-efficacy (Ham et al., 2015).

Research has indicated that teacher efficacy affected teacher expectations of students' learning abilities (Huebner, 2009), and their beliefs regarding their own capacity to teach them (Ferguson, 2004). Teachers with a high sense of efficacy (including confidence, determination, realistic expectations, and an awareness of learning challenges) were more likely to view low-achieving students as reachable, teachable, and worthy of their attention and effort (Ashton & Webb, 1986; Huebner, 2009). High efficacy teachers expect students to achieve, assure them they will be taught the skills necessary, provide a structure for mastery orientation emphasizing learning and progress over performance and ability, and consider errors a natural part of the learning process versus a lack of ability (Huebner, 2009; Ryan & Shim, 2012). Teacher self-

efficacy contributes to increased teaching quality and greater accountability for student learning (Goddard, 2002; Ham, Dwyer, & Gurney, 2015; Rockoff, 2004; Ross & Gray, 2006).

Teacher self-efficacy has been linked to collective efficacy and teacher behaviors that foster student achievement (Ross, Cousins, Gadalla & Hannay, 1999). Teacher efficacy has been shown to produce higher student achievement in core academic areas as well as higher achievement on self-esteem goals, self-direction, motivation, and attitude toward school (Ross, et al., 1999). Teacher efficacy is associated with collaborative cultures and shared decision making between principals and teachers. Leadership practices that provide for shared power create greater motivation, increased trust and risk-taking, and build a sense of community and efficacy. Peer relationships among adults may have a greater impact on classroom practices than leadership alone (Walstrom & Louis, 2008). Angelle and Teague (2014) also found a clear, strong and positive relationship between collective efficacy and the extent of teacher leadership.

The concepts focusing on collective efficacy and teacher leadership may fall more within the realm of distributed leadership. Distributed leadership, as defined by Bredeson and Kelley (2010), is the collaborative work of principals and teacher leaders that creates the conditions, structures, processes and individual capacities to influence instructional designs and practices that affect student learning. Spillane, Halverson, and Diamond (2004) assert that leadership activity is constituted in the interaction of leaders, followers, and their situation in the execution of particular leadership tasks. Leadership activity is to varying degrees distributed or stretched over various facets of the situation including tools, language and organizational structure. In this framework of distributive leadership, they are concerned with day to-day leadership activity, not just broad styles of leadership or organizational structures and roles. Leadership activity at the level of the school, rather than at the level of an individual leader or small group of leaders, was

advocated as the appropriate unit of analysis in studying leadership practice (Spillane, Halverson, & Diamond, 2004).

To study leadership practice we need to study leaders in action within the conditions, structures, and the day-to-day leadership activities (Spillane, et.al. 2004), which may create or contribute to building cultures reflecting teacher growth and effort by encouraging a culture of mutual support and help as opposed to a climate focused on competition and test scores (Butler, 2007). These research results are important as leaders look to effective practices in teacher development to positively impact student achievement. The results are also important in considering the essential question in this study, that of how leaders can influence and sustain a growth mindset in their instructional staff.

Teal (2012) examined the effects of growth mindset principal leadership from a transformational leadership perspective using a case study approach in seeking to determine a growth mindset principal's influence on teachers who ascribed to either fixed or growth mindsets. His work specifically looked at schools that reflected significant growth in economically disadvantaged student populations. Teal concluded that in each case, the growth mindset principal projected a culture of hope. Teal further concluded that schools need educators who are willing to evolve to become growth mindset thinkers and to develop cultural norms that reflect effort and perseverance. According to Teal's research (2012), teachers who believed that a student's socioeconomic background was a pre-determinant to their success in school likely felt ineffective in teaching these students, and thereby, perpetuated low student achievement. Common characteristics of growth mindset principals included the following: a primary focus on student success, an emphasis on feedback, including feedback between teachers and principals, and the development of collaborative systems to empower teachers in decision-making.

Teal (2012) recommended further study of leadership through verification studies of growth and fixed mindset principals as significant factors in transformational school leadership, building supportive school cultures, and confronting fixed mindset thinking with education. Within the study, Teal identified a gap in current research as that of the process of changing mindsets of teachers. Specifically, Teal asked “What are the most effective ways a growth mindset principal can effectively change a fixed mindset teacher to the extent that the change would be sustained over time?” Teal’s work identifies an important gap in the research on educational leadership and it highlights the relevance of my proposed work.

Growth mindsets may have far reaching applications in educational environments and may significantly impact the achievement of all students. Growth mindsets among teachers may be a critical component of improving achievement for all learners, closing achievement gaps and providing equitable access to educational opportunities for all students regardless of label, demographic, or physical characteristics. Only limited research, however, has attempted to identify the leadership strategies that support shifting mindsets among school personnel to successfully change teacher mindsets and instructional practices. The goal of this study is to begin to address this gap by examining how school leaders support personnel to effect these shifts in mindsets, particularly as it impacts teaching of marginalized students. The research question driving this study asks, “In what ways do school leaders support the development of growth mindsets in teachers to benefit diverse students?”

Chapter 2

Literature Review

In this chapter, I begin with a review of the definition of growth mindset (Dweck, 2006). I examine the role of growth mindsets in schools with respect to both classroom practices and educator mindsets. Next, I consider the potential impact of these practices on the development of the students they teach. I give particular attention to diverse learners, including those identified with disabilities and traditionally marginalized student populations including students of color, students living in poverty, and students whose first language is not English as these students are not only marginalized but are also more often recipients of fixed mindsets and stereotypical attitudes. Given that premise, it is critical for the mindsets of teachers and leaders to be addressed. I then examine the literature on how school leaders can influence and develop growth mindsets within their teaching staff to empower student learning and engagement of all learners. Finally, I discuss implications for practice and further research.

The book, *Mindset How You Can Fulfill Your Potential* (Dweck, 2006) serves as a critical foundation for the examination of mindsets in education. Dweck described a wide range of leaders from coaches to business leaders to classroom teachers from the perspective of the mindset they demonstrated and the effects on their careers and learning trajectories. The range of implications of developing growth mindsets among teachers and the role of leadership within that arena are broad and spurred my interest in researching the topic further. I began the literature

review by searching library databases of Education, PK-12 Education, Ed Admin Abstracts for peer reviewed education literature related to mindsets and leadership for learning. I entered combinations of search terms such as “growth mindset” in conjunction with “K-12 leadership”, “educational leadership”, “leadership” and “education.” “Fixed mindset” and “mindsets” were also searched with “leadership.” Additional combinations with mindsets included “teacher practices,” “efficacy/collective efficacy” and “achievement.” Although many of the search terms are broad when considered in isolation, when used in conjunction with one another, the searches were narrowed. This focused search resulted in a list of 37 articles that I have included in the review. These ranged from empirical studies of school practice to conceptual analyses of mindsets and learning in education. I then identified additional articles through the snowball process (Miller, 2011). In conjunction with these scholarly articles. I reviewed key books written by scholars and experts in education.

In the initial part of the literature review, I centered on the definition of growth mindset and the relevance to educators with respect to instructional practices including, feedback, differentiation, grading, and goal setting. I then reviewed the effects of teacher mindsets on the learning of various populations within the student body and on their own self-efficacy. The literature on teacher mindsets, teacher self-efficacy and confidence and the interrelationship among them and the impact of these on varied with populations of students emerged as influential on student growth academically and behaviorally. These factors were also evident

with respect to teachers taking on leadership roles. Teacher leadership and growth mindset oriented leadership began to emerge as having potential for further research.

Defining Growth Mindset

Establishing an understanding of growth mindsets through a review of peer reviewed literature is essential in addressing the first purpose of this proposed study. A common understanding and the related literature will provide a basis for consideration of how it applies to teacher practices and student learning. In her book, *“Mindset How You Can FulFil Your Potential,”* Dweck (2006) describes a framework for conceptualizing mindsets and the role they play in developing expectations, self-motivation, resilience, persistence, increasing academic and other achievements, for oneself and others and how those mindsets relate to learning, job performance and the development of self-efficacy. Dweck (2006; 2012) described the influence of a person’s mindset on their learning and decisions. She described the beliefs that people hold regarding the nature of human attributes such as intelligence or personality, and the way that people cope with challenges and failures as “mindsets” that correspond to growth and adaptive self-concepts versus the creation of barriers, stagnation in growth and reduced self-esteem. One of the basic premises of her research is that human qualities, such as cognitive skills can be cultivated through effort. Having this belief system reflects a “growth mindset.” This is in contrast to “fixed” mindsets in which intelligence, personality characteristics, etc. are stable or fixed traits.

According to Dweck (2006; 2012), it is the view you adopt for yourself that affects your achievements. Individuals with “fixed mindsets” continually have to prove their worth. They are hampered by feedback that challenges their perceptions of their traits/abilities/talents. People with fixed mindsets operate from an “entity” theory, or the belief system that individuals either have it (trait, ability or talent) or not. Individuals with “growth mindsets” believe that people can grow and develop their traits, characteristics and qualities with effort, use of strategies, and experience. Individuals with this belief system operate from an “incremental” theory of intelligence (Dweck, 2006). Individuals with growth mindsets are more readily able to accept critical feedback, learn from their failures and meet challenges whereas individuals with fixed mindsets are less adept in managing failure or difficulty, which often leads to feelings of failure, diminished self-esteem, and decreased effort. They tend to avoid challenges, show less resilience in the face of setbacks, and hold beliefs that they lack ability, leading to discouragement or defensiveness (Blackwell, Trzeseiwski, & Dweck, 2007; Robins & Pals, 2001; Nussbaum & Dweck, 2008).

Argyris’ (1991) research on adult learning in business environments described a similar view of learning with adults in terms of single and double feedback loops. He describes many professionals as having experienced success and rarely experiencing failure such that they have not learned how to learn from failure. When single loop strategies are ineffective, they are challenged to reflect on their behavior and thus learn from their mistakes. Similar to Dweck’s

fixed mindsets, Argyris notes that individuals then act to avoid embarrassment or threat and feeling vulnerable or incompetent and engage in defensive reasoning. This reasoning encourages individuals to avoid testing other actions. Those who rarely experience failure do not learn how to deal with it effectively as is the case with individuals operating from fixed mindsets.

Growth Mindset Applications in Education

In order to understand how educators' and leaders' mindsets affect the learners in the classroom, it is important to establish the relationship mindsets have to classroom instructional practices. In this section, I examined key scholarship that addresses this connection. Some of these concepts include feedback, grading, and differentiated instruction.

A central tenet of the growth mindset in education is feedback and the influence feedback has on a learner's mindset, performance outcome, and learning. Feedback, real or perceived, can significantly influence performance and can be significantly influenced by the mindsets and stereotypes we hold. Students may have beliefs and worries in school that prevent them from taking advantage of learning opportunities. They may question their abilities or think others are judging their abilities. Consciously or unconsciously, others may look at them through the lens of a negative stereotype of the group vs. looking at them as an individual (Yeager, Walton & Cohen, 2013). Feedback may take many forms including praise, grades, test scores, and verbal or written reviews. Praise for effort promotes growth mindsets, improvement, and responsiveness to challenges, whereas praise for talents, traits or outcomes, can be counter to growth. Poor grades

or test performance can lead students with fixed mindsets to question their worth, intelligence or ability and can prove devastating to their confidence. For students with a growth mindset, the outcome is less important than the process; the focus is on their own learning and improvement of themselves (Dweck, 2006).

Instructional Practices

Tomlinson (2010) asserts that differentiation is consistent with the growth mindset and requires teachers to show students the link between effort and success. Differentiation enlists the student's energy in their own learning. Lowering expectations for students' behavior, classroom participation, self-awareness as learners or for their own cognitive development, can hinder student learning and reinforce "fixed mindsets." Tomlinson advocates for high expectations and asserts that we fail students when we operate from fixed mindsets, when we look at what we believe they cannot do and lower our expectations of them (Tomlinson & Imbeau, 2010).

Multiple intelligences and learning styles research demonstrate that a greater potential for learning occurs when learners are engaged, associate new learning with existing information and are allowed to consolidate this information in a manner suited to an individual learning style. (Sabban, 2006). Kapur (2016) considered unguided or minimally guided novel learning conditions as compared with direct instruction on the learning conditions and under which conditions greater long term learning occurred as well as when and what type of supports should be provided for maximum learning and when support is most effective for retention and

triggering prior knowledge (Kapur, 2012). In expanding the learning conditions to include productive and unproductive failure, Kapur found improved conceptual understanding and transfer when students engaged in problem solving prior to instruction rather than after instruction. Additional benefits were suggested as positively affecting learner agency, engagement, and motivation to learn the target concept for post problem solving instruction (Kapur, 2016; Belenky & Nokes-Malach, 2012; Clifford, 1984, Hiebert & Grouws, 2007). A commitment to building on a learners' prior knowledge, scaffolding supports for learners and determining a student's zone of proximal development, may involve assessing the student's knowledge through failure and analyzing the information to determine scaffolds, consolidate, and assemble new knowledge. The analysis suggested productive success may be embodied by iterative cycles of productive failure (Kapur, 2016) and that productive failure provides a way of engaging students in unguided problem solving to determine prior knowledge necessary for addressing the gap between a student's developmental level and a higher level of development or zone of proximal development (Kapur, 2016; Vygotsky, 1978). The ability to learn from mistakes and challenges is a central feature in developing growth mindsets.

Differentiation acknowledges the importance of learning styles and preferences as well as the provision of a safe, non-threatening learning environment to encourage learning. Children who experience discomfort through rejection, failure, pressure and intimidation may not feel safe within the learning context (Tomlinson & Kalbfleisch, 1998). A safe learning environment can

be impacted by a wide variety of factors including feedback and grading practices. Students need to feel safe and comfortable in accepting learning challenges and within that context be ensured that the content is appropriate to their readiness levels and their interests. Allowing for student interests within the learning community ensures that even marginalized students find a place. This includes recognizing that all learners have aptitudes and passions including those who are struggling or who have diverse backgrounds and skill levels. Providing an opportunity within the classroom for them to explore and express these interests, mitigates against the sense of failure previously experienced by these students (Lawrence-Brown, 2004). Tomlinson recommends that teachers reflect on their mindsets, how their mindset affects their expectations of students and that teachers gain insight into the mindsets of their students. She encourages teachers to influence their colleagues to do so as well (Tomlinson & Imbeau, 2010).

Criticism of differentiation as related to mindsets. While agreement is seen with regard for the need for a challenging curriculum and high expectations for all, Weinstein (2002b; Weinstein, Gregory, & Strambler, 2004) argues that implicit theories and instructional choices that underlie differentiated practices are based on normal intelligence distributions and innate ability which belie fixed mindsets versus equitable environments reflecting growth mindset orientations of malleable intelligence and learner agency. This argument is in conflict with Tomlinson and Javious (2012) who advocate for deemphasizing innate ability while recognizing that students come to the classroom with varied points of entry into a curriculum and move

through it at different rates. Tomlinson and Javious recommend teaching up to all learners in the classroom to ensure equal access. Teaching up includes acknowledging and appreciating varied ability levels within the classroom, recognizing the malleability of intelligence and developing growth mindsets of teachers and students, and establishing safe classroom environments where effort and goal achievement are encouraged through guidelines and feedback. Growth mindset teachers establish learning environments that support high expectations for growth, regardless of current performance levels, and incorporate differentiated instructional practices (Tomlinson & Javious, 2012).

Classroom instructional practices can be intentionally designed to provide students with meaningful feedback, identify where students are in relation to their goals and determine what needs to occur to close the skills-goals gaps. This provides more meaningful feedback to students than does providing grades or reflecting judgments of the students' skills (Wormeli, 2006).

Feedback and Grading. Contributing to the research on feedback and grading, O'Connor (2009) identified practices reflective of the growth mindset that contribute to student learning. He cited a large scale research review of 580 articles or chapters on assessment for the period from 1989–1998 (Black & Wiliam, 1998). Conclusions from the Black and Wiliam (1998) analyses included that improving formative assessment raises standards, and helps all students, with the largest learning gains occurring for low achievers. Grading and feedback practices often included an overemphasis on marks or grades with little advice to students on

how to improve or without opportunities for self-assessment of their learning or performance.

Feedback to students appeared to serve social and managerial functions, often at the expense of the learning function. Black and Wiliam (1998) found that feedback improves learning when it gives each student specific guidance on strengths and weaknesses, preferably without an overall mark. Huebner (2009) corroborated the research on feedback indicating that prescriptive, informational feedback that identifies the student's error in problem solving or how the student improved in use of strategies increased student's confidence in the subject matter and learning process. Students who received genuine praise for accomplishments and efforts, and specific feedback on performance were more likely to ask for assistance and to have better self-efficacy than those who had been encouraged to arrive at the correct answer.

The three elements of feedback for the effort of learning were these aforementioned elements of recognition of the goal, evidence of the present position, and an understanding of a way to close the gap (Black & Wiliam, 1998). Keys to successful feedback include the existence or absence of it, and the focus on the work and not on the person (Black & Wiliam, 1998, 2009; Wiliam & Marshall, 2005; Taras, 2003; Black, Harrison, Lee, Marshall, & Wiliam, 2004). These key characteristics of feedback are consistent with the principles of growth mindsets as growth mindsets do not focus on the static ability of a person. Feedback that promotes the development of self-directed, independent, goal oriented, lifelong learners increases intrinsic motivation for learning vs. relying on extrinsic motivators such as grades (O'Connor, 2009). Motivation to learn

comes from success and competence (Manitoba Education, 2006). Assessment can be motivating when it stimulates students' interest, emphasizes progress and achievement rather than failure, provides feedback to move learning forward, reinforces the idea that students have control over, and responsibility for, their own learning, builds confidence in students so they can take risks, is relevant, appealing to students, and provides the scaffolding that students need to genuinely succeed. Motivation for learning is compromised by coercion, intimidation, rewards or punishments linked to grades, infrequent or vague feedback, limitations on personal control, and responsibility without authority. Instead of prompting greater effort, low grades cause students to withdraw from learning. In an effort to protect themselves and their self-image, many students regard low grades as irrelevant and meaningless. Other students may blame themselves for the low mark, yet feel helpless to improve (Selby & Murphy, 1992). These student responses reflect fixed mindsets. These principles are outlined by O'Connor (2009) and are consistent with those of Dweck's work on growth and fixed mindsets.

Motivation, emotions and mindsets. Increasing student self-efficacy and mitigating against a sense of failure is critical to student learning as can be seen by research in emotion and motivation for learning. Students' emotions have been identified as integral for understanding students' goals and self-efficacy, as well as in making projects personally relevant, and in maintaining their well-being (Meyer & Turner, 2002). In considering the role of emotion in learning, research results indicated that for teachers identified as high-involvement, there was an

emphasis on errors as a natural part of learning, a modeling of enthusiasm, an interest in the subject, and opportunities for student autonomy. These characteristics are consistent with growth mindset orientations whereas negative teacher affect was associated with lower learning goals consistent with fixed mindset orientations. Meyer's and Turner's (2002) research conclusions included that motivation may play a more central role in explaining students' responses to challenging work; that emotions may be mediators of motivated actions to approach or avoid learning, and not just an outcome of the actions; and the role of emotions in appraising and coping with situations is important to a person's goals.

Teacher affect as feedback. Teacher support for student well-being has been found to be critical for understanding why students might experience negative affect and use avoidance strategies. Although teachers may scaffold instruction and provide opportunities for student autonomy effectively as in a differentiated classroom, their patterns of affective support have significant impacts on students. In classrooms with higher student reports of negative affect and self-handicapping, the frequency of positive teacher responses was found to be lower and negative responses were higher (Meyer & Turner, 2002). Positive interaction patterns among students and teachers and building supportive classroom contexts were associated with positive affect, learning goals, and teacher support of student self-regulation and self-monitoring of learning.

Research has corroborated the general finding that teachers' actions may serve as an

indicator of classroom values, beliefs (interest and effort cause success or competitiveness causes success), and practices that help to regulate emotion, motivation, and cognition (Meyer & Turner, 2002; Thorkildsen & Nicholls, 1998). Positive or negative teacher affect may be associated with student motivation to learn in the expected directions, whereas the absence of visible teacher affect, may produce significant negative effects. Teachers' affective responses are important for students academically, cognitively, and interpersonally. This research underscores the reciprocity among participants in instructional contexts; how their beliefs, emotions, and actions are constructed through the social interactions to which they contribute (Meyer & Turner, 2002, Weinstein, et al., 2004). It also underscores the necessity for teachers to develop and support growth mindsets for themselves and their students as the feedback they provide and the emotional and affective responses can empower or disempower student learning.

Diverse Learners and Educator Mindsets

To this point, the literature review has focused on how scholars have defined growth mindsets and the connections that have been made between growth mindsets and instructional practices. Given this foundation, the focus will shift to an examination of how these practices and educators' mindsets affect the students that they serve. This examination of the relationships between instructional practices and the potential effect on students addresses the second purpose of this paper.

Rattan, Good and Dweck (2012) described the phenomenon in research that explored the

impacts of teacher mindsets on pedagogical practices when students demonstrated difficulty.

Their results indicated that teachers with fixed mindsets were more likely to comfort students for their presumed low ability, lower expectations and engage in pedagogical practices that could reduce engagement (Rattan, et al. 2012; Hauser-Cram, Selcuk, & Stipek, 2003). This comforting of students was also evidenced by Ferguson, Rowley, and Friedlander (2015) who described the lowered expectations and comforting as ‘coddling.’

Lowered expectations and other fixed mindset practices may include protecting students from failure, identifying/over-identifying and enabling students to continue to need assistance through multi-tiered systems of support or through special education (Bal, Sullivan, & Harper, 2013; Klingner, Artiles, Kozleski, Harry, Zion, Tate, Duran & Riley, 2005). These practices may result in, or contribute to, negative impacts on students’ self-esteem, resiliency, and persistence in the face of challenges (Weinstein, et al., 2004). Further, the over identification of minority students in special education may serve to stigmatize students, segregate them from their peers, expose them to a weak curriculum, limit their access to a general education curriculum and depress post high school employment or higher education options. (Bal, et al., 2013; Donovan & Cross, 2002; Harry & Klingner, 2006).

Teacher mindsets and students with disabilities

Teachers may have biased perceptions and lowered expectations for students with disabilities which may negatively impact their academic achievement trajectories. In an analysis

of over 30 studies, Osterholm, Nash and Kritsonis (2007) determined that teachers' perceptions, attitudes, expectations, and behaviors were different for students with labels than for those without. They concluded that a learning disability label resulted in reduced or negative expectations and negative stereotypes and attitudes. Research has also indicated that teachers are more likely to rate learning disabilities as internal to a child and as stable and uncontrollable traits (Clark & Artiles, 2000) consistent with deficit ideology and fixed mindset perspectives.

Gutshall (2013) reported findings suggesting that there may be a relationship between teachers' implicit theories regarding the stability or malleability of intelligence as they related to hypothetical student scenarios based on Learning Disabilities and gender. While Gutshall found that the majority of teachers have growth mindsets, mindsets were strongly correlated with the mindset for specific student scenarios. This study suggested that when a teacher believes that ability can be changed or grown, the teacher is more likely to view an individual student's ability similarly. If teachers believe that ability is a fixed, stable, and unchanging trait, they may be less likely to view the individual student's ability as fixed or unchanging when a context is provided.

Gutshall (2013) proposed that teachers' mindset views may be related to their views of student ability and that mindset appeared to be a relatively stable construct. Further, mindsets may be relative to the disability label of the student, with some disability labels resulting in more fixed mindsets than others. Gutshall recommended further study of the implications of teachers' mindsets on the classroom including effects on classroom practice, impact on student mindsets,

and the feasibility of changing mindsets to improve student outcomes. Exploration of mindset effects on students receiving interventions through multi-tiered systems of support was recommended as was further study of teachers' whose mindset was neutral or undetermined regarding the stability of ability.

Social Conditioning

Expectations for performance and growth for students with disabilities that are expressed as limitations due to the disability reflect trait-based characterizations consistent with fixed mindsets. Similarly, students of diverse cultures, races, economic status, language, and gender experiences may be the recipients of fixed mindset practices as a result of lowered expectations, teacher stereotypes, and teacher feelings of inadequacy/lowered efficacy, all of which may have significant effects on increasingly large and growing populations of students. When educators apply stereotypes or labels, they operate from fixed mindsets when it comes to students with varied learning and language patterns, behavioral skills and needs as well as from varied cultural, racial or ethnic backgrounds (Dweck, 2012). These mindsets in turn may negatively affect achievement levels for these students (Weinstein, et al., 2004).

Stereotypes. Stereotypes by definition are prototypical of fixed mindsets. Much research has been conducted investigating mindsets and stereotypes as they develop and affect achievement in specific areas such as math and science, contribute to traditional, gender-specific fields of study, and reflect minority students' affiliation and the resulting effects on achievement

(Minor, 2014; Aronson, 2004; Aronson, Fried & Good, 2002; Blackwell, Trzesniewski, & Dweck, 2007; Cury, DaFonseca, Zahn, & Elliot, 2008; Good, Rattan, & Dweck, 2012). The idea that race, ethnicity, economic status, and gender can predict student achievement is grounded in the deficit model and institutional racism. (Aronson, 2004; Weinstein, Gregory, & Strambler, 2004). Extensive research has been conducted related to deficit ideology, lowering of expectations, over representation of students of color in special education, and is evidenced by the growing achievement gap between white students and their non-white counterparts (Bal, Sullivan, & Harper, 2013; Farkas, 2003; Ferguson, 1998/2003; Harry & Klingner, 2006; Klingner, Artiles, Kozleski, Harry, Zion, Tate, Duran & Riley, 2005; OSERS, Dept. of Ed, 2016).

Stereotype threat. Stereotype threat is the fear of being viewed through the lens of a negative stereotype or the fear of inadvertently confirming an existing negative stereotype of a group with which one self identifies (Steele & Aronson, 1995). Steele and Aronson (1995) found that these fears manifested in lower performance by the stereotyped group even when the groups were matched for ability. Stereotype threat has been shown to impair test-taking ability as the stereotyped individual completes fewer items and with less accuracy than non-stereotyped individuals in a control group. The fear of reinforcing a negative stereotype can provoke a disruptive apprehension that interferes with performance as well (Ferguson, 2003; Steele, 1997.) This does not necessarily reflect low self-esteem or individual student weaknesses but an

awareness of the negative stereotype or fixed mindsets which might be in play. For example, members of historically marginalized groups worrying about belonging (i.e. black, Latino students in general, or women in science or quantitative fields). Girls' self-perceptions of lower math abilities than their male peers even when there is no evidence of a difference, has been noted at early ages according to longitudinal research (Herbert & Stipek, 2005; Huebner, 2009).

Language. The language used by educators in talking about varied learners often reflects deficit ideology and lowered expectations. The language that conveys stereotypes, whether intentional or unintentional, places limits on the recipients and reflects the mindset and expectations of the communicator (Smith, Crawley, Robinson, Cotman, Swaim & Strand, 2011; Aronson, 2004; Aronson, Fried, & Good, 2002; Aronson & Steele, 2005; Wong, Eccles, & Sameroff, 2003). The emphasis and language of black-white test score gaps can influence stereotypical perceptions, expectations, and behaviors that may perpetuate the gap in test scores (Ferguson, 2003). Teachers may be less likely to help and support black children than white if they underestimate their intellectual potential. As a result, biases may accumulate over time to create educational environments that under-prepare black students. These situations reflect social conditioning and create self-fulfilling prophecies.

Evidence indicating that social conditioning results in the attachment of value to social constructs of race, socioeconomic status, disability status and other demographic categories, has been demonstrated by research conducted using the Harvard bias tests (Smith, et al., 2011.)

Social conditioning leads to bias and the development of mindsets. The language reflecting these social values and biases was described in the case study of Arlington Public Schools and the turnaround efforts to reduce achievement gaps. The authors described that using “those kids” language sets students apart and dismisses them. A “those kids” attitude can be explicit, implicit or “buried so deep” the person with the low expectations does not even know it exists within themselves (Smith, et al., 2011). They reiterated the fixed mindset concept that low expectations for minority students and other student groups are primary factors in the development of achievement gaps. These observations are consistent with mindset ideology and research on teacher expectations. Smith and colleagues (2011) reported simply that teachers and school personnel communicate their expectations to students and students often adjust their behavior, self-image and achievement to those expectations.

Race and bias. A meta-analysis considering teachers’ expectations and the relationships to referrals for special education, discipline, gifted programs and speech patterns toward European American, African American, Asian or Latino/a students was conducted by Tenenbaum and Ruck (2007) resulting in findings consistent with previous meta-analyses (Baron, Tom, & Cooper, 1985; Dusek & Joseph, 1983). These studies found statistically significant results for teachers holding lowered expectations for African American and Latino/a children as compared to European American children and that these expectations may have negatively affected student academic performance. Negative student achievement and learning

effects were indicated as were negative student' beliefs about the relationships between their effort and outcomes as consistent with earlier mindset research (Dweck & Reppucci, 1973; Dusek & Joseph, 1983).

Further, research in the Netherlands using the Implicit Association Tests indicated that teachers generally held differential expectations of students from different ethnic origins, that implicit prejudiced attitudes were responsible for these differential expectations as well as the ethnic achievement gap in their classrooms (van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010). These researchers asserted that teachers who held negative prejudiced attitudes appeared more predisposed to evaluate their ethnic minority students as being less intelligent and having less promising aspects for their school careers. Achievement differences were less pronounced in classrooms with teachers who were less prejudiced. In this study, an implicit measure of prejudiced attitudes of teachers proved to be a stronger predictor of teacher expectations and student achievement than an explicit measure of prejudiced attitudes (van der Bergh, et al., 2010).

Similar to the research based on the Implicit Association Tests, Cross, DeVaney, & Jones (2001) studied implicit biases related to vernacular dialects and intelligence, personality, social status, and ambition. They found that teachers drew conclusions based on dialects and ethnicity with white teachers regarding white speakers most favorably and black speakers least favorably. Given that white women comprised 84% of public school teachers in 2011, Cross and colleagues

(2011) warned that biases such as verbal nuances have the potential to snowball into teacher preconceptions that could negatively affect student grades, self-perceptions, and eventually lowered academic achievement and failure.

McKown and Weinstein (2002) also examined teacher expectancy with respect to student ethnicity. They conducted a study using a sample of 561 elementary school students and considered teacher expectations of over or under estimated achievement as compared to actual academic achievement. Results of the study found that African American children were more likely than Caucasian children to confirm teacher underestimates of ability and less likely to benefit from teacher overestimates of ability. The implicit biases and fixed mindsets of the teachers affected the expectations they held for students and thus had differential consequences for African American students in their classrooms.

Teacher perceptions and biases for black students have also been found to be affected by behavior, physical styles, or characteristics. For example, walking style demonstrated by black students resulted in perceptions by teachers of lower academic achievement, more aggression and increased likelihood of a need for special education (Neal, McCray, Webb-Johnson, & Bridgest, 2003). Through research on facial emotions, Hugenberg and Bodenhausen (2003) found that higher implicit bias was associated with a greater readiness to perceive anger in black faces suggesting that white teachers may incorrectly perceive black students as angry or aggressive which could then result in less connection to these students, less assistance offered or

increased likelihood of misidentifying these students as disabled or deviant. Related research into discrimination of Caribbean blacks and black Americans have validated that black youth, regardless of culture, continue to be recipients of discrimination in educational settings. This discrimination is often in the form of expression of beliefs, attitudes, and behavior that is more subtle. As previously noted, it surfaces in the forms of language such as the use of “other” or “those people” in reference to black students and can develop into biases and mindsets toward these students (Thomas, Caldwell, Faison & Jackson, 2009; Smith, et al., 2011).

Ferguson (2003) explored bias further and reported on a meta-analysis (Baron, et al., 1985) which found that teachers had higher expectations for white students in 9 of 16 studies addressing race and for black students in one study. Ferguson concluded that in some conditions, teachers held racially biased expectations suggesting that they not only believed certain stereotypes but also used them in an experimental setting. Teacher perceptions of students’ performance and expectations for future performance were generally considered accurate and once they were set, they did not change much over time, consistent with a fixed mindset perspective. Ferguson explored the lack of flexibility in terms of self-fulfilling expectations, students inability to change their class rank, and lack of opportunities or ineffective strategies for assisting students who were behind in improving their skills. Ferguson reported an overall decline in the percentage of survey respondents indicating that blacks have less in-born ability to learn, although, many respondents still indicated a belief that blacks and Hispanics were less

intelligent than whites (Ferguson, 2003). Although improved, these results reflect long-standing, fixed mindset views. In the context of expectations and perceptions, these views may lead to self-fulfilling prophecies or minimally, may maintain trends of the past including the black white achievement gap.

Self-fulfilling prophecies. Self-fulfilling prophecies are marked by teachers believing false information about students, acting on the information in ways that students can perceive and students responding in ways to confirm the expectations creating a recursive, fixed mindset cycle (Ferguson, 2003). That teacher perceptions of students' behavior is a significant component of the academic judgments has a long, entrenched history as can be seen by Bennett, Gottesman, Rock and Cerullo (1993) who reported on gender disparities in teacher perceptions of boys' academic abilities as compared to more well behaved girls and the bias thereby created. These biases can result in overrepresentation of boys in learning disability or other special education categories of impairment. Just as some studies have demonstrated that beginning of the school year teacher perceptions were lower for ability and academic skills for boys than for girls (Bennett et al., 1993), and for black students than for white students (Minor, 2014; Ready & Wright, 2011), other studies have shown greater effects of teacher expectations for African American students than for whites, for girls, and for students from low income families and have shown that these effects were cumulative (Ferguson, 2003).

Corroborating research found teacher perceptions of student efforts showed the greatest

black-white differences in the early elementary school years with teachers rating black students lower on questions of students caring about doing well, getting along with teachers and working hard at school. Teachers have tended to give black students lower ratings on these skills than white students even when other factors such as socioeconomic status, gender, age, family structure, test scores, and prior social behavior skills have been controlled (Covay & Carbonaro, 2010; Downey & Pribesh, 2004). In summary, social and behavioral skills, including work habits, motivations, effort and behavior, have been shown to influence teacher evaluations of students skills and abilities, particularly for students of color (Minor, 2014).

Lower expectations and fixed mindsets have also been demonstrated by teachers for the academic, social and behavioral performance for children of low socioeconomic status. Teacher perceptions of children from low SES families have indicated these children are seen as being less mature and having less well developed self-regulatory skills than their higher SES peers (Hauser-Cram, Sirin, & Stipek, 2003). Children who receive lower expectations may be the most highly affected by teacher expectations as teacher expectancy effects are stronger for stigmatized groups (Hauser-Cram, et al., 2003). Taken together, teacher perceptions of students' academic, social, and behavioral skills influence the development of students' academic self-image which can be long-lasting and impactful (Weinstein et al., 2004).

Teacher perceptions and classroom practices. Teacher behavior is shaped by their perceptions of students based on their characteristics. Teachers communicate their perceptions

and expectations through classroom interactions including questions posed to, and wait time allowed for, responses. When teachers pose, easy, less thought provoking questions, they reveal a fixed mindset for themselves and convey a fixed mindset message about their students. The message they send is that they do not believe the students are capable of handling more challenging material. When teachers provide shorter wait times for some students, the message is that the students are not worth the wait time and/or that the teacher is not confident that they will be able to formulate a solid response (Smith, et al., 2011). Teachers may give less feedback on a student's work or may be more negative and reflect criticism for students who have less well developed behavioral and academic skills versus more positive, encouraging feedback to those students who are less demanding of them (Good & Brophy, 1972; Weinstein, et al., 2004).

In a meta-analysis, Tenenbaum and Ruck (2007) found that teacher perceptions and biases affected student-teacher interactions including feedback on performance, expectations, goal setting and self-image. According to the meta-analysis, a consistent finding included that white students tended to receive more positive and neutral responses than did black students. Additional research supported the differences in feedback in terms of brevity, coaching, and fewer positives, for black students than for their white counterparts (Ferguson, 2003; Minor, 2013). Other observable teacher behaviors that served as examples of discrimination and fixed mindsets, included ignoring black students with raised hands, disproportionate discipline for late behavior, and more frequent searches for weapons and drugs. This was seen as a reflection of

teachers' lowered expectations for black students, racial stereotypes of cultural deprivation and "bad kids," learning deficiencies, and educational inferiority (Thomas, et al., 2009). Research studies also corroborated that teacher feedback on expectations, goal setting, and student performance is related to academic self-image, self-efficacy, and locus of control (Minor, 2014; Ryan & Shim, 2012). These findings suggest that teacher perceptions and feedback are related to, and may reflect ability/trait-based, fixed mindsets or growth oriented principles of the teacher.

Expectations and mindsets present a challenge for teachers and leaders with regard to classroom practices particularly for boys, especially boys of color. While beginning and end of the year academic assessment measures can mitigate negative expectations based on behavior, boys in particular, have demonstrated more active behavior patterns in the classroom (Minor, 2014). If this activity level leads to negative or low expectations for future academic achievement, and this information follows the student to the next teacher, there is risk of establishing and maintaining low expectations for achievement and behavior for students at the very beginning of their school careers. The research by Minor (2014) corroborates the difference in teacher perceptions of students' academic ability by student characteristics and substantiates the need for teacher awareness of their perceptions and the influences they have on student achievement trajectories. It also emphasizes the need for teacher perceptions to be influenced by growth mindsets and equitable expectations rather than by stereotypical student characteristics which often include or result in lower expectations.

Both Ferguson (2003) and Dweck (2006) point to Marva Collins' work and the Great Expectations initiative as evidence of success in responding to students with varying learning, behavioral, emotional, and environmental conditions by changing teacher mindsets and practices (Collins & Tamarkin, 1982, 1990). These practices include holding high expectations, appropriately challenging students, providing students with instructive feedback, assuring students that teachers care about them, and refusing to give up on them. Low expectations of students by colleagues were at times founded on low expectations for themselves and of their teaching abilities. In describing culturally relevant pedagogy, Ladson-Billings (1995) identified three criteria including that students must experience academic success, that students must develop and/or maintain cultural competence, and that students must develop a critical consciousness through which they challenge the status quo of the current social order. Ladson-Billings explained that teachers needed to attend to student academic needs and not just make them feel good. Culturally relevant teachers do so by demanding, reinforcing, and producing academic excellence in their students (Ladson-Billings, 1995). They utilize students' culture as vehicles for learning and expect students to engage the world and others critically. The belief that all students could and must succeed was described by Ladson-Billings described as fundamental. As a result of that belief, teachers have the responsibility of working to guarantee the success of each student.

Changing Mindsets and Expectations

The literature reviewed thus far has suggested a relationship exists between teacher mindsets, classroom practices, and learner outcomes, often with negative impacts for some learner groups over others (Minor, 2014; Tenenbaum & Ruck, 2007). Interventions that provoke a positive change in this relationship may provide an opportunity for improved outcomes (Collins & Tamarkin, 1982, 1990; Yeager & Walton, 2013). Low expectations and negative outcomes may be positively impacted by the establishment and maintenance of a growth mindset philosophy within the instructional staff as influenced by the school leadership. When people believe that prejudice can be changed, that it can be reduced through learning, confronting a prejudice thought or action is less devastating (Dweck, 2012). Researchers have documented that prejudice is malleable (Pettigrew & Tropp, 2006). The malleability of prejudice and teaching of growth mindset principles have direct implications for teaching and learning. The belief in the ability to change prejudice and fixed mindset ideology is important as the expectations vary for marginalized students and can result in self-fulfilling prophecies, continuing inequities in educational opportunities, and achievement gaps (Weinstein, Gregory, & Strambler, 2004). The need for increased achievement of all students is highlighted, in particular those that do not benefit from the privilege inherent in majority white schools.

The power of the teacher-student relationships, the interactions inherent in classrooms with lowered expectations, the implicit, entity based perceptions of intelligence that are

consistent with the normal distribution, put traditionally stigmatized students at risk (Weinstein, et al., 2004). Absent a basic belief in students' capacities to learn, to grow, to stretch, and to strengthen their neural pathways, no matter their background or condition, achievement is likely to continue to stagnate, particularly when expectations and beliefs belie negative beliefs in students' capacity. This appears as an inherently logical place to start when looking at student achievement needs related to racial, cultural, language, or disability barriers and could provide the basis for building improved student achievement. Fostering agency, self-efficacy, the premise of the malleability of intelligence and prejudice, in the context of a culture of motivation to learn, and in caring relationships has roots in evidence and may contribute to equity in classroom and school settings (Dweck, 2000; Weinstein, et al. 2004).

Teacher expectations and goal setting

Growth and fixed mindset principles apply to people as well as to traits and abilities. When a fixed mindset is in play, rapid, trait-based judgments of other individuals or groups are formed (Dweck, 2012; Chiu, Hong, & Dweck, 1997; Erdley & Dweck, 1993; Molden, Plaks, & Dweck, 2006; Levy, Stroessner, & Dweck, 1998; Levy & Dweck, 1999; Rydell, Hugenberg, Ray, & Mackie, 2007). When individuals with a fixed mindset label an individual or apply a stereotype to a group, information contrary to that label or stereotype has limited effects and tends to be rejected (Dweck, 2012; Erdley & Dweck, 1993; Plaks, Stroessner, Dweck, & Sherman, 2001). When people are operating from a growth mindset, they tend to understand

behavior more in terms of situations and psychological processes such as needs, beliefs, emotions and goals, rather than in terms of traits (Hong, 1994; Levy & Dweck, 1999; Molden, Plaks, & Dweck, 2006). Just as the fixed mindsets of learners' lead to setting limitations on learning, fixed mindsets and lowered expectations of teachers can lead to, perpetuate, or negatively impact mindsets of learners thereby setting limitations on goal achievement and learner self-efficacy.

Teacher beliefs. Early research on teachers' mindsets on the nature of abilities found that teachers who believed students' intelligence was fixed provided less support and encouragement for students to find solutions (Swann & Snyder, 1980). In contrast, those who believed ability to be more malleable, were more supportive and reported instructional goals that explicitly taught students how to problem solve. Additionally, Seibert (2006) and Stroscher (2003) found that the majority of teachers held a growth mindset, however, more veteran teachers were more likely to have fixed mindsets. Both studies also found positive correlations between growth mindsets and teacher self-efficacy (Seiber, 2006; Stroscher 2003).

Goal setting. As has been discussed throughout this review, teachers have a great impact on student learning and achievement (Tucker & Stronge, 2005; Hirsh, 2005). Teacher classroom expectations have been noted to impact student goal setting and help seeking. Goals are important in developing motivational systems associated with the way students define and evaluate success, process information, and regulate behavior (Butler, 2007; Molden & Dweck,

2000). When teachers reflect mastery based learning expectations, students' emphasis is on learning or understanding; achievement is likely to reflect effort based learning. Given these expectations, students are more likely to prefer challenging tasks, to consider difficulty as an indication of the need for further learning, and to respond to difficulty by seeking adaptive help and information that can support their learning (Butler, 2007; Ryan & Shim, 2012).

Teacher expectations that reflect performance goals are more likely to convey a message of competition, lead to completion of tasks without great effort, to help seeking from peers for expediency, and to avoidance of exposing inadequate ability as opposed to acquiring knowledge and skills. Student perceptions of their teacher's emphasis on mastery goals increases the likelihood of adopting personal mastery goals, feelings of efficacy about their work, use of higher level cognitive strategies, and overall positive feelings about school. Growth mindset orientations are reflected in both teacher and student actions and in the learning process when mastery goals are emphasized. Conversely, when students perceive teacher emphasis is on performance goals, students are more likely to adopt personal performance goals, use maladaptive strategies, engage in cheating behavior, and report negative feelings toward school (Ryan & Shim, 2012). These behaviors are consistent with fixed mindset orientations which de-emphasize the learning process.

Linking students' effort and strategy use with students' success was seen as necessary to students acquiring a high degree of motivation (Huebner, 2009). Huebner developed a

framework to link student success and develop increased self-worth. These links included setting specific, challenging, attainable, and proximal goals over setting long term, performance goals. In addition to criterion to assess progress, the links identify learning strategies, focus on learning, and emphasize attribution of success to the students' personal effort or strategy use. When failure occurs, the emphasis is on attributing the failure on a lack of proper strategy use rather than on a lack of intelligence. This framework is consistent with the development of growth mindsets among students.

Teacher influence on non-cognitive factors. In 2012, the Consortium on Chicago School Research produced a research study which identified social skills, academic behaviors, academic mindsets (sense of belonging, growth mindset, and sense of efficacy), learning strategies (goal setting), and academic perseverance as non-cognitive factors related to academic performance. Tentative conclusions from this study indicated that these factors were related to academic performance, were malleable, could be affected by classroom practices, and could narrow gaps in achievement for gender or race/ethnicity. These conclusions were supported in a recent study by Ferguson, Phillips, Rowley, and Friedlander (2015). Ferguson and colleagues studied the achievement gap by reviewing the influence of teachers on the development of noncognitive factors, primarily agency, as key foundational components in fostering student development. They used data from over 300,000 Tripod student surveys administered in more than 16,000 sixth to ninth grade classrooms, 490 schools, 26 districts, 14 states and in all major

regions of the United States in the 2013-14 school year.

The Ferguson study looked at the influence of teaching emotions, motivations, mindsets, and behaviors associated with agency (capacity and propensity to take purposeful initiative vs. helplessness). Students with high levels of agency, which included growth mindsets, sought meaning and acted with purpose to achieve. Seven research based teacher components that influence learning were identified and included providing informative feedback and persistence when experiencing difficulty. The emotions, motivations, and mindsets that supported growth of agency included the components of effort, help seeking, mastery orientation, sense of efficacy, growth mindset, future orientation and disengagement in behaviors of faking effort, generally not trying, giving up if work is hard, and avoiding help. These behaviors are reflective of growth mindset principles in the case of the engagement behaviors and fixed mindsets relative to the disengagement behavior descriptions.

Students' emotions, motivations, mindsets and agency expression were predicted by what teachers asked of them (academic and behavioral press) as well as by what teachers gave them (social and academic support). Ferguson (2015) found that agency dampers occurred when there were imbalances between what teachers gave as supports versus what they asked of students. For example, coddling was seen as depressing student conduct and academic persistence. Conferring without a clear purpose undermined student effort and reduced time on task; and clearing up confusion could diminish student incentive to diagnose and correct their own misunderstandings.

Alternately, when teachers challenged students to think more rigorously, they showed greater mastery orientation, increased effort, increased growth mindset, demonstrated greater conscientiousness, and held higher future aspirations.

The Ferguson study (2015), although briefly summarized here, consolidated many of the concepts addressed previously in separate studies regarding mindsets including teacher responsiveness, feedback, persistence, diligence, goal setting and help seeking, and mastery orientation vs. performance emphasis. Skills indicated as most critical to agency included academic skills, conscientiousness, growth mindset, and future orientation. A growth mindset was described as a foundation for agency as it supports the sense of possibility on which a sense of agency depends. The belief that needed skills and abilities can be developed, even if presently lacking, helps to support the expressions of agency that are often necessary for achievement and for ambitious aspirations (Ferguson, et al., 2015).

Interventions to Increase Growth Mindsets

According to the literature reviewed, the ability to change mindsets of learners and teachers may be central to changing classroom instructional practices (Swann & Snyder, 1980; Seibert, 2006; Stroscher, 2006). Given this premise, it is important to review the literature related to changing mindsets. There have been some promising strategies indicated in the educational field suggestive of shifting the mindsets of students from fixed mindsets to growth oriented mindsets. Interventions that have demonstrated some success in teaching and encouraging

growth mindsets in students have included workshops, mentoring programs and pen pal programs. (Snipes, Fancsali & Stoker, 2012). Some computer based or curriculum based interventions focus on teaching students about the interplay of neurology and learning. They teach students about brain development and strengthening of neural pathways through practice and learning tasks. Evidence supporting these interventions indicate that tools and practices that teach students that intelligence is malleable can improve their academic mindset and affect academic achievement.

Intervention via feedback. Interventions confirmed Dweck's views on the impact of praise on entity vs. incremental perspectives on intelligence. Praise for effort, along with the incremental mindset, resulted in positive intervention outcomes. Research has provided evidence demonstrating that when minority students were taught to view feedback as a sign of high standards and symbolic of the teacher's belief in their ability to reach the standards, they no longer perceived bias as an interfering factor and increased motivation to the task (Cohen & Steele, 2002; Cohen, Steele & Ross, 1999; Yeager et al., 2012). These interventions were noted as reducing black-white achievement gaps. Similarly, increasing their perceptions of their abilities or self-efficacy, was found to be key to increasing female participation in science and math oriented careers. Strategies associated with self-efficacy included teaching students that academic abilities are not fixed but can be improved upon, providing exposure to female role models who have succeeded in math or science fields, and informational feedback (specific,

information, praise for effort, error identification, and use of strategies) (Hueber, 2009).

Social belonging interventions. Research in social psychology indicates positive outcomes for interventions that change students' behavior by understanding and targeting their experience in school from the perspective of the student and by deploying powerful, indirect or "stealthy" persuasive tactics to deliver the treatment (Yeager & Walton, 2011). Although students were actively engaged in instructional interventions, they were not informed that they were the targets of the intervention. This indirect approach was hypothesized as more effective than overt strategies as it did not portray control over the participants or stigmatize them as being in need of help. The lack of a controlling influence may have minimized the resistance to the interventions and the indirect approach allowed students to take credit for their success rather than attributing positive outcomes to the intervention (Yeager & Watson, 2011).

This research indicated that self-attributions, as related to explanations of cause and effect, shaped individuals' responses and subsequent behavior. Yeager and Walton (2011) found that stereotype threats to learning could be assisted by self-affirmation interventions, particularly for minority populations. Interventions that convey positive messages about belonging and improvement can require limited time and follow up and have lasting effects; effects as long as 3 years have been noted (Yeager, et al., 2013). Values affirmation interventions can have positive social and academic effects. They also reinforce the need to shift mindsets and perceptions to more positive, affirming mental states. These findings yield significant implications for

successfully implementing growth mindset interventions in the future, particularly for adult learners such as teachers.

Psychological interventions also work by tapping into self-reinforcing or recursive processes that sustain the effects of early interventions (Garcia & Cohen, 2012; Yeager & Walton, 2011). Strategies such as generating and advocating persuasive messages to a receptive audience serve as powerful means of persuasion (for example, assignments of telling a younger student why the brain can grow, self-generating reasons for successfully meeting important values in their lives) (Yeager, et al., 2012). Studies have also demonstrated the benefit of counteracting stereotypes by teaching students to conceptualize their intellectual abilities as expandable rather than fixed, that their minds, like muscles, can be strengthened and expanded as consistent with Dweck's theory and negative responses to stereotypes diminished (Aronson, 2004; Aronson, et al., 2002). Good, Aronson, and Inzlicht (2003) demonstrated positive results related to increased scores on standardized tests, enjoyment of school, and increased GPAs as a result of these strategies and interventions.

Professional development. Professional development in schools regarding feedback, grading practices, and policies was recognized as necessary to increase the focus on, and implementation of, improved feedback to students. In addition, professional development related to increasing achievement for all students, the effects of stereotypes and teaching to meet the needs of diverse student populations are all necessary to more adequately prepare classroom

teachers to close gaps and offer equitable education to all students. In a recent study in which 600 K-12 teachers were surveyed, nearly 98% agreed that using growth mindsets in the classroom would empower student learning and improve the quality of their instruction; however, only 20% believed they were good at fostering growth mindsets in their students (Yettick, Lloyd, Harwin, Reimer, & Swanson, 2016). Eighty-five percent of teachers reported a desire for more professional development related to growth mindsets.

Several models exist for effective professional development including Haycock's Strengthening Teaching, Singleton's Courageous Conversations, Ferguson's Tripod Project, and Sternin's Positive Deviance Model (Hirsh, 2005). Ferguson's model most closely reflects the critical components outlined in this literature review regarding teacher efficacy, mindsets, and social and cognitive learning theories and interventions. Ferguson expressed concern about teacher's beliefs in the capacity of students to learn and in their capacity to teach. These beliefs may be influenced by their own feelings of competence and their capacity to teach their students. His model focuses on content, pedagogy and relationships (Ferguson, 2002). Including growth mindset and the malleability of prejudice in professional development may increase the effectiveness of professional development designed to reduce prejudice and increase self-efficacy (Dweck, 2012).

Developing teacher mindsets

Although the computer-based or curriculum interventions can be applied to students

universally with some success and minimal costs, the prospective mindset of the teacher may hold influence on learning and achievement. Interventions that have shown success for students may hold promise for professional development in teachers. For example, providing brief, targeted interventions that result in increasing teachers' sense of self-efficacy without indicating a need for help may hold potential for leaders in developing growth mindset oriented teachers (Yeager, et al., 2011). In addition, the researchers suggest approaches that support positive development, such as creating classroom environments that facilitate a growth mindset and organizational structures that foster a sense of identity and community. They noted potential challenges in obtaining buy in from teachers for new initiatives that require even minor changes in environments without strong institutional leadership and in cultures in which teachers hold negative preconceptions and fixed mindsets about students or their families. Given this suggestion of teacher influence, it is questionable whether student growth mindsets can be well developed even given direct instruction in the absence of teacher buy in. This reflects the need for teachers to develop a growth mindset for all learners and the need for strong leadership to support teacher development.

Considering the research into why professional development in areas such as differentiation leads to poor implementation of differentiation strategies can provide some insights into effective/ineffective methods of professional development and poor change outcomes. Initial research into this area has pointed to three major reasons why differentiating

instruction has failed to become common practice in classrooms. These included a lack of teacher confidence, dilution of teacher efficacy, inconsistent on-going professional development and reliance on personal perseverance (Hawkins, 2009). Among the important elements for success, is giving teachers permission to fail and to take risks, to understand and be comfortable with the non-linear process of adaptation and change. Teachers need courage to engage in research based practices. As was true for students, teacher efficacy, or a teacher's confidence in his/her ability to promote student learning, was an identified characteristic related to student achievement.

Leadership

The ability to encourage shifts in effective instructional practices, the leadership practices to support those shifts and to develop cultures that support improved student learning addresses the third major purpose of this paper. The focus of the literature review will now turn to the relationship between teacher mindsets, efficacy, and leadership, which may provide insight into strategies that support developing improved classroom practices and mindsets that support them.

Several principles were identified as important in impacting teacher efficacy and the likelihood of teachers implementing changes in their classrooms. These would seem likely areas to enhance to ensure increases in growth mindset practices. These principles included a sense of personal accomplishment, positive and realistic expectations for student behavior and achievement (including an expectation that all students will progress toward their goals),

personal responsibility for student learning (including self-reflection and accountability), strategies for achieving the objectives, planning for learning through purposeful, challenging, activities with goal-setting and identified strategies, positive affect (feeling good about teaching as a profession, about self, and about students), a sense of control (belief of influence on student learning and motivation), a sense of common teacher-student goals, and democratic decision-making (Hawkins, 2009; Yeager, et al., 2013).

Teacher leadership. More recently, effective leadership models have focused on increasing teacher leadership to improve instructional practices and increase student learning. Teacher leadership potential and enculturation may mirror patterns of self-efficacy and growth mindset evident in students as learners and teachers in their instructional roles/content areas. Teacher leadership has been defined as the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities, to improve teaching and learning practices with the aim of increased student learning and achievement (Your-Barr & Duke, 2004; Hunzicker, 2013).

Hunzicker (2013) identified three factors that led to the development of teacher leadership. These included exposure to research based practices, increased teacher self-efficacy, and serving beyond the classroom. Gradual accumulation of professional experiences, job embedded collaboration, and professional development led teachers toward increased leadership roles related to student focused concerns. As teachers pursued leadership opportunities and roles,

self-efficacy increased, which led to the development of leadership skills and had a recursive, cyclical effect. In addition to these factors, teacher leadership dispositions were described as including a deep commitment to student learning, optimism and enthusiasm, open-mindedness and humility, courage and willingness to take risks, confidence and decisiveness, tolerance for ambiguity, creativity and flexibility, perseverance and willingness to work hard (Danielson, 2006). These dispositions were likely to be seen by application of teacher research, learning, and engagement in reflective discussions about student learning related to their belief that all students can learn. The ability of these teachers to adjust their feelings, thoughts, and behaviors despite facing challenges was seen as strengthening relationships, building on self-efficacy and a willingness to persevere (Hunzicker, 2013). These elements of teacher self-efficacy are consistent with the growth mindset principles for students, and are reflective of growth mindsets on the part of teachers.

Collective efficacy. Collective efficacy reflects trust and confidence that teachers, parents, and students can work together to improve student learning and maintain an academic focus. It is a faculty's belief that it can exert a major impact on student learning and that a school's press for students' success is mutually reinforcing in encouraging achievement and student success. Collective responsibility is seen as an outcome of collective efficacy (Walstrom & Louis, 2008). Collective efficacy has been cited as a stronger predictor of achievement than socioeconomic status (Bandura, 1993; Goddard, Hoy, & Woolfolk, 2000; Lee, Dedrick, &

Smith, 1991). Principal support of collective efficacy is critical and is accomplished by addressing in-school problems within their control, including supporting student discipline policies and creating structures for shared decision making (Hipp, 1996). Leadership practices that provide for shared power create greater motivation, increased trust and risk-taking, and build a sense of community and efficacy. Peer relationships among adults may have a greater impact on classroom practices than leadership alone (Walstrom & Louis, 2008). Angelle and Teague (2014) also found a clear, strong and positive relationship between collective efficacy and the extent of teacher leadership.

Principal leadership

Principal leadership effects have been modest relative to achievement directly but can have an impact on teacher efficacy either individually or collectively (Minckler, 2014). Leadership affected preconditions such as opportunity, motivation and ability to establish the environment under which teachers can thrive. Principals/leaders are crucial in developing the physical and cultural structures for teachers to work together. Academic press, which includes leadership practices of academic emphasis, resource support, and principal influence, was supported in the research as were leadership effects on motivation through encouragement of high performance, provision of vision and inspiration, and provision of intellectual stimulation (Minckler, 2014). Urick and Bowers (2014) also found support for the influence of a principal on the school environment to help build and monitor a positive academic climate focusing on high

student/teacher morale and academic press as a means to increase student achievement.

Transformational and instructional leadership. Transformational leadership, as defined by Marks and Printy (2003), provides intellectual direction and aims to innovate within an organization while empowering and supporting teachers as partners in the decision making. Instructional leadership was defined as a replacement of a hierarchical and procedural models with shared instructional leadership in which principals and teachers actively collaborate on curriculum, instruction, and assessment. Responsibilities for staff and curricular development and supervision of instructional tasks are shared in instructional leadership models. As defined in this way, principals are not instructional leaders themselves but are the *leaders of instructional leaders*. This instructional leadership view varied from the historically, hierarchical instructional leadership in which the principal was the primary source of expertise. Responsibility for supervising instruction, coordinating the curriculum, and monitoring student progress belonged solely to the principal in traditional instructional leadership.

In shared instructional leadership, principals invest in teachers and maintain the instructional program when teachers assume leadership roles, collaborate and interact around school initiatives and reforms, and encourage one another to learn together and to improve their practices. In shared leadership models, principals are facilitators of teacher growth and both principals and teachers are engaged in leadership for instruction. Transformational leaders work in collaboration with teachers to practice integrated leadership (Marks & Printy, 2003). Marks

and Printy (2003) found higher pedagogical quality and increased academic achievement in schools with integrated leadership. Although they indicated findings as suggestive only, they concluded that strong transformational leadership is essential.

Transformational leadership with respect to growth mindset principals and the effects on teachers in high poverty schools was a specific topic of focus for Teal (2012). In this study, principals who demonstrated growth mindsets believed that positive change could occur through focused, collaborative effort affiliated with the growth mindset theory. Teal found that barriers to success could be overcome with effort although, the negative perceptions of fixed mindset teachers were relatively durable and daunting to overcome. Teal described emergent themes in his research including the “futility of fixed mindset thinking” which described teachers who did not believe in the ability of economically disadvantaged students to grow their intelligence with effort.

Criticisms of Growth Mindset

Growth mindset has recently received criticism as being oversimplified. Alfie Kohn writes concerns over the growth mindset trend as problematic as it takes the focus from asking whether the curriculum is meaningful, whether the pedagogy is thoughtful, or whether the assessment of students’ learning is authentic (Kohn, 2015). Kohn suggests there is risk to an overemphasis on praise, on disingenuous praise, or praise for ‘jumping through hoops’ as it may lead students to faulty conclusions, an over-reliance on praise for effort and an under-reliance on

students' self-judgments. Students may misperceive praise for effort in a fixed mindset manner such as viewing praise for effort as occurring when teachers regard them as having limited ability. Teachers must exercise caution in overpraising effort so that students do not begin to rely on praise as an external control.

Similar concerns were indicated for a dilution effect of praise on learning, with praise leading to lower engagement and effort (Kessels, Warnet, Holle & Hannover, 2008). The effects of praise are more notably critical when students begin to fail or not understand. Almost half of teacher feedback was categorized as praise and when praise was seen as premature or gratuitous, students' confusion increased and revisions decreased. Learned helplessness and dependence on praise were concerns and criticisms (Hyland & Hyland, 2006; Skipper & Douglas, 2011).

This criticism of the emphasis on feedback has been addressed by Dweck (2015) who asserts that empty praise, praise without meaning or strategy use is not reflective of growth mindsets. Teachers need not just provide praise for effort, but they must also teach students about the malleability of their intelligence and provide meaningful feedback, including formative feedback, clarification, and strategy use, so that students learn to use their own judgment without becoming overly reliant on praise from an external source. As with any feedback, the goal is to remain focused on the learning process and not on gaining the praise itself.

In addition to criticism regarding the reliance on praise and feedback, Hattie (2011, 2015) studied effects of various influences on student learning. Hattie ranked 195 influences that are

related to learning outcomes from very positive effects to very negative effects. Hattie found that the average effect size of all the interventions he studied was 0.40, which became the ‘hinge point’ for determining the success of influences. According to his ranking, the effect size for growth mindsets was at a .19, well below the average. DeWitt (2015) notes that just having an influence with a low effect size does not mean the intervention should not be implemented or continued.

Both DeWitt and Hattie agree that the likely reason for the low effect size is due to adults with fixed mindsets who continue to treat students accordingly. They purport that the currently low effect size will continue to stay low unless practices change in the classroom. A broad example to that point included teachers putting students in ability groups, students getting scores on low scores on high stakes tests leading to a higher likelihood of labeling them, and placing students in interventions or services. This pattern creates or continues a cycle which contributes to and reinforces their fixed mindsets. According to DeWitt, students are conditioned to have a fixed mindset because the educators do. When students who struggle are treated like they will always struggle, there is risk of creating self-fulfilling prophecies (DeWitt, 2015). DeWitt’s comments regarding struggling students also apply to students with disabilities and students of color who are particularly susceptible to self-fulfilling prophecies and who traditionally benefit less from the current educational system.

Growth mindset principles should also not be construed as a replacement for instructional

staff and educational leaders in examination of individual cultural, racial, gender, and ability/disability biases but rather as an adjunct. Bias examination requires examining and addressing individual beliefs and providing new content, practice and follow-up (Hirsch, 2005). Caution should be exercised to avoid blaming the victim and conveying deficit thinking in providing feedback. As a part of this examination, adjustments are needed to ensure educators shift their mindsets and hold high expectations for all students and provide informative feedback as consistent with growth mindset.

Growth mindsets share some characteristics with those of grit, including an emphasis on goal setting and persistence. Both have received much attention in the literature and share not only enthusiasm but also criticisms. Grit has been defined as a noncognitive trait and as perseverance and passion for long-term goals by Duckworth, Peterson, Matthews, & Kelly (2007). These author's purport that achievement is the product of talent and effort, with effort defined as the function of the intensity, direction, and duration of one's exertions toward a goal. Duckworth has indicated that growth mindsets may serve as a basis for the development of grit. Crede', Tynan, and Harms (2017) summarized the criticisms of grit through a meta-analysis of grit literature based on 584 effect sizes, from 88 independent samples, with a particular focus on the structure of grit and the relation with performance, retention, conscientiousness, cognitive ability, and demographic variables. The results suggested that interventions that enhance grit showed only weak effects on performance and success, the construct validity of grit was in

question, and the primary utility of the grit may be in the perseverance characteristic. Criticisms of both growth mindset and grit include a concern that both promote an overemphasis on hope and perhaps downplay or fail to recognize conditions or situations of consistent challenge in circumstances such as that of poverty and lack of opportunity (Stitzlein, 2018).

While these questions continue to encourage research regarding characteristics of growth mindset and grit that provide the greatest impact on achievement of academic, behavioral, and social goals for students, the emphasis on developing these characteristics in the adults in the educational arena to promote these characteristics continues to receive less attention. A study by Robertson-Kraft and Duckworth (2014), however, addressed identification of traits of grit in hiring teachers that has potential implications for practice. Results of their study indicated that those teachers who were higher on grit characteristics outperformed their less ‘gritty’ colleagues and were less likely to leave their classrooms midyear. No other variables in the study predicted either effectiveness or retention. According to Robertson-Kraft and Duckworth, the findings not only contribute to a better understanding of what leads some novice teachers to outperform others and remain committed to the profession, but also have implications for recruitment and development of teachers. The implications of this study confirm the gaps in research related to the development of teacher mindsets and grit as well as the potential promise for pursuing this avenue of research.

Summary of Literature

This literature review revealed broad implications of the growth mindset on student learning. Given that individual learning is significantly influenced by one's mindset, then encouraging teachers to instill a growth mindset in their students logically follows. This perspective requires teachers to develop and maintain a growth mindset and for school leaders to advance a growth mindset among staff as well. If principals, central office administrators, and other school leaders can consistently influence a growth mindset in principals, teachers, and support personnel and sustain that mindset over time, achievement in any educational realm (academic, behavioral, social) and for all students may be increased and thus, gaps in achievement diminished. As can be seen by the research reviewed, growth mindset principles are incompatible with the fixed mindsets reflected in the deficit ideologies pervasive in current intervention structures. Promoting growth mindsets among educators has direct implications relevant to reversing deficit thinking among educators, which may have significant effects for the students across demographic groups who are receiving tiered interventions.

The significant impact of teachers on learner mindsets has been asserted throughout the literature reviewed and historically, by Good (1987) in studying teacher expectations, as has the impact on their own development, self-efficacy and leadership potential. Given that impact, teachers need to be encouraged to reflect on their own mindsets, how their mindsets are manifested in the classroom, the influence on their behaviors and expectations for students, and

how their beliefs interact with students with either fixed or growth mindsets. Teachers can determine their own effort, intelligence, resilience, and perseverance and enter their classrooms embracing a growth mindset for themselves and with full or increased awareness of the mindsets of their students in order to help all students learn and to change the classroom from a stage to a learning forum (Jacobson, 2013).

Research suggests that the leadership capacity of teachers with growth mindsets has potential to change the culture and practices of other teachers. Building and district leadership may have the greatest impact on student achievement by encouraging these teacher leaders to influence their peers in addressing their mindsets within their collaborative communities. Leaders who cultivate efficacy, encourage teachers to have a growth mindset for their students, and who view mindsets as a lens through which to see student learning, may afford educators an opportunity to shape learners who thrive on challenges, who learn from their mistakes, and who continue to grow academically and socially.

Research suggests that targeting teacher expectations and behaviors that contribute to underachieving trajectories needs to begin early given the research related to the predictive nature of teacher judgments of student cognitive ability and school achievement in high school and beyond (Alvidrez & Weinstein, 1999). Professional development for teachers to address these expectations needs to include effective feedback, differentiation, agency, and goal setting strategies, as well as research and information on fixed and growth mindsets, and the malleability

of intelligence and bias for their learners and for themselves. Leaders will need to provide not only the professional development, but also the conditions within the buildings and schools to increase teacher efficacy and collective efficacy, including establishing coping structures to enable opportunities to build on and demonstrate efficacy in new roles (Angelle & Teague, 2014). Leaders will need to provide opportunities for job embedded collaboration, as well as opportunities to engage in reflective learning, to examine implicit and structural biases, and to consider the impacts of their expectations on their students, especially with regard to students with disabilities, those who are living in poverty, or are from varied racial, ethnic, and/or linguistic backgrounds. Leaders will need to empower teachers to lead and share mastery experiences within these areas with their colleagues as a way to build collective efficacy (Angelle & Teague, 2014).

Much of the current research is focused on expanding the populations of focus that may benefit from growth mindset strategies and expanding and specifying the tool kits for teachers for improved classroom practices. Recent research in Chile found growth mindset to be a strong predictor of achievement exhibiting a positive relationship with achievement across all of the socioeconomic strata (Claro, Paunesku & Dweck, 2016). Students from lower-income families were less likely to hold a growth mindset than their wealthier peers, but those who did, were buffered against some of the negative effects of poverty on achievement. These results suggest that students' mindsets may have a mitigating effect on economic disadvantage on a systemic

level.

Blog sites and educational programs such as PERTS, Project for Education Research, (Beaubien, Stahl, Herter & Paunesku, 2016) provide guidance on implementation of growth mindset practices in schools and professional development. Strategies aimed at instructional leaders include modeling growth mindsets by making growth and learning visible, using influence in a purposeful and explicit way, coaching, providing practice and opportunities for people to grow together, and not giving up on anyone (Diehl, 2016). These programs and recommendations hold promise, however, research is needed to corroborate effects and to more clearly articulate the role of leadership in instilling and sustaining growth mindsets among instructional staff. This role of leadership and the effective leadership practices in developing growth mindsets appears to be understudied and deserving of further empirical exploration. My proposed study will address this gap.

Chapter 3

Methodology

In this chapter, I will outline the research methods, including context, sample, data collection, paradigmatic orientation, ethical considerations, and limitations of the proposed study. To address my question, “In what ways do school leaders support the development of growth mindsets in teachers to benefit diverse student populations?” I employed qualitative methods. According to Creswell (2013),

“Qualitative research begins with assumptions and the use of interpretive theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collective of data in a natural setting sensitive to the people and places under study, and data analysis that is both inductive and deductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the research, a complex description and interpretation of the problem and its contribution to the literature or a call for change.” (p. 44)

Qualitative research allows for the participants voices to be heard in the natural context of the issue. Qualitative research aims toward deeper understandings of the processes that people experience, their responses and the context of their responses including the thoughts and behaviors that governed their responses (Creswell, 2013).

A qualitative approach is appropriate for this research because the issue needs to be explored in the natural settings of school environments and information gathered directly through observations and face to face interactions with leaders, both administrative leaders and teacher leaders. My focus is on discovering and understanding the experiences, perspectives, and thoughts of the participants and exploring their meaning, purpose, and reality (Hiatt, 1986). Denzin and Lincoln (2005) describe this as a situated activity that locates the observer in the world and consists of a set of interpretive, material practices that make the world visible and transform it into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self (Denzin & Lincoln, 2005). Qualitative research involves an interpretive, naturalistic approach to the world, making sense of and interpreting phenomena in terms of the meanings people bring to them. While a complex, detailed understanding of the issue is needed, the variables cannot be easily measured quantitatively: a measure of frequency of events/data is not needed, rather quality and texture are the focus of my proposed study (Kilbourn, 2006).

Research Design

I used a collective case study approach, as this methodology allowed for the study of cases within real-life, contemporary, contexts in bounded systems over time through detailed, in-depth data collection involving multiple sources of information (Creswell, 2007; Denzin & Lincoln, 2005; Merriam, 1998; Yin, 2009). The unit of study for each case was an individual school and the leadership structure within that school (Creswell, 2013).

I gained some methodological insights from Teal (2012), who considered the effects of growth mindset leadership in high growth, low socioeconomic schools that had recently

experienced an increase in economically disadvantaged students. Teal conducted a case study in which he examined three schools that had seen increases of at least eight percent of low socioeconomic status. Teal found growth mindset principals to have an impact on the culture of the building and in collaborating with teachers to develop growth mindsets. Teal noted that teachers who believed that a student's socioeconomic background was a pre-determinant to their success in school (fixed mindset) likely felt ineffective in teaching these students, thereby, perpetuated low student achievement. This suggested that teacher efficacy was also related to teacher mindsets. The ability of the growth mindset principal to effect changes in teacher efficacy and mindsets was mixed and included a variety of teacher (i.e. level of experience) and student variables (i.e. socioeconomic status). The results were suggestive of a need for further study, both exploratory and with respect to transferability.

My research review suggested that these fixed mindsets of instructional staff would also occur with and impact other populations in addition to the low SES students, such as students with disabilities and students who are ethnically, racially, and culturally diverse and who are also often disproportionately identified as having a disability. My case study design primarily included interviews with teachers, teacher leaders/instructional coaches, and principals. The interview participants were asked to complete a growth mindset assessment (Brock & Hundley, 2016) to assess their overall mindset orientation. This provided a baseline measure of individual mindsets and data for comparison to interview data and observations as a method of triangulating and validating perspectives. Reviews of materials, newsletters, school videos, and observations also informed the study. The observations and document data also served to validate the data obtained from the interviews. The triangulation of the data through interviews, observations, documents provided a measure of trustworthiness and depth to the research. Additionally,

interview participants were provided a summary of the abstract, methods, and findings, as well as an opportunity to provide inquiries or feedback. Although, participants were not provided with individual transcript data, this sharing of the research summary data served as a member check for verification of the data.

Context

The context of my case study was three public schools with leaders who were identified by others as espousing growth mindsets and advancing growth mindsets in their respective schools. Growth mindsets were either an overt or underlying element of each school as part of addressing achievement and opportunity gaps, meeting building and district goals, or as a feature of their individualized learning platforms. The sites were located in or near larger metropolitan areas in a Midwestern state which afforded the researcher the opportunity to consider diversity of race, ethnicity, language, and disability status within the student body.

The case studies provided opportunities to look at data from schools with varied demographics, organizational structures, and leadership styles. Although each case was unique in its specific characteristics, some similarities existed which allowed for cross case comparisons. I sought to provide a thick, rich description of the cases, detailing the settings, the specific populations within them, the participants, and the themes that emerged. (Geertz, C. 1973). The rich descriptions will provide sufficient details and interconnections to allow the reader to determine whether shared characteristics exist such that the findings can be transferred to other contexts (Erlandson, et al., 1993; Lincoln & Guba, 1985; Merriam, 1988). The rich description will allow the reader to determine the transferability of the results to other contexts (Lincoln & Guba, 1985).

Cases

I included three public schools in my study which were selected through purposeful sampling. Initially, the school selections were to be determined by self-identification of growth mindset practices through publications and conferences, through networking of organizations such as the state principals' associations, Directors of Student Services organizations, and Advanced Learner groups as well as by word of mouth references from colleagues and their affiliated networks. Recommendations obtained through professional networks were only partially successful in leading to the schools included in the study. Some school sites opted out as they did not feel that they had sufficiently addressed growth mindsets in their schools to be included in the study. Some simply never responded. Only one of the school sites included in the study was obtained by virtue of a professional reference. The other two school sites were obtained by internet searches of school sites that referenced growth mindset in Board of Education meetings, newsletters, etc. Once located by search, Directors of Instruction identified specific principals to be contacted.

The selection of schools was to be based, in part, on a leadership requirement for principals to espouse growth mindsets and who were focused on developing growth mindset cultures within their buildings as part of an overall plan to increase achievement for various demographic groups. In addition to principals, educational coaches, lead teachers, and leadership teams who support the principal in closing achievement gaps, coaches or teachers who provide professional development for instructional staff were interviewed to provide additional data sources. Teachers within the school sites also provided insights into the effective leadership practices. A growth mindset orientation was anticipated for the individual participants. All interview participants were given a brief, 10 item, growth mindset questionnaire to assess and

verify the interviewees' global mindsets. (See Appendix A for the growth mindset questionnaire.) All respondents endorsed majority of growth mindset items though most were not at 100% of the items.

The schools selected for study each had a high composition of diversity within the student body (over 20% students identified as racial and ethnic minority status (non-white)) or with lower racial diversity, but higher students with economic adversity or students with disabilities. Each of the schools in the study had significantly high numbers of students who fell within the economically disadvantaged category ranging from 42 to over 61%. Although each of the schools recognized previous achievement/opportunity gaps for one or more demographic populations, two of the schools boasted significant progress across groups with scores on state testing improving and meeting or exceeding expectations. The third school is an alternate achievement school that reported increased achievement and engagement outside of the state testing parameters. Achievement data for students with varied racial, ethnic, language, and economic backgrounds, students with disabilities and their white peers have been reviewed by the school leadership and leadership teams. Achievement gaps and gains continue to be identified, monitored, and targeted for school improvement. Triangulation of this data occurred via the state education department's data website.

Data Collection

Data was collected primarily through semi-structured interviews, allowing me to learn about principal, instructional coach/teacher leader, and teacher mindsets, how these have been shaped, if they have changed and what influenced the change in their view. The impact on classroom practices, including goal setting and feedback, for both students and teachers was

obtained by both interviews and observations in the field. Principal/leader feedback to teachers and professional development and the effects would similarly be observed as well as addressed through interviews.

As part of the field experience and as described by Denzin and Lincoln (1994), the interview was shaped by the relationship between the participants and the interviewer, through actions, questions, and responses, which in turn shaped the ways the participants responded and gave accounts of their experiences. Notes were taken and recordings made of the interviews. The data collected from the interviews was transcribed from notes and audio recordings of the interviews.

Interviews

Interview protocols were semi-structured in design and focused on understanding the central issue of the study (see Appendices C, D, and E for the Interview protocols for Principals, teacher leaders and teachers). The questions were focused on the actions of the principal that directly support the development of growth mindsets among the staff, the actions that promote a culture of growth mindsets, the actions that promote teacher efficacy to shift the culture toward growth mindsets, and the educator actions that are specifically targeted to address achievement gaps of diverse demographic student groups. The interviews were primarily conducted in a face-to-face manner, however, on two occasions interviews were conducted via telephone communication due to a scheduling conflict in the case of one and additional time needed to complete the interview in the case of the other. Interviews were recorded and transcribed using Sonix Inc. Additional information was obtained via follow up interviews or clarifying interviews through email or other electronic media, and via face-to-face contact.

Observations

Creswell (2013) notes that observations are a key tool for collecting data in qualitative research and describes observation as the act of noting a phenomenon, based on the research purpose and questions, in the field setting. This included observations of the physical setting, participants, activities, interactions, conversations, and the researcher's own behavior. I conducted observations primarily as a nonparticipant, although, limited observations as a participant occurred due to incidental interactions in the setting. As a non-participant researcher, I was an outsider to the group under study, watching and taking field notes from a distance. In this way, I was able to record data without direct involvement with the school activity or people (Creswell, 2013). I gathered data through observations of professional development meetings and leadership/building team meetings as well incidentally, as I visited classrooms and moved throughout the buildings to conduct the interviews. Both formal and informal observations were intended to gather information to validate or call into question the data gathered via the interviews and the documents. The data gained served to validate the information provided by the participants. I gathered field notes of these observer experiences through use of an observation protocol (Observation protocol can be found in Appendix B). The protocol includes both descriptive and reflective notes including personal reflections, insights, ideas, confusions, initial interpretations, and epiphanies.

Documents

The case study was primarily based on interview data and information from observation protocols. In addition to the observations and interviews, other documents were collected from the field including photographs, public, and physical documents, emails, phone messages, and

artifacts from school websites for the construction of field texts that represent aspects of the field experience. A review of relevant school documents was completed, including but not limited to, mission and vision statements, school, and classroom rules, bulletin boards, goals and mottos, memos, meeting minutes, and school themes. Physical artifacts such as professional development work samples were also included. These documents were reviewed as a reflection of, and a comparison to, the stated and observed data and served to triangulate the data.

Data Analysis

I recorded the data obtained through interviews and transcribed them via Sonix, an on-line application designed for transcription. As I reviewed the transcripts, I analyzed the data to answer my question, “In what ways do school leaders support the development of growth mindsets in teachers to benefit diverse students?” The data was organized according to specific actions, methods and strategies the leadership has taken and how those strategies were employed within each site. I also looked across cases and roles to determine similarities and differences in approaches and responses according to individual roles. This data was then considered in the context of the current literature (Wolcott, 1994b) with assertions provided (Creswell, 2013). To consider the data, I used both inductive and deductive methods of data analysis.

Inductive data analysis.

On initial review of the data, I began with an inductive approach by letting themes emerge. I organized the information through this process of open coding, looking for strategies, actions, effects and the processes used by the leaders. I drew code labels based on the description of the data and looked for patterns, narrative threads, tensions, and themes within and across individuals (Denzin & Lincoln, 1994). I recorded incidental information as well that built on the

developing narratives and themes. Listening, observing, and interacting with the participants was the key role for me as a researcher as I sought an understanding of the interactions and expectations of leaders and instructional coaches/teacher leaders of their colleagues and the effects on classroom practices that resulted. I anticipated seeing patterns and themes emerging to explain the absence or presence of growth mindsets in teachers, and the attitudes they have toward students, particularly those students representing racial and ethnic diversity and those who disproportionately fall in categories of disabilities and/or interventions. The structured data coding elements from grounded theory were appealing in terms of organizing the data and developing themes.

Deductive data analysis.

From these themes, I deductively drew assertions relevant to leadership practices in terms of characteristics, strategies, interactions, modeling of growth mindsets, and the development of cultures to support diversity of student and teacher needs. I drew insight from Dweck's work on growth and fixed mindsets, incremental and entity theories. I examined how the categories and clusters of themes aligned with these theoretical constructs. This study also considered transferability in considering the data related to Teal's research regarding transformational leaders' ability to influence growth mindsets of teachers in low socioeconomic schools as well as other literature sources. In addition to transferability considerations, the deductive analysis may have the impact of sensitizing concepts from theory guided research (Gilgun, 2014), in this case from cognitive theories.

Ethical Considerations

Ethical considerations remain an important consideration in qualitative research. Denzin

and Lincoln, (1994) remind us that researchers and participants come together and engage in narrative processes with conditions that have been born out of prior inquiries. These inquiries can be seen as reflecting the interactions of experiences of participants entering into the field of researchers' experiences. I remained cognizant of the implications of my research on the participants, and kept their needs at the forefront of the process (Sieber, 1998). As sensitivity to the relationship of the researcher in changing stories and lived experiences is necessary, I also maintained an awareness of my own experiences as they related to and influenced the construction of narratives.

A summary of the data from the study was shared with the participants to allow for additional insights, and clarifications to the data, and to ensure accuracy of data collected. Due to the particularly high sensitivity and/or resistance, and fear of disclosure that can occur in discussing attitudes on race and disability, assurances were provided that pseudonyms would be used in reporting to ensure participant safety in speaking. Confidentiality was also addressed by concealing the location of the schools in the study, limiting information to a general region. As the researcher, I acknowledged that I could be presented with observations or information that is discomforting during data collection. These considerations had the potential to create challenges in accepting the interpretations of data.

In order to assure appropriate attention to ethical considerations, I secured approval from the Internal Review Board (IRB) of the University that I was attending. The IRB addresses the university, state, and federal ethical guidelines regarding human subject's research. I also secured approval from the participating districts to complete the case studies and consents from each of the participants. In addition, I used pseudonyms to protect the confidentiality and

identities of the participants, the schools, and the locations that were involved in the study.

Positionality

My interests in pursuing this topic of research are primarily practical in nature. I have been a practitioner in public education for over 20 years, serving in School Psychologist and Director of Student Services positions. In these roles, I have had the opportunity to work with varied student populations, parents, teachers, and other school district staff who serve these students. Common among these groups and individuals, I have observed a deep commitment to provide students with the best instruction and services a district can offer in an effort to maximize student achievement in academic, social and/or behavioral arenas. Within this commitment, I have also observed what I would suggest is a hint of protectionism and coddling. In understanding and attempting to meet the varied learning needs of students with disabilities, for example, expectations for performance and growth can be expressed as limitations due to the disability. This is also true of students of color who, at times, may have varied backgrounds or socioeconomic situations that are different from the majority population. This can play out in a variety of ways, one of which is in lowered expectations for the learner. Another observation of this phenomenon is seen by protecting the student from experiencing struggles or challenges and by removing students from the general education environment and curriculum.

I would suggest that many educators operate from a fixed mindset when it comes to students with varied learning patterns and backgrounds, including those students who are receiving tiered interventions, those who have been identified as having an educational disability, students with a first language other than English, and students of color. This mindset may in turn negatively affect expectations, opportunities, and achievement levels for these students. I am

interested in studying whether the leadership in the building can influence these mindsets to encourage higher expectations, increased achievement and decreased gaps for these students. My history and experiences have provided me with perspectives at both the building and the district office administrative level. This experience provides me with unique perspectives which will assist in conducting interviews with teachers as well as building administrators.

Limitations

Determining the number of cases to provide maximal depth of each case yet still allowing for some degree of transferability and determining the boundaries was challenging. The number of schools who have implemented a growth mindset school wide was limited. Leaders who identify as reflecting a growth mindset and having developed a growth mindset culture and community within their schools was limited as well. Due to the criteria for inclusion, some flexibility in establishing the cases was necessary in terms of school selections, levels, and age groups (elementary, intermediate, middle or high school). Variability in demographics proved to be a limitation in terms of potential transferability. The number of interviews and roles of the interviewees had not been predetermined and was in part dependent on the leadership structures in the schools. The degree and type of disproportionality varied among the cases. The cases were selected based primarily on the identification of high proportions of demographic groups. While disproportionality was sought for academic achievement gaps, the schools selected were currently meeting expectations and making progress on closing achievement gaps. The state's department of education data system provided demographic and district assessment information. This information was useful in identifying school districts and was intended to be used to triangulate data, however, this data did not exclude the schools from inclusion in the study as the

number of schools meeting criteria were limited. It was expected that the inclusion criteria would be highly individualized which lends limitations to transference to other studies.

Case Study 1

Innovation Academy

The Innovation Academy is a public school for students in grades 6-12 located in a rural setting near large suburban and urban communities. While the Innovation Academy is a public school, it draws a large part of its enrollment by virtue of a residential facility within its bounds. Students also attend the academy through open enrollment.

The Innovation Academy is a Next Generation Learning school which emphasizes personalized learning and student voice and choice as students demonstrate competencies in 4 areas, those of academic, employability, citizenship, and self-wellness. The Academy has challenged the bounds of traditional schools in practices and in structure. The Academy has restructured and renamed the traditional, hierarchical positions of educational assistants, teachers, and principals to coaches, learning specialists, resource specialists, and assessment specialists. The leadership positions have also been re-titled and redefined to Executive Director (Superintendent) and Director of Development (Director of Instruction/Principal). The renaming of roles has allowed the academy to alter the dynamics and transcend the traditional teacher as lecturer/deliverer of information role from the perspective of the students as well as the staff. The non-traditional role alignment allows the staff to see themselves in more flexible ways, for coaches and specialists to be facilitators of learning, and for the hierarchy to be de-emphasized. This also appears to have contributed to the development of a collaborative and collegial learning network among the staff. The emphasis in being non-traditional is to enable staff to be more

learner centric, to encourage staff to think differently and with less emphasis on the typical adult roles, to problem solve solutions without historical constraints, and to allow for nontraditional experiences for students based on their interests. The staff in each of the positions are encouraged to look at proposals, projects, activities, from the perspective of whether it is good for student(s) and if so, they take a thorough and layered problem solving approach to consider the barriers to implementation and to resolving those barriers.

The Innovation Academy has structured and scheduled communication forums scheduled each week. It is during these times that the administration and staff communicate and stay true to their mission and vision and ensure understanding of it. This time is used for professional development, to work through curriculum design and alignment, to problem solve classroom strategies, to work through barriers to implementation, and to model and practice their approaches to and with each other that will then be used with the students. The scheduled times occur during the middle of the week as well as on Friday afternoon. The end of the week time frame is a natural staff and program development time due to the schedule of the students that reside at the residential facility. The forums are designed to provide for input and the problem solving process from both the learning coaches and the learning specialists. The layered problem solving process not only includes input from all levels in the organization but also varies in how that process is initiated and structured such that problem solving does not consistently follow a top down model, for example. The layered approach to the design process allows for promising practices to become responsive and enduring practices through the following steps: define and document (opportunity to define), communicate and internalize (opportunity to learn), visible change in practice (opportunity to respond), and responsive, enduring practice (opportunity to

practice). The design process results in enduring practices versus fads and reflects multiple levels of input, from partners, learners, coaches, specialists, and directors.

The state's department of education reported demographics of the Academy for the 2016-17 school year as follows.

	2016-17
White:	61.9%,
Hispanic:	9.5%
Black:	19%
2 or more races:	9/5%
Students with Disabilities:	42.9%
Economically Disadvantaged:	61.9%

Administrators at the Academy indicated that students with disabilities and students with economic disadvantage were higher than the state's department of education numbers reflect. Due to the student placements and enrollment changes that occur frequently at the Academy due to the residential facility that feeds enrollment, there are limited numbers of students that complete the full academic year. As a result, the Academy does not report scores for the traditional state assessments, but rather it is an alternate assessment school. The Academy operates with the state's department of education approval to allow for academic tracking alternate to other schools.

The Innovation Academy is led by an Administrator or Executive Director, Noelle James, and a Director of Development, Krista Paulson. Both Noelle and Krista had prior teaching

experience and held leadership positions in larger suburban and urban districts prior to beginning their work at the Academy. In her previous positions, Noelle was an advocate for empowering learners and creating student centered learning environments. She worked in both principal and Director Positions to redesign instructional delivery to Next Generation learning platforms and personalized learning. She created specific infrastructure changes to allow for transformational work to occur, and worked with school leadership teams to empower them to redesign and implement changes. She was brought to the Innovation Academy to redesign the educational delivery model to increase learner engagement and develop learner agency. The redesign is based on six tenets of student centered learning, that of a multidimensional competency framework, multidimensional assessment, personalized plans and pathways, redesign of positions and roles, anytime, anywhere learning, and establishing practices and policies that support the work. They use a multi-dimensional competency framework organizing learning in four dimensions with a competency continuum around each of the dimensions of academic and vocational, employability, citizenship, and self-wellness. Students participate in assessments in each dimension to develop a learner profile which serves as a basis for the development of personalized plans and pathways. The design is based on the learner and not the adults.

Noelle described having been empowered by leadership early in her career to challenge the system and to continuously look for better ways of doing things to engage and empower students as learners. She described her successes as shaping her and her philosophy of developing leadership among everyone, including the students. She noted that “the more success we see ourselves having as a team, the more inspired you become to empower other people to do that leadership.” She believes in bringing everyone onboard and ensuring that everyone knows the vision. When that happens, she believes there is nothing that can’t be accomplished. The

“onboarding” of the vision includes regularly talking about their commitments and enduring practices and becoming comfortable with the discomfort that comes along with growth and change. Noelle indicates that if change is comfortable, it should be examined as it is perhaps more about the adult or about efficiency, than the student. Learning together, understanding and knowing the vision increases ownership in the system and allows them to adjust their thinking enough to do things differently. Their vision includes growth mindset and is reinforced at every level. Noelle noted that growth mindset is seen as a disposition that defines who a person is.

Krista, Director of Development at the Innovation Academy, described her role as taking the vision that Noelle has set for the school learning community and working with the staff to figure out what barriers are getting in the way of reaching that vision, and designing around that. Those barriers could be related to student behavior issues, curricular issues, structural issues, or staffing and training issues. She sees her role as helping to work through anything that is inhibiting them from getting to the vision. Krista’s background also included early work in transforming education through personalized learning. Initially, her role was as a teacher, then as an instructional coach, then as a district level administrator overseeing personalized learning. She has also had a consulting role in developing learner profiles. Krista was brought in by Noelle to help define and design what education at the Innovation Academy could look like.

Interviews at the Academy were completed with two learning or dimension specialists (teachers), two coaches (paraprofessionals), and two school leaders. The school leaders included the Executive Director and the Director of Development. The Director of Development position appeared to cross multiple roles including Curriculum Director, Principal, and Instructional Coach. All of the participants had been educators for greater than 5 years although their time at the Academy varied. See Table 1 for a list of educators interviewed at the Innovation Academy.

Each of the participants completed a 10 item growth mindset questionnaire prior to participating in the interviews. Each primarily endorsed the growth mindset items although not every rater was at 100% of the items.

Table 1. Research Participants at Innovation

Research Participants at the Innovation Academy

Pseudonym/Staff Member	Position	Experience
Noelle James	Executive Director	>20
Krista Paulson	Design Specialist/Director of Development	>10 years
Naomi Jackson	Learning Specialist	7 years prior to Innovation Academy; 2 years at Innovation
David Scott	Learning Specialist	> 5 years
Nora King	Learning Coach	< 5 years
Bonnie Dawson	Learning Coach	> 20 years

Case 2

Persistence Public School

Persistence Public School is a small, 4K-5 elementary school in a large urban community. As one approaches the school, a large metal fence can be seen bounding the perimeter of the school yard. Across the fence on the side of the school yard in large block letters is the word PERSISTENCE. This scene is depicted in Figure 1 below. The principal of Persistence Elementary changes the signs on the fence annually to reflect the attitude and

philosophy of the school. These signs represent growth mindset terminology and set the stage for what is seen in the school itself. In the past, it has read OPTIMISM; in the future, it will read DIVERSITY and SELF-CONTROL. All of the hallways in the school are identified by street signs that reflect positive, growth oriented names such as Persistence Place, Integrity Avenue. Bulletin boards reflect the stances of growth mindset including optimism, persistence, flexibility, resilience, and empathy. Others demonstrate fixed vocabulary and phrases and alternate vocabulary to show a shift from fixed to growth perspectives. These visual representations are evident throughout the building. Many of the boards include QR codes to encourage additional learning for students. Teaching teams also reflect the growth mindset terminology and positive attributes, for example, Team Integrity, Team Perseverance, Team Power, Team Respect, Team Imagination, Team Discover, and Team Excellence.



Figure 1. “Persistence” The word Persistence adorns the playground fence at Persistence Elementary reflecting the philosophy of the school.

Persistence Public identifies itself as a Next Generation learning school focused on providing personalization, voice, and choice for its learners in student centered learning environments. Hallmarks of the Next Generation Learning School includes competency-based progressions and family and community partnerships. Persistence boasts having been named as a 21st Century Exemplar School. Persistence has received attention and frequent visitors from all over the state and country and has had international visitors as well. Persistence has altered the spaces within its walls to allow for flexible grouping among grades and greater teaming among teachers. In addition to expanding the rooms that are adjoined to allow for shared space, Persistence has used other learning spaces in non-traditional ways. This includes the auditorium space which has become a very large classroom for 2 grade level classes, as well as the cafeteria space which has become a classroom environment. Persistence uses online platforms to measure and support student growth. The online platforms allow teachers to confer with students individually and to group students flexibly based on data, to improve instruction to individual students, and to enhance learning. Teams of teachers work together to meet the needs of multi-age, multi-grade learners. Students build agency as learners as they create learner profiles and personalized learning plans. While this arrangement generally increased the numbers of students in the learning spaces, it did not appear to reflect any increases in student behavior challenges. Students were observed to be engaged in the learning tasks and moved flexibly within their learning spaces. Social emotional learning and self-regulation for students are addressed in part through “Peace Corners” in classroom communities as well as by employing growth mindset stances, participating in restorative circles, determining and reflecting on their “zone” and determining appropriate strategies for self-regulation. The teachers endorse the next generation learning practices they are engaging in. They indicate concern for the students as they move into

other school levels that may not allow for as much student agency in learning. Although teachers acknowledged the high numbers of students with economic disadvantage in their school, their approach was to ensure students' basic needs were met for example, by ensuring that students would have food over breaks. In terms of specifically recognizing the demographic groups within the classrooms, their approach reflected more the personalization of learning for all students vs. emphasizing raising achievement of any specific group. The personalized learning approach emphasizes individual growth and promotes growth mindsets among the teachers.

The state's department of education reported the following demographics at Persistence for the 2016-17 school year.

White	52.8%
Hispanic	24.8%
Black	11%
Am. Indian or Alaskan Native	1.0%
Asian	3.2%
Hawaiian, Pacific Islander	.2%
2 or more Races	7.0%
Students with Disabilities	13.3%
Economically Disadvantaged	56.2%
Limited English Proficient	2.9%

For the 2016-17 school year, Persistence Elementary was proud to note their school's test scores fell in the category of meets expectations at 68.1%.

Persistence is led by a principal, Tanya Woodworth, and an Academic Dean of Students/Deeper Learning Coach, Larissa Smith. Their roles are complementary to each other with the principal taking the lead on behavior related issues and the academic dean leading more on academic issues. Although they suggest a relative division of labor, they work together to determine the direction and needs of the building and present a united front to the instructional staff such that they are able to provide consistency in responses regardless of who staff members interact with. A school counselor, Belinda Kimmons, provides additional leadership on social emotional learning strategies, curriculum, and interventions. These individuals reflect a high level of pride and of commitment to Persistence, the Next Generation Learning philosophy, and the belief in the work of the school. The commitment is exemplified by the principal who, although admittedly she may not always enjoy it, supervises recesses as she believes the teachers have more important work to do. Despite the proximity of the school to the students in the community, the parents in the community struggled to consistently get students to school and to school on time. The principal used her influence and resources to add a bus for her school. She not only found a way to add the bus, she also took the responsibility of riding it to ensure safety and behavioral compliance for her students.

Tanya began her career as a teacher. She reported being encouraged by an innovative leader to become a lead teacher, a role consistent with the current academic dean position of her partner, Larissa. Tanya then became an instructional coordinator prior to taking on the role of a principal. The principal role has allowed her to bring her focus back on the students. As she stated, “At the admin building, there are days that you forget there are even kids present. You know, it’s really that the focus is off kids.” Tanya tries to treat everyone respectfully and believes in putting families first to ensure staff can focus on their work at school. Her priority is moving

forward with the building goals and with implementing the Next Generation learning model. As long as there is movement, and a focus on students, she is not concerned with the pace of the progress. When there is a problem, she often asks if it is a 'kid' problem or an adult problem. She is much more willing to spend time problem solving and getting input on student problems. She keeps staff focused on students by maintaining this mantra. Tanya maintains that for the first month of school, she wants the teachers to be focused on building relationships with the students and making them feel safe. She notes that they hate labels at Persistence so they identify a student with a disability only if they are sure; they do not want to over-identify. She also reports that if a student is struggling, the staff struggle with them to find solutions and increase learning. For the last three years, by the time they students moved on to the middle school, Tanya reported no student was achieving below the 30th percentile, not even those who had been identified with a disability.

Larissa reported a history of having struggled as a student herself, of not having had a growth mindset, and of often giving up or pretending not to care because that was easier. As an adult, she was able to face challenges with the support of family, professors, and educators along the way, and at some point, she was able to say, "I can do this." People now are surprised because they see her as an intelligent woman. She believes she is proof that looking at someone or their label and saying, "that's your intelligence and that's as far as you can go" is not true. It is a little harder for her and she needs to constantly be reflective about mistakes and challenges she may have but she is determined to overcome those issues and carry on. Challenges still make her uneasy but when she processes, Larissa describes her role in trying to change the way education is for students as inspiring, "Every small step it's just invigorating to say we did it and we kind of keep going at it." Larissa always brings the perspectives of herself as well as her two children

who both had IEPs, particularly with respect to decisions related to students with disabilities. She recalls the way she felt in the classroom when it was time for her or her group to stand up and leave the room and how she felt everybody knows, “there’s a big target on my back.” “She needs extra help, she’s not as you know, intelligent.” She uses this experience to help create a different environment where students feel more inclusive and it’s not pointed out that this person may need more help than another. She and Tanya both always advocate for what they believe needs to happen in the classroom for all students.

She, like Tanya, had been part of a group in the district involved early in the work with next generation learning and had implemented the model in her classroom with two co-teachers. She understands that it is scary for teachers to change the way they have done things for years that their practices work in a sense. However, that is why they open their doors to other educators visiting and talking with the teachers. It becomes less scary, people become more open, they have data to support their practices, and the students are leaving Persistence as different learners who try to advocate for themselves.

Like Tanya, Larissa also believes that leading and coaching begin with relationships. Staff need to understand that they are working with them; the team approach of collaboration is where a lot of their success comes from and what she values most in her leadership role. Larissa values the relationship with Tanya and the conversations and brainstorming sessions they have and then sharing that with staff. Although at times they might be initially reluctant, eventually, they hear the staff believing in the vision, and having a shared vision and seeing how much that’s going to benefit students, Larissa describes it as, “Awesome. It’s like the hairs go up on your arms because you’re like, oh my gosh, they’re not just saying it because we said we’re doing this, they really truly buy into it! That keeps me going.”

Interviews at Persistence were completed with three leaders (principal, academic dean, school counselor), a team of two teachers and the intern working with them, and two additional teachers, as indicated in Table 2. Another team of teachers (two teachers and an intern) participated in a portion of the interviews however, due to schedule constraints, this interview was not completed. Each of the participants completed a ten item growth mindset questionnaire prior to participating in the interviews. Each primarily endorsed the growth mindset items although not every rater was at 100% of the items. Participants were primarily educators of greater than five years' experience although participants did include interns and one staff member with fewer than five years' experience.

Table 2. Research Participants at Persistence

Research Participants at Persistence Public Elementary School

Pseudonym/Staff Member	Position/Title	Experience
Tanya Woodworth	Principal	18 yrs. current district, 8 yrs. at Persistence
Larissa Smith	Academic Dean/Deeper Learning Coach	5 years as Dean/Coach
Belinda Kimmons	Counselor	< 5 year
Barbara Ames	Teacher	> 8 years
Kate Christensen	Teacher	27 years
Pat Jones	Teacher Team	1 teachers > 5 years
Jackie Reyes	Teacher Team	1 teacher > 27 years
James Welsh	Teacher Team	1 intern - 1 year

Case 3

Achieve Elementary

Achieve Elementary is a small, two story, brick building in a suburban setting that is bounded by a large, metropolitan area. The parking area has flags/pennants on the light poles that reflect the school's colors, mascot, and inspirational words such as inspire. While its size and appearance are not formidable, it does belie to some degree the comfortable, cozy feeling that envelopes one upon entry into the hallways and classrooms of the building. Throughout the building, there are positive messages, many of which relate to growth mindsets. For example, "Smart is not something you are, smart is something you get." Within the classrooms, the messages are more prevalent and specific and reflect the philosophies in action with pictures, note cards, post its, etc. which reflect growth mindset language and strategies in student friendly displays. Displays include 'good habits' and 'bad habits' and 'desirable' and 'undesirable' behaviors and strategies for working as a team, solving story problems, reading strategies, training your brain, setting goals, and writing. These displays remind students subject by subject how they can improve, and offer strategies and reminders to do so. These messages reinforce student learning and serve as visual referents for the teachers as students encountered challenges.

Initial observations occurred in the morning while school was in session. A teacher stood outside of the building near the entryway and greeted students as they were dropped off, talked with them and ushered them into the building. She reflected a warm demeanor and seemed genuinely happy to see all of the students which was expressed verbally as well as by her physical gestures and actions. The principal shared later this was a special education teacher who voluntarily went out each morning to greet and welcome students and get them off to a positive

start. This action was a part of the larger philosophy of making the Achieve school a place where everyone wants to be. It also appeared to nest well in the larger picture of ‘soft starts,’ an intentional change in to the morning routines whereby the school developed some latitude in structures designed to reduce barriers for students and to increase attendance. Soft starts provided students some flexibility in reporting to school but also provided some varied activities and interests for students to participate in. Students could enter the building and start their day with “Wonder Wednesday” or “Travel Tuesday” where they could pursue areas of interest or they could acclimate to the school day in more relaxed ways, whichever suited them. This change in structure allowed students to enter with some flexibility in timing vs. starting with a ‘tardy’ for example, and without lining up/waiting in line to get in. This structural change of soft starts aligned with their stated philosophy of honoring kids’ curiosities; it made the start of the school day more student friendly and encouraged students to want to come to school. It also reflected the school’s efforts to remove barriers to learning, to increasing engagement with students, and to building relationships with them.

Despite it being arrival time, the office was a place of calm. The principal welcomed me into the office and took time to meet with me right away despite the school’s assembly scheduled to start within the next hour. The principal began sharing about the school. Pride in the school and staff was evident as he pointed out two books on display that the school had been featured in. The books not only described features of the school’s inquiry based learning philosophy but also provided specific examples of the staff’s experiences in becoming inquiry based. These experiences included taking risks, learning alongside of the students, and modeling, which included the sharing of personal experiences, problem solving, challenges faced, and inquiries ensued, that supported students and each other as colleagues as they shifted from a traditional

curriculum delivery model to facilitating learning and encouraging and supporting student inquiry.

Throughout the interview process and visits with the school, the principal and instructional staff referred to the school's "heartbeat." This heartbeat was described as the school's philosophy of "honoring kids' curiosities, celebrating getting smarter every day, and continuous learning and growth." The heartbeat permeated the conversation with the principal, the instructional coaches, and the teachers who were interviewed. The principal indicated that growth mindset wasn't something they were doing in isolation, it wasn't about just telling students they hadn't gotten there "yet" but that it was just how they operated. Growth mindset was infused in the building's work on goal setting and was observed as a feature of feedback as teachers developed rubrics.

The state's department of education reported the following demographics at Achieve Elementary for the 2016-17 school year.

American Indian:	.6%
Asian	7.5%
Black	4.5%
Hispanic	25%
Native Hawaiian	.3%
White	57.1%
Two or more races	4.9%.
Economically disadvantaged	42.40%
Students with Disabilities	11.5%

Limited English Proficiency 6.4%.

The education department data noted that the school fell in the category of Meets expectations in reading with a rate of 69.4% of students meeting expectations.

Achieve Elementary is led by Principal Nate Somers. Mr. Somers was a teacher for several years at elementary and middle school levels. Although it was difficult to leave the classroom, he went into leadership as he believed he could have a greater impact. He reported his years as a teacher having shaped his leadership style. For example, he knows what the barriers are for teachers so he works to remove those barriers. Time for implementation of new strategies, instructional practices, and curriculum has always been an issue. Mr. Somers has arranged for a large part of the budget to be targeted to release time so that teachers can work with each other and/or the instructional coach. Having seen both negative and positive environments, he desires to create a school where everyone, including the teachers and students, wants to be there, a place that's good for students, teachers and everybody.

Dispositions are critical among his staff. Mr. Somers' philosophy is that anyone can learn better strategies but it's extremely important that they really like kids. At Achieve, they truly believe in relationships and the research behind the fact that kids learn with people who like them and when they feel valued. Mr. Somers pointed out with pride two books that his school was featured in, one on establishing curious classrooms and one on collaboration. Although he indicated that they started with inquiry based learning, it's more evolved than that, it is about what they do. Mr. Somers stated, "We don't do inquiry, it's more of our mindset of how we do business, meaning we honor kids questions. We honor what kids are curious about." A lot of the work around the curious classroom is around their "Heartbeat" which is at the core of all professional learning and their continuous growth plan. Even though growth mindset is part of

the continuous growth plan and there are posters and banners reflecting growth mindset slogans, Mr. Somers reports that they don't want to think of it as something canned like putting up a bulletin board and learning how to say yet, and considering that done. Instead, they want growth mindset to really be how they operate and do business. Their leadership team researched growth mindset in relation to goal setting and have infused it into their goal setting work throughout the grade levels and subjects. They also plan to infuse it into their work on rubrics and feedback.

Part of Nate's leadership is derived through his collaborative partnership with his instructional coach, Zoey Dircks. Zoey started as a coach at Achieve at the same time as Nate took over the principalship at Achieve. Professionally, Zoey has been shaped by those that have encouraged her to try something new. She has not always been comfortable doing new things or leaving the learning open ended. However, she has had mentors who taught her that there isn't always a right or a wrong way and that it's okay if you do it the wrong way first and if it doesn't work, you can always go back and fix it or try and make it better or make whatever changes you need to make. Philosophically, she believes that growing side by side with teachers is what she values most in her leadership role. She endorses the idea that one of the most important things she has done as a coach is to not be afraid to try something new with teachers because if they're willing to take the risk, she is willing to take the risk with them. Sometimes it works and sometimes it doesn't. When it doesn't, "we're back to the drawing board and try to figure something else out." The district approach to coaching is also that it's an invitational model. She only works with teachers who want to work with her. She does not enter with the mindset of coming in to fix anything, she is coming in to work with teachers to grow their practice and as a result, she grows her own practice. Zoey believes that the culture of the building and the mindset

of the teachers is that they continually want to improve their practice and that they trust each other to do that by taking risks.

Zoey and Nate report an open relationship in terms of communication. They debrief with each other after coach or district leadership meetings and discuss the potential impacts or next steps in the building. They discuss professional learning, what they need to do to facilitate learning or implementation of initiatives in the building and work together to try to bring that to the staff. They have also developed a building leadership team to help develop their continuous growth plan. They recognize the value in teams of people helping to deliver clear messages and leading with them to meet their goals. It isn't just Nate telling them what they need to do; the school does not have a top down approach.

Interviews at Achieve Elementary were conducted with 6 staff members including the principal, two academic coaches and two teachers. Interview participant information can be found in Table 3 below. The interviews were primarily conducted on site and in person, however, two of them were split into two different segments due to timing and in-school responsibilities. One of those was then completed via telephone. Each of the participants completed a ten item growth mindset questionnaire prior to participating in the interviews. Each primarily endorsed the growth mindset items although not every rater was at 100% of the items. Five of the six participants at this school were veteran teachers of greater than five years, although one of these participants had not been in the current role for an extended period of time. One participant was a teacher who was newer to the field (less than five years).

Table 3. Research Participants at Achieve*Research participants at Achieve Elementary School*

Pseudonym	Title/Role	Experience
Nate Somers	Principal	>5 years (principal; 18 years teacher)
Zoey Dirks	Coach	>5 years (coach, prior to this role > 20 years as a teacher)
Angela Mason	Coach	>5 years (teacher and 1 year coach)
Darcy Morgan	Teacher, 2nd gd.	> 5 years (teacher at Achieve, prior admin and teacher)
Jenny Johnson	Teacher, 1st gd.	< 5 years

Chapter 4

Findings

This case study was based on three public schools within the same region of the country. Two of the cases were urban, K-5 elementary schools whereas one was a 6-12 grade configured school. The composition of the elementary schools were similar demographically, meeting the criteria established in the design of having over 20% of the student population falling in a subset or category which has been traditionally marginalized. Each of the elementary cases had higher populations of students identified as Hispanic, at over 24%, while the 6-12 academy was higher in numbers of students with disabilities than the two primary schools. The demographics of the 6-12 academy did not reflect high percentages of Hispanic students, however, black students approached 20%. All three of the cases had high numbers of students in the category of economically disadvantaged with over 42% of students identified.

The three cases were similar in that each of the schools were engaged in efforts aligned with versions of next generation and personalized learning paths. This convergence of philosophy was a stronger unifier of the cases than the grade level alignments or demographic differences. The leadership of the Academy had also previously been employed as a leader in one of the elementary cases, thus lending additional connections between the two cases, both with personal referents as well as with philosophy of the schools. The focus of the schools on individualized approaches provided direction and events for the schools as rallying points, resulted in a level of notoriety, and an elevated status which included site visits from other districts and states as well as garnering international attention. The individualized approaches included growth mindset as a feature and occurred with a corresponding shift from deficit

ideology and language. In each of the cases, the schools developed a culture that enabled the staff to develop their growth mindsets regarding their individual and collective efficacy, which affected the culture in their classrooms, the language they used, and the emphasis on developing student agency. For these reasons, the similarities of the schools outweighed the differences to support the cross case comparisons.

The schools' focus on their vision emphasizing personalized learning and development of learner agency, the development of a cultures that encouraged collaboration, professional risk-taking, and valued professional development, and the reduction or deletion of deficit ideology and language are the primary themes that emerged from the data. These themes will be outlined further, as will the sub-themes that emerged in each category, and implications for further study. The graphic in Figure 2 reflects the interactions and cyclical nature of the elements of each of the themes and the sub themes within them. Each of the themes coexist independently yet at times, elements of them cross the boundaries of the other themes serving to reinforce the concepts within that theme.



Figure 2. Growth Mindset interaction with Themes. Leaders develop growth mindsets of their staff through vision, culture, and language.

Leadership philosophy and direction

A core philosophy in each of the cases was in student centered learning, empowering student agency, and in the collective efficacy of the teams to engage and motivate all students for increased learning and learner agency. Each of the leaders had sought administrative positions to enable changes in the system and to push against the status quo. Each sought to engender changes through empowering teachers to lead, to support, and to learn from each other, and to take risks in their practices. Each sought to challenge the traditional system, to empower learners, and to create student centered learning environments.

In terms of effecting change in larger systems, Noelle James, Administrator at the Innovation Academy, described looking for “pockets of innovation” while recognizing the forces within the system will tend to push back toward the norm. She described needing to “clear the path to allow for the pocket of innovation to continue to grow and thrive and not be squashed.” She recommended doing this by enacting policy and procedural changes to allow for the continuation of innovative practices. Systems change such as that of personalized learning or other initiatives might require redesigning common practices to support teachers in “thinking outside of the box” and to have more of a growth mindset than a fixed mindset. One such example cited was revamping the practice of common benchmark assessments given at specific time periods during the year for all students. Noelle believes this practice results in language and perspectives of “this many students can do it, this many can’t,” reinforcing deficit language and fixed mindsets about learners. Since learners are on a continuum even at the time of the common assessment, the redesign of the common assessment would look at the assessment over a continuum of learning, instead of at specific times. As such, the benchmark assessment would be given when a student is at a place on the continuum where they are ready to demonstrate that

learning. The assessment then serves to verify the learner's understanding and to measure growth. This change in practice of assessments given as learners progress through the continuum allows for looking at how many assessments the students progress through over the course of the year, a practice which may provide better information on learners' growth, needs, and next steps across the learning progression. This change alters the language of dichotomy, of having students at grade level or not, of students who can or cannot meet benchmarks, to one of growth individually. According to Noelle, focusing on growth, creating systems and structures so that growth is the emphasis instead of deficits, can change outlooks. It makes it easier for people to think "outside of the box" and to have more of a growth mindset about the learners. While this may appear as a small change in practice, in larger systems, it can be complicated to get through all of the layers, to make the change, and to achieve consistency of practice.

Noelle and her instructional team revealed elements of their student centric philosophy and growth mindsets in presentations and printed materials in addition to the interviews. One perspective, depicted in Figure 3, was contained in a document reflecting their views on research based practices vs. practices based on research. In this material, the Innovation Academy leadership described the view that research based practices are those that are implemented with fidelity with the goal of replicating previous results. The challenge noted with research based practices is that environmental and learner related needs are not taken into account. However, when research informs a model of thinking and ideas to develop unique and innovative approaches flexible to learners and the environment, new mindsets are created. Innovative practices evolve from these new mindsets including practices that are trauma sensitive or related to design thinking and learner agency. This allows for a freedom to individualize and to look at

individual learner growth within the system. It also allows for adult thinking to stretch and consider positive alternatives rather than to be stuck in a deficit or limited mindset.

Research Based	Based on Research
<p>Practices implemented with fidelity with the goal of replicated previous results.</p> <ul style="list-style-type: none"> • If you do this in this way, these will be your results (i.e., Units of Study, Wilson reading, text series) • Challenge: Does not account for environmental and learner needs. 	<p>Research informs a model of thinking and ideas to develop unique and innovative approaches flexible to learners and environment.</p> <ul style="list-style-type: none"> • New mindsets are created. • Innovative practices evolve from new mindsets. (i.e, trauma sensitive, design thinking, learner agency)

Figure 3. Research Based vs. Based on Research. This information was part of a presentation by the Administrator and a Learning Specialist from the Innovation Academy. This represents the perspective of Research based vs. based on research impact on mindsets and innovation.

Enculturation of the Mission and Vision

Living, breathing, shared, ingrained. These were the terms describe by the leadership of each of the cases regarding the status of the vision in their schools. In each of the schools, it was clear that all staff members, regardless of their position, knew and understood the vision of the school and that the vision provided guidance or a direction to strive toward. Each of the schools communicated and reinforced the vision somewhat differently and each developed structures to continue to deliver on the work of the vision. Although growth mindset was a piece of each of the schools' work, it was not consistently identified as a goal area across each of the schools, nor was it consistently measured. It was however, identified consistently as a part of the culture

across each of the buildings and was an expectation and a ‘look for’ in hiring. One of the ways the schools developed the culture was by adhering to the vision. Table 4 depicts the themes of vision, culture, and language and the sub themes within them. In this section, I will focus on the theme of vision and the sub themes within it.

Table 4. Themes of Vision, Culture, and Language

Depicts the sub themes of the vision, culture, and language that assisted leaders in developing growth mindsets.

Vision	<ul style="list-style-type: none"> • Focused and ingrained • Communication/expectations • Leadership Philosophy • Supportive practices-Hiring
Culture	<ul style="list-style-type: none"> • Collaboration • Modeling • Risk-taking • Professional Development • Leadership Development
Language	<ul style="list-style-type: none"> • Deficit Language • Diverse Populations • Reflection and Reappraisal

The development of the priorities and the vision were derived differently among the schools. At the Innovation Academy, Krista, Design Specialist/Director of Development, described the vision as having been established by the Administrator, while she as the Director, was tasked with carrying it out. This vision at Innovation incorporates a learner centric approach and multi-dimensional assessments to create robust learner profiles that engage the learners in self-reflection across four dimensions, those of academic, employability, citizenship and self-wellness. At the Innovation Academy, developing learner agency is at the heart of their model. Krista Paulson, Director of Development, described the staff mindset toward the students as “We

are going to believe in you until you can believe in yourself. We are going to have hope for you until you can develop that hope for yourself. And we just say that over and over and over.”

Bonnie Dawson, learning coach, concurred explaining that they work on mindsets, finding out where the student’s mindset is and building from there.

Aligning processes with the vision to support the vision

Krista, the Director at Innovation, noted that they are very ‘vision focused’ at the Academy. Krista described that she and Noelle always refer back to the vision; that “anything we’re talking about is through the critical lens of ‘is this getting us closer to our vision? Is this the next best place to be to get to that vision?’ We also talk about vision versus reality. Here is where the reality of where we are, so what do we need to do next? We are always looking toward the future.” Everything is seen through the lens of the vision, including the development of short term and long term goals and how to reach them, identification of barriers, and identification of what needs to be learned. These are all aligned with the vision as is the expectation of professional behavior to support student learning. Krista described a norming process to ensure all staff are in alignment with the vision, including knowing what the staff need, when they need to come together, and aligning their language and learning. They all work together to determine clear indicators and clear language and to reframe their language and perspectives to support growth mindset language vs. a staff directive approach. Krista noted that it is easy to be directive; it takes work to change to a student solution or growth focus.

Innovation’s design process reflects intentionality as does the continuous focus on learner interest. Krista explained that all staff have the same vision and the same mindset, however, she stated that they approach it from different entry points which makes them stronger at each level

and as a whole. All staff work through the process, sharing with each other, so that everyone is comfortable having struggles, having different perspectives, and voicing their opinions. Krista described that the design process incorporates a five level process, bringing in more people at each level, running into more challenges and problem solving the issues. While there may be disagreements that arise at each level of input, the staff need to determine what they will do to move forward. Because of the level of transparency all the way through the organization, Krista reported that by the time they get to a resolution, they have consensus. The design process, as shown in Figure 4, is always moving them forward, which is the most important part. According to Krista, this process keeps staff engaged at all levels and positions, and keeps them all true to the vision. Noelle, administrator at Innovation, explains that if someone disagrees, “they bring it right back to the design challenge again.” Noelle went on to share that it is not personal or an individual performance issue necessarily; rather, they look at what the system issue is that is impacting them and not allowing them to reach the learner like they want to. In the design process, Noelle described the primary question as, “What is the system issue that we can design around that will help this learner get through their struggles?”

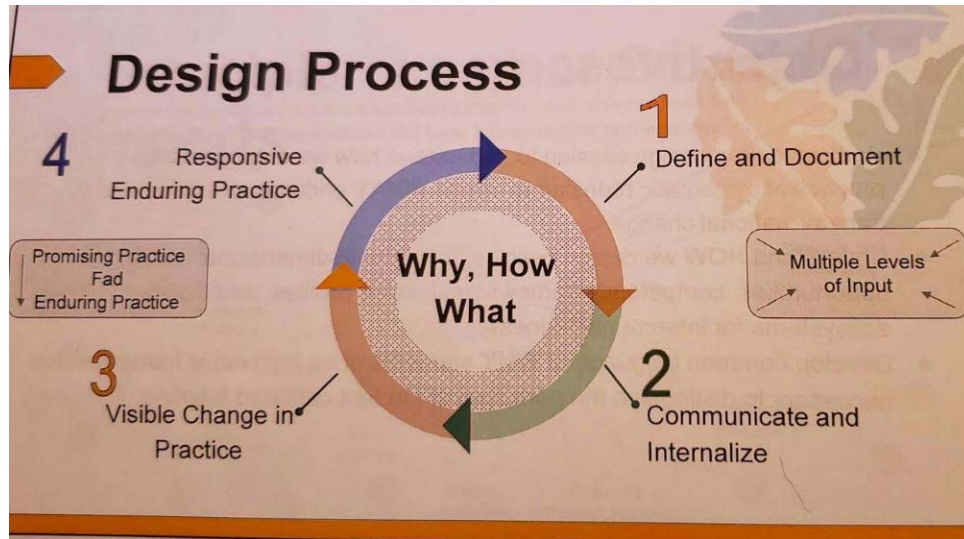


Figure 4. Innovation’s Design Process. The design process is often referred to at the Innovation Academy and is key to ensuring adherence to the vision and providing opportunities for input and collaboration. This representation of the design process was a part of presentation materials that were used by the Administrator and Learning Specialist to describe the processes at the Academy during a conference presentation.

Although the vision was set by the Administrator, the specialists and learning coaches did not feel ‘micromanaged’ rather, with respect to strategies, activities, projects, and the processes for input, each reported that they felt valued and as though they had a voice. The specialists and coaches described the administrator as communicating a message of trust in them to carry out the vision and that they are “smart enough to figure it out.” At the Academy, the interview participants all discussed the design process that they use to implement the vision and described it as their operative model. David Scott, learning specialist, described this as a methodical process to get to agreement. He explained that they use a ‘coaching through barriers model’ which is critical to their success. While Noelle set the vision, Krista brought them together to

come to agreement, to gain collective buy in, and to engage in problem solving before initiatives are started. The process is also designed to reflect on what is and is not working and to make adjustments.

Aligning staff to the vision

The Innovation Academy employs a multi-layer process (5 layers) which includes feedback and problem solving by all of the staff. This enables all of the staff to understand why, how, and what they are doing, to have input, and to articulate the decisions and strategies themselves. The staff model processes with each other. The adults experience the process and strategies, then model to, and provide the experience to the students. The process develops leadership in all of the learners, both adults and students. At the Academy, all staff discuss the vision throughout the multi-layer process. The design process, as seen in Figure 5, encourages staff to bring ideas forward and develops an attitude among them of “there is nothing we can’t accomplish.” At the same time, the design process ensures adherence to the vision as it brings them back if they are heading off in a different direction. The administrator at the Academy, Noelle James, often refers to ideas and solutions that are comfortable to staff, as those that need to be examined more closely, as they are likely being brought forward from the old, industrialized model, and perhaps are more in the interest and efficiency of the staff rather than in the interest of the students. These traditional ideas and solutions are brought through the design process for a critical review and to ensure they align with the practices and philosophy of the Academy.

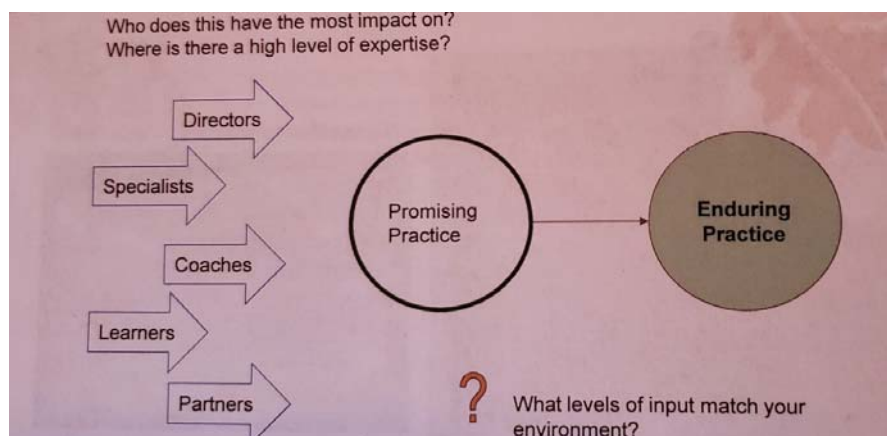


Figure 5. Five Levels of Input. The Administrator and a Learning Specialist used this graphic to describe the five levels of input in the design process at Innovation. This was part of a conference presentation during which the processes and procedures used at Innovation were presented as a model for other districts.

Within the multi-layered design process, Noelle and Krista described enduring practices and fads and where they are on the continuum to internalizing the practices. According to Noelle and Krista, a ‘Promising Practice’ becomes the framework that ensures the vision comes to life. “Promising practices are a solution to a design challenge and/or are a next step toward realizing the vision.” As a practice develops through the design process, learning specialists and coaches work within their teams, apply the practice in their community, and use the same language with students. The staff meet every morning and after lunch with the students, each of whom select and verbalize an academic goal for the day. Specialists and coaches meet with students regularly for conferring sessions. Specialists, coaches, and the design specialist meet weekly to bring ideas forward, report back on implementation of practices, and give and receive feedback on processes, activities, or initiatives. Through this interactive process, the communication and staff

involvement allows all staff to have ownership and belief in the vision and the systems and strategies that are developed. This process is depicted in Figure 6. Nora King, learning coach, described the weekly meetings and processes as being helpful and supportive. She appreciated the opportunity to have everyone in the same room to talk about goals. The trajectory of this process is from vision to leadership to learner. This process also develops the culture around the vision and creates the unification of the staff and the philosophy of the school.

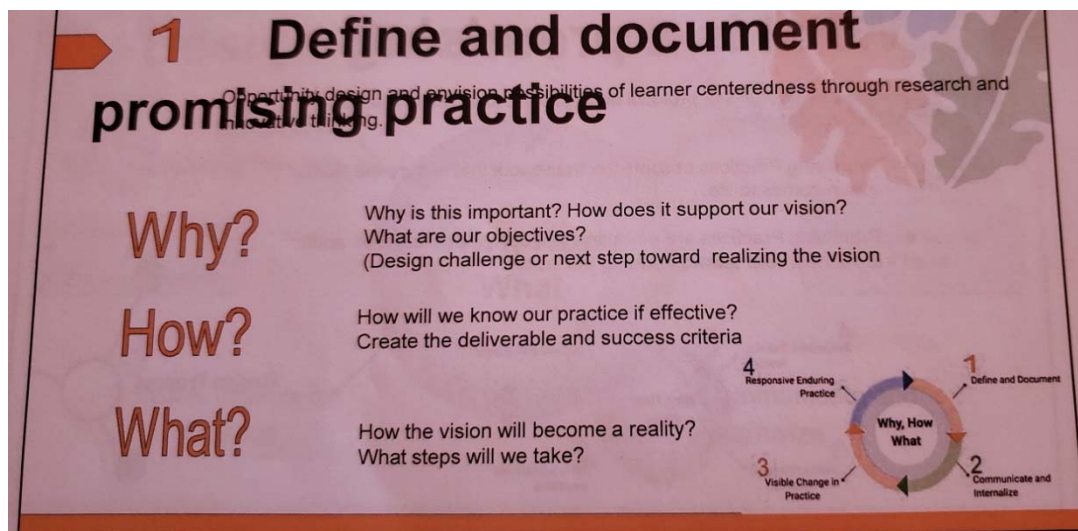


Figure 6. Practices keep the vision in focus. This picture represents the practices that are viewed with the vision in mind at the Innovation Academy and as presented at a conference.

Vision dissemination and adherence through coaches and leadership teams

At both the Achieve Elementary and Persistence Public Schools, the principals identified the value of working with their coaches to develop and communicate the vision and the focused priorities as significant and critical to their accomplishments. Leadership teams at both schools were identified as having a significant role in determining the priorities, in communicating them,

and in assisting with professional development for the other staff members. The team development and involvement versus a ‘top-down’ directive was viewed not only by the administrators, but also by the coaches and teachers, as part of the strength and success in implementing the plans, staying focused, and moving forward toward the vision. Staff and administrators at each school accepted the District level goals and priorities, however, the schools also had some flexibility to generate continuous improvement goals that aligned with the districts’ goals. Angela Mason, one of Achieve’s coaches, described appreciation for the staff involvement and the principal’s approach to the development of the goals and priorities in service of the vision. Angela described having worked with other principals in other buildings who were more task oriented and focused on test scores, without the provision of ideas and ways to improve. In Angela’s view, these principals were creating or contributing to a negative atmosphere and not pushing the school to grow. She held appreciation for Nate’s willingness to try new things, to being open to teachers needing to grow, and for his awareness and recognition for that learning and growth to be okay. Zoey Dirks, Achieve’s other instructional coach, concurred and shared that Nate (principal) does not communicate these priorities alone. The leadership team helped Nate to develop the continuous growth plan and a clear message. Zoey added that it was important that the process was not top down approach and it was delivered by the team, not singularly by the principal.

Involving the staff in developing and implementing the vision

At Achieve, the continuous growth plan carried over from summer work the principal and the leadership team engaged in. The leadership team brought this work forward, connected it to the vision and shared it at staff meetings. The team discussed the goal, shared reasons for determining the goal, and outlined the next steps. According to Nate and the coaches, everything

was connected to the vision, from professional learning, to PLC work, to release time. Nate, the coaches, and the teachers all commented on the school's vision, its central role in the school, and described the vision for Achieve, the "Heartbeat," as permeating everything. Everything was also linked to back to the goals. Angela Mason, the math coach, praised and supported the principal and the role he played related to the vision. Angela noted, "The vision of our school and what we are capable of doing is so much greater when we have a principal like Nate who has a very growth oriented perspective and who is willing for people to take risks. Our building has grown so much over the past five years because of that." Zoey, Achieve's other learning coach, remarked on the open lines of communication between Nate and the coaches and the value that communication provides in terms of maintaining the building focus. She described the process whereby the principal or the coaches bring back information from administrative or district level leadership meetings. Nate and Zoey debrief together to determine the impact on the building, what needs to be done. She described regularly meeting with Mr. Somers and Angela, the other coach, and working together to facilitate the district initiatives with the staff, while still maintaining the focus on the building specific vision. The three of them also work together to get feedback from the teachers as they look to improve what they are doing, navigate issues, plan, and support the vision and the teachers' work toward it.

Principal Somers, at Achieve, believed it important to spend time on goals (greater than one year) as that allows you to learn more and "the more you learn, the more there is to learn." The consistent connection throughout all activities of the school was believed to increase the buy in of all staff members in adhering to the vision and to build upon the culture to support it. Similarly at Persistence, while the Principal and the Academic Dean/Deeper Learning Coach worked together on setting the priorities, the staff worked through the 'big rocks' and 'little

rocks,’ or the big pieces they were going to work on and all the little pieces that would help to get them there. Through their group work, teachers felt empowered as a whole, and trusted as professionals, to do what they deemed appropriate. In both schools, teachers were allowed to take risks in their practice and did not receive pushback from the administration as long as their actions/plans fit within the larger goals or initiatives of growth mindset stances and goal setting. Teachers reported that they felt trusted that if it would help the mission, they could do what they believed to be best and they were emboldened to try. The leadership in turn, described the impact as unifying the staff around the vision. As Larissa, the Deeper Learning Coach of Persistence, noted, “It makes the hairs stand up, it keeps me going.”

Leadership involvement in developing and communicating the vision

At Persistence, the principal and the learning coach work together to develop ideas, next steps, and committee structures that are aligned with their vision and their theory of action, that the teachers can study and learn about, and then lead others on. Both Tanya and Larissa are reflective regarding what has worked and the progress they have made. Based on the data, Tanya and Larissa consider where they need to go next and what steps they need to take. Tanya and Larissa aspire to be transparent in communicating with the staff about the needs they identify. The staff provide information and feedback to the principal and coach through their work in committees. The committees look at data and the needs of the building and help the principal and coach to establish the next steps for the summer work, the school improvement plans, or the goals. Larissa and Tanya report that they always try to ‘connect the dots’ for the staff to avoid disconnection and siloing of information. Larissa described that they try to keep it all connected, trying to show staff so they can “see the thread; we’re weaving it through.” They weave learning and practices, such as those related to trauma and self-regulation, and their work with the

Formative Five, into the academics but are conscious of making sure it all makes sense and that the connections are evident. Larissa and Tanya have learned that they need to be on the same page. They maintain offices in close proximity to one another so that they can maintain their consistency and unification of responses, maintain adherence to the vision and keep open lines of communication with the staff.

Tanya and Larissa recalled that as the development of the vision centered on next generation learning was occurring, they as leaders, needed to recognize that individual staff members were at different places along a continuum. Tanya, the principal at Persistence, indicated, “In a nutshell, I don’t care how fast you’re moving towards our goal as long as you are moving forward.” She noted that even now, if you talked to all of the teams, it would be evident that they are “all over the map as far as implementing a full NexGen model.” While Larissa, the learning coach, described herself as someone who was ready early on to jump on board and to try to make changes, she and the principal recognized that they needed to allow others’ time to observe. As leaders, they needed to assess their growth and work as they progressed. Larissa gave the analogy of a pool to describe the process of implementing the next generation learning initiative. She noted, “While some people are ready to jump in, others are sitting on chairs, and others are dipping their toes or putting their feet in.” While her personal philosophy was “one of a team in which others would be there to pull her up if it wasn’t working, other staff needed to see how things worked before jumping in. As long as everyone was moving a little closer to the water, they were making progress. Those who continued to sit back and didn’t move forward, were those with whom they needed to have some critical conversations.”

Persistence has maintained a Next Generation, individualized learning focus for several years, since approximately 2013. They received recognition as a 21st Century Exemplar School

in 2014. Given that recognition and their reputation as a model school, it has been commonplace for superintendents, administrators, teachers, and school personnel from other schools to observe. Tanya reported that they have had visitors from Japan, New Hampshire, and other places across the United States. Teachers suggested that as many as 600 people have visited their classrooms. All of the interview participants expressed pride in their accomplishments. Larissa and the teachers suggested that this attention has bolstered the belief they have in their practices. These practices are outlined in their Theory of Action displayed in Figure 7 below. Their success and notoriety have contributed to the culture of taking risks, trying new things, experiencing failure and learning from their experiences, and modeling these characteristics and behaviors for their students. Tanya reinforced this view and pointed not only to the visitors and recognition that they received, but also to their achievement scores as evidence of the school's success and the relevance of their vision.

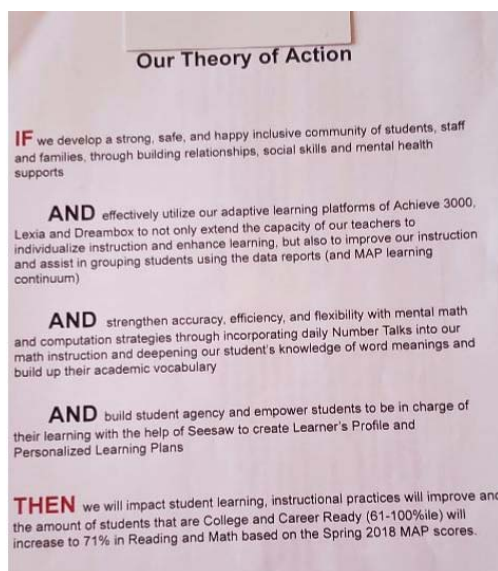


Figure 7. Persistence Theory of Action. The principal, coach, and staff at Persistence developed a Theory of Action reflecting their Next Generation learning model.

Adhering to and pursuing the vision

At Persistence, teacher representatives are also involved at a district level in leadership activities. The leadership representatives bring their learning back to the staff and bring forward areas of study. Many teachers participate in book studies and professional learning over the summer which are then shared with the larger staff on return. While some of the summer learning opportunities are more voluntary, there is also acceptance of topics that are required. For example, on observation of a morning professional development meeting, the leadership team discussed a book study of “Empower” as required reading. The intent of the book study was noted to help teachers make a shift from engagement to empowerment. The leadership team described an additional benefit as the expectation that it may re-energize the staff. The recommended book study was occurring at the same time as several staff members were planning to attend an out of state conference. According to Larissa, Deeper Learning Coach, these activities were being combined as a preface to staff as they looked to reconsider the building vision and any adjustments that may be needed. Other recent book studies included “Innovator's’ Mindset and “Launch.” Larissa explained that the vision of the school had been in place for several years, since they had embraced the Next Generation Learning initiatives. While new staff members had been acculturated to the vision, they had not had voice in developing it. The building staff were at a place to look again at the vision, to reconsider the direction and how to move forward, building off of design thinking. Larissa identified that this process may prove to be a challenge at Persistence as they determine whether to remain focused on the Next Generation learning initiatives that had become a part of their core, or whether they would shift their focus.

At the Achieve Academy, inquiry based learning was selected as a priority for their continuous growth plan. The principal noted, however, that they don't "do inquiry" it is more of the mindset of how they do business, they honor kids questions and curiosities and are always looking for ways to engage and capture students' interests. This view was reiterated by teachers throughout the interview process. Teachers noted that the "Heartbeat" drives the decision making for the school's growth plan. The heartbeat, as shown in Figure 8, was developed by the principal and the staff to describe what they value and to set their vision. The goals they set and who they are as a community both staff and students, is through the lens of "nurturing curiosity and wonder, encouraging each other to be our best and celebrating getting smarter every day." One teacher, Darcy Morgan, noted that all of what they do is grounded in that Heartbeat. Everything comes from that, "it just kind of permeates what we do."

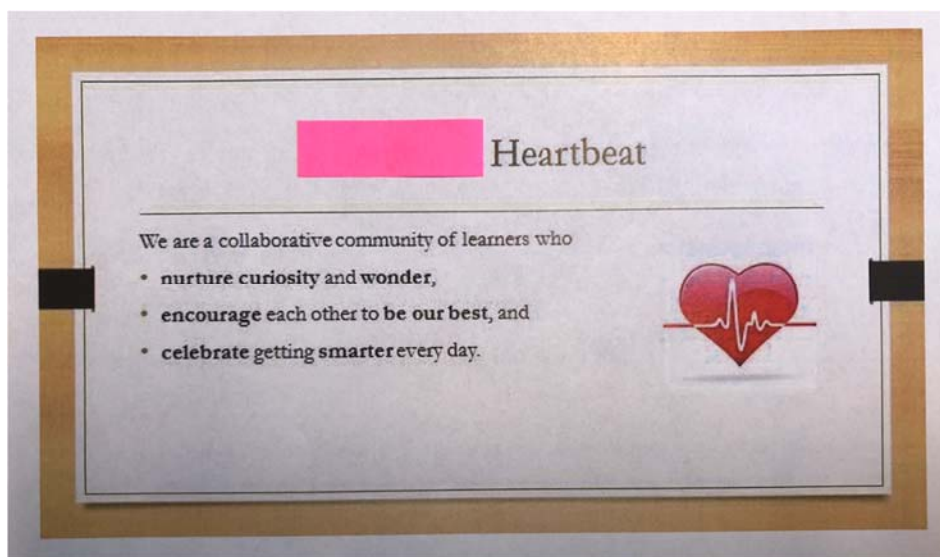


Figure 8. The Heartbeat of Achieve. The "Heartbeat" reflects the focus of the work at Achieve Elementary School.

Clear expectations in pursuit of the vision

In building the expectation and buy-in to the vision, the principal and the coaches considered those individuals who might be challenged to buy in and to change their practices. The process was one of initial learning around inquiry based learning with some people ‘jumping on board’ right away. Nate Somers, principal at Achieve, described his philosophy as one of support and practice, talking and learning, but with a clear expectation that the vision would be pursued. Nate described his expectation that in their goal plan for inquiry based learning, everyone needed to invite him in for a unit they were doing. Those who needed support could have release time with the coach to plan, or observe the practice of other colleagues, co-teach with a colleague or the coach, have the coach model, however, the expectation was clear that everyone would be engaging in the pursuit of the vision, that “you needed to dip your toe in, we’re all doing this.” Nate’s expectations for implementation of the vision extended to, and were consistent with, his expectations for growth mindsets as well.

Developing clarity of goals in support of the vision

Within the inquiry based learning initiative, the leadership, including principals and coaches, at Achieve identified the building goal as focused on goal setting and using growth mindset within that goal. They did not see them as separate entities, rather having a growth mindset would be helpful in goal setting and was a part of that goal. The staff at Achieve were working to develop a common language for students to use consistently, beginning from 4K and extending through 5th grade. At the time of the interviews, they were researching, implementing, and determining the language to be used. Mr. Somers indicated that the building really takes to heart having very consistent language all the way through to avoid having to reinvent, reteach, or

catch students up when they are at the upper grades. It is Mr. Somers' hope the language will be instilled in each student as a person, in terms of growth perspectives as will their ability to set goals that are meaningful to them, which will greatly impact them in the classroom.

Jennifer, a classroom teacher at Achieve, concurred with principal Somers with respect to language. She explained that it "has been really messy for all of us and some of us that are doing a book study on growth mindset have kind of went full in to try it out and are seeing the impacts in the classrooms." Jennifer stated that because they talk and share so much at the staff meetings, a lot of teachers have indicated curiosity and wanting to know more about what their colleagues are doing in other rooms and how they also can incorporate the practices and strategies in their own classrooms. At that point, the leadership team decided that the growth mindset work needed to be common and universal among the building staff, not just in the early grade levels or the upper grade levels. Growth mindset needed to be universal in the building. Jennifer was also willing to share her own learning and described having totally changed her mindset. She indicated she has always been someone who was willing to take risks but had not really used the growth mindset strategies or goal setting in the classroom. Jennifer admitted that she knows that she needs to write down her goals and create a plan, not just verbalize them, in order to follow through on them and hold herself more accountable. Jennifer describes being very aware of her mindset and the change that she has undergone about goal setting and growth mindset. Jennifer explained that she wants her students "to understand that it's the process that they need to understand and continue to go through, that there will be challenges along the way, that some things might not work toward your goal or that you might have to revise your goal or the plans you have set but that's more important the goal itself because that's where they really get in and

learn that mindset language.” Jennifer’s own learning and the discussions she has had with her colleagues have helped her to develop her leadership skills as well.

The Principal and the leadership team’s decision on language and the cross team and grade level collaboration that occurred as a result was impactful and expanded in other ways. Darcy Morgan, second grade teacher, displayed examples of growth mindset and goal setting language in the classroom. These examples provided reminders in student friendly language of strategies and words the students could use. The examples also reflected student focused classroom practices which Darcy reported followed more of an inquiry approach to learning than a coverage approach. She described that this extends across the day and a specific example she gave was with respect to their reading program. Darcy described that the mini lessons that are taught each day are expressed in a teaching point written as a statement. For example, “Today I’m going to teach you that... Today, I want you to understand that readers do this...” One of Darcy’s practices is to turn those teaching points into questions which allows the students to operate from a discovery mode. Instead of authors using text features to help their readers understand, she may pose that question as “How does your author help you understand this book about Tigers?” The students can then search for the answer and try to discover more. Darcy offered this as an example of a classroom practice, however, she also described it as a philosophy, as a foundation of their teaching and learning. Darcy believed this example shows that they are focused on the vision and on the inquiry approach more than just covering content and it shows the extent that the vision has become part of the culture of the building.

Mr. Somers indicated that the book studies they have done have helped to ‘connect the dots’ overall, and have helped them to think about the language and instructional strategies to reach students. Mr. Somers and the instructional coaches reported that they also had an

operational goal to engage in professional learning communities (PLCs). The PLCs provided a structured format for the targeted goal and focus areas. The building leadership also focuses their whole staff learning opportunities on areas that are connected to the school's growth plan. Once the whole staff has developed language and strategies, Mr. Somers posited the structure of the professional learning communities is likely be the most effective manner in developing consistency among staff to reach all learners. The views of Mr. Somers were reiterated by Darcy Morgan, second grade teacher as she stated,

Some of our whole group or staff learning has been about reaching a variety of learners including those living in poverty. So we've done some particular book studies that have that have helped us to think about language and instructional strategies to reach kids. And in that respect, I also think just our whole group, staff learning focuses on areas that are connected to our schools growth plan. I think the more targeted way that we do that is through our professional learning communities. Since every week we are meeting with our grade level partners and math or literacy coaches, we have constant opportunities to be looking at how kids are achieving, who's not achieving, why aren't they achieving, what can we do to help those that aren't and to challenge those that are. So I think that structure of our professional learning communities tends to be probably the most effective in reaching all learners because we really talk specifically then, about each student and what their strengths are and what their needs are. Our school wide goals are connected to goal setting and growth mindset so both of those areas have been areas that we've been working on all year.

Growth mindset was, as Nate Somers described, being embedded into everything and as part of the culture of the building. The learning, collaboration, and development of school wide goals and language have been clearly connected to goal setting and growth mindset which have been subsets of the overall goals of the school.

In a follow-up observation of a professional development session, I learned of the expectation from the district level that school goals were to incorporate measurement of growth mindset. Nate expressed that as a District, if they believed it important enough to focus on, they believed measurement should follow, they should consider progress toward, the effects of and the impacts of their focus. The district focus also included assessment of skills and dispositions, including critical thinking, global competence, well-being, and self-directed learning, of which growth mindset was a subset. These were outlined on a continuum by broad grade level bands, a segment of which is depicted in Figure 9.

Performance Area	Early Years (K-1 st)	Elementary School (2-5)	Performance Area	Early Years (K-1 st)	Elementary School (2-5)	Middle School (6-8)	
Growth Mindset (Disposition) <i>Definition: Demonstrate positivity, ownership and control of one's learning, success and growth</i>	Asks questions to learn more and develops theories based on observations Understands that hard work brings positive results Believes he/she can accomplish a task Copes with challenges Identifies perceived limitations and believes he/she can grow	Demonstrates an understanding that ability and skills grow with effort Asks questions to learn more Lack of success viewed as a product of low effort and/or poor strategy, not external factors and knows that mistakes are an opportunity to learn Responds to difficult tasks with effort Believes he/she can accomplish a task With adult support, students begin to identify perceived limitations and believe he/she can grow	Use of Feedback (Disposition) <i>Definition: Give, take and apply evaluative information and reactions to observable actions or products for the purpose of growth and improvement</i>	Makes choices for learning based on teacher feedback Identifies strengths and areas to work on using teacher feedback Reflects on a learning process or task	Chooses a learning path based on self-awareness and feedback from teachers or peers on past learning Identifies strengths and areas to work on using feedback from teachers and/or peers Selects strategies and tools based on feedback from teachers and/or peers Reflects on progress during learning task	Demonstrates control over how they learn based on self-reflection and actionable, specific feedback from others Develops strategies and tools to be a successful learner based on actionable, specific feedback from others Self reflects and determines what is needed to be successful Plans, monitors, and regulates his/her own learning Clarifies approaches to a task based on pre-reflection	Act act fee tea Art lea ber fee Ap to a li fee Ac wh ch Us ref ple les ret a

Figure 9. Continuum of Skills and Dispositions at Achieve. The District focuses on the skills and dispositions of global competence, critical thinking, self-directed learning, and well-being, which extend from early elementary through high school. This section of the continuum reflects

the dispositions and expectations for Growth Mindset and Feedback, a subset of self-directed learning, for Achieve Elementary.

Communication

One strategy the principals and coaches/director described as assisting in maintaining a focus on the vision was having clear expectations for the staff. Despite the level of input from and respect provided to the teachers, the principals were clear in terms of their expectations of what they wanted to see, when it needed to be done, and in offers of support and resources to get the instructional staff what they needed. Some teachers reported this expectation more strongly than others but overall, the principals were described as having clear expectations for taking *steps* toward implementation. The principals were clear in communicating that they were available to help, to problem solve, or to remove barriers that might impede an individual teacher's progress but the expectation was to progress.

At the Innovation Academy, the interview participants reflected their feeling of a conscious effort toward clear communication that was pervasive and was felt to contribute to members feeling valued and relevant as team members. They felt the commitment to communication reflected respect for all members of the team. In addition to communication through weekly meetings, the staff described the use of circles to bring communities together to address individual needs as well as to bring the larger communities together to communicate on broader issues. Staff reported the circles increased effective communication among staff. They found the circles to be helpful in being able to 'speak their truth' in a safe environment as well as to have their concerns heard. Email communications also supported the frequency and

consistency of communication around the vision and practices. The administrator, Noelle, related pride with respect to the leadership of each staff member and for the implementation of circles. She noted that circles are conducted routinely. There is also a learner on the leadership counsel who is able to set a good example of the circles process and who can model for peers.

Over the course of the interview process, it was clear that in each of the case studies, there were practices and conditions that the leadership intentionally put into place to ensure sufficiency of time to communicate on issues related to their respective visions, to keep the vision in focus, ensure understanding, mindsets, and activities in alignment with the vision, and to convey the importance of and commitment to the vision. In addition to regularly scheduled time to communicate, each school also developed schedules that kept sacred time for staff to communicate with each other, to develop relationships with one another, to collaborate and learn from one another, and to develop a sense of collective efficacy. These practices were central to creating an environment amenable to developing and maintaining growth mindsets among the staff.

Hiring Practices

I previously addressed hiring practices and retention of staff whose philosophies did not match the vision of the schools. The principals, coaches, administrator, and director each responded that the hiring practices they currently employ, assist them in acquiring staff members who already have a growth mindset philosophy, are in paraprofessional or intern positions that allow for development of growth mindsets and alignment with the schools visions, and/or have interview ‘look fors’ and discussions about growth mindsets that reveal the candidates general mindset and philosophy. Each administrator described their process and attempt to hire or retain

individuals who will support the vision in their school. The following section describes the actions of each school in acquiring teachers that match the vision and culture of their school.

Achieve Elementary School

At Achieve, Mr. Somers reports hiring practices that includes hiring certified teachers as paraprofessionals. Mr. Somers reviews the candidates who had not been hired by the district and hires them for paraprofessional positions. In that way, he acquires highly skilled paraprofessionals, while also training candidates for future teaching positions. These professionals then have been acclimated to the culture of the building as well as the philosophy and the heartbeat of the school. Mr. Somers reports that the critical factor in the hiring process is a person's disposition. While anyone can learn, Mr. Somers believes it is extremely important to identify and hire individuals who "really like kids." Mr. Somers reported that this is true for the district as a whole. The District and Mr. Somers both truly believe in building relationships and in the research behind the idea that learning occurs when people feel valued.

According to the leadership at Achieve, both the principal and the coach, indicated that new teachers do not have to unlearn anything and they do not have any issues with following the direction of the administration. Veteran teachers have generally been willing to change their practices. Mr. Somers, principal, indicated there has been only one staff member, since his tenure, who was not a good match with the building philosophy. Although some of those veteran staff took more time to adjust to the direction and vision of the building, both the principal and the coaches recognized and understood that this was likely due to their adherence and dedication to the longstanding practices that had been "working" for them. Mr. Somers and Zoey, the learning coach, both acknowledged that these veteran staff have come along, aided by the

enthusiasm generated by being featured in two educational books (shown in Figure 10 below) and multiple visitors to the school to see their colleagues' practices in action. The principal described it as "akin to a train, and if they didn't join on, that they would be the 'oddball' out."

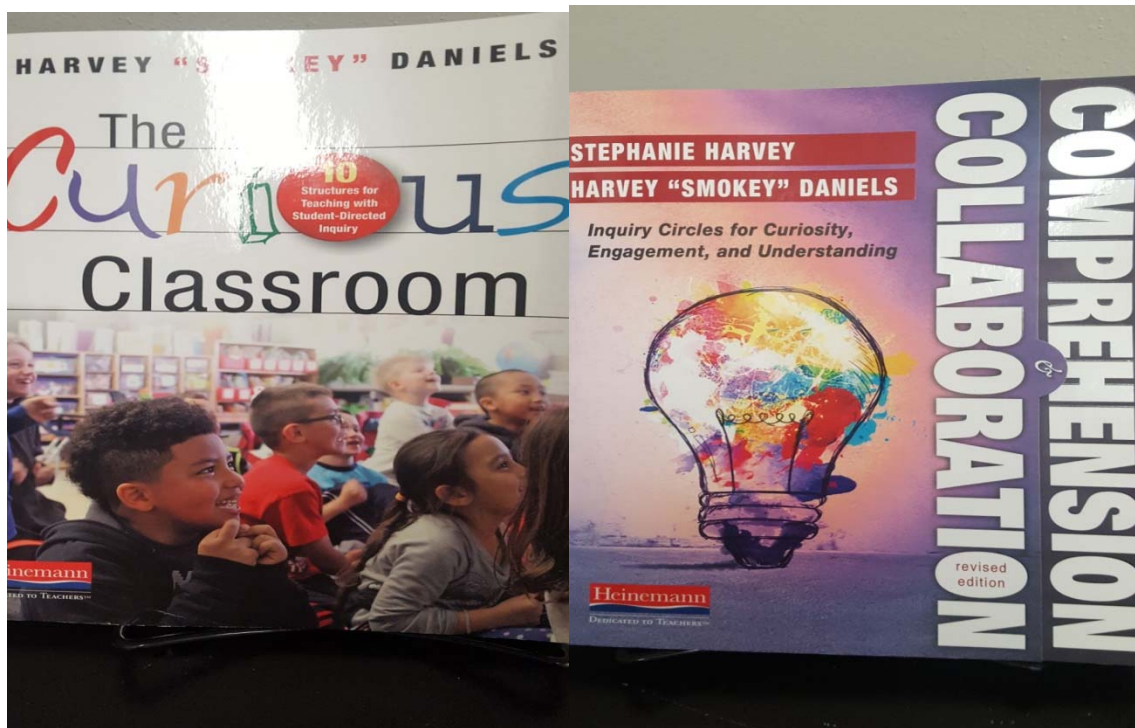


Figure 10. Books featuring staff practices at Achieve. Staff and students at Achieve Elementary gained notoriety for their student focused learning framework and inquiry based practices of “honoring kids’ curiosities.” They were a featured school in these books. (Daniels, H. 2017; Harvey, S. & Daniels H. 2009)

Darcy, teacher at Achieve, indicated that there is no turnover at their school. “None. If people believe in this, they are staying.” According to Darcy, Achieve used to be a single section school when she was an administrator so there are some teachers have been there a long time. Darcy explained that it grew really quickly, as a result of people believing in what is happening

at the school, and as a result of the support of the administration, central office, and parents.

Darcy believes that the community trusts the school to do what is best for kids.

Persistence Public

Tanya Woodworth, principal at Persistence, accesses additional teachers through the use of interns, four in the fall and four in the spring. While interns gain valuable experience in teaching, they also acquire the philosophy of the Next Generation learning environments and the dedication to the vision of Persistence. The interns assist the teachers, increasing the number of adults to students. Tanya reports that the ratio then supports the facilitation of personalized learning and the ability for the teachers to flexibly group students. Persistence has combined grade level classrooms and physically opened walls among the classrooms to enable teachers to collaborate and team across grade levels, to address content standards across grade levels, and to more easily allow for learning progressions that don't always align to the standard grade level structures.

Tanya explained that Persistence has access to hiring these individuals who have already been trained in the practices and culture of the building. Tanya has developed relationships with some of the more local or regional colleges and universities and thus accesses candidates of choice for the internship program. Tanya described the candidates for interns as the "top of their class" and that the colleges and universities let her know when they have candidates that "are good enough to be interns." Tanya recalls that "in the good old days," fifteen years ago, they were using interns at another school in the district. "The principal would give the student teacher or intern to the 'lousiest' teacher with the hopes that the class wouldn't suffer." Tanya now says, "Absolutely not. You are going with the 'best of the best' and we are creating the best we can, so

that they can go out there and make a difference. If the teacher is lousy, that's my job to get them out and I've had people fired because they just couldn't do it. Those are the expectations and everybody agrees to them." Larissa portrayed this view a little more delicately stating that there were teachers that weren't ready for the changes, "not that they weren't great teachers, but the way that we were teaching and the pace that we were teaching at for that sense of urgency, they perhaps were just not the right fit." In those cases, Tanya had to have some crucial conversations to encourage people to really reflect on their practice.

Although Tanya might not always agree, she leans toward the teachers' selection for the candidates for interns. In terms of hiring candidates for teaching positions outside of interns, Tanya shows candidates some of the learning environments, for example, the performing arts/auditorium space that has been modified to be a large size classroom and the cafeteria, which serves as an instructional space. According to Tanya, the candidate's reaction to, and perspective on, these "unconventional" learning environments has been a useful gauge and indicator for hiring teachers. Tanya believes that viable teacher candidates have to make a mental shift from traditional classroom environments to the ability to envision alternative classroom structures and teaching practices. If the candidate's reaction to these environments suggests they cannot make that shift, they are less likely to be hireable candidates. Tanya reports this reaction is often a determining factor and she can tell rapidly, within a few seconds, by their reaction. Tanya explains that many candidates who can make that shift in thinking will ask questions and provide a sense of whether they can picture themselves in that space and what their mindset is. Tanya did not endorse any particular teacher characteristics, whether veteran teachers or teachers newer to the field, in terms of their ability to change and subscribe to growth mindsets or building

directions and initiatives. She believes they just have to be open. The test again, is watching their faces when they walk into the nontraditional learning spaces.

Tanya reported that of the 30 staff members that were present when Tanya came on board as principal at Persistence, only seven remained. With respect to these veteran teachers, Tanya indicated that many left via transfers to other buildings or to different districts. Of the thirty, she had to encourage two to leave. Tanya endorsed that she does a lot of “marriage counseling” and is very honest with her staff. For example, she had a team that wanted to be a four person team but who were struggling to work as a team of two. Tanya talked with them about needing to get the team of two working better before going to a team of four. At this point and with the staff she has, Tanya reported that growth mindset is always there. When things don’t work, they put their heads together and come up with something else. Tanya heavily encourages the teachers to problem solve. Tanya also has had teachers transfer into Persistence because of the philosophy of the school and the Next Generation learning emphasis. Tanya indicated, “People just kind of find their place I guess.”

Innovation Academy

When asked about hiring practices at the Innovation Academy, Noelle reported that she specifically talks about growth mindsets in the interview process. Noelle also said, “We specifically talk about being trauma informed, understanding who our learners are. We specifically talk about being an innovative thinker. We talk about our model and we say you have to be willing to let go of everything that you know.” Noelle explained that the first cadre of people that she brought to be part of the staff were people that she knew had this mindset. Noelle then also hired people from the outside. During the interview process, Noelle was very clear in

stating that “this is really hard work. We will challenge you. You will be rewarded because you’ll feel really good about what you’re doing.” Noelle believes that they are very clear at the very front of the interview that this is not your typical school experience.

Noelle described that in the design process, the group members at every level of input figure out *how* to make the part fit instead of taking the perspective that the part either fits or it does not fit. Noelle previously worked in districts where the mindset was very fixed, there was no room for innovation or thinking differently about anything. “It was very compliance based and anybody that came into that, especially a new teacher, that’s the mindset.” Noelle shifted to a nature versus nurture stance. She described herself as a bit more growth mindset by nature and had people that nurtured her along the way. Noelle explained,

Then when I found that I was in an environment where I wasn’t allowed to be the person that I really felt like I was and I couldn’t conform, it was so strong in me, I couldn’t conform to that. I had to seek a different position. I couldn’t continue to work there because you know it defined who I am so it’s maybe a little bit of that nature versus nurture. You put a new teacher into an environment where they’re going to develop that really fixed mindset if that’s the culture of where they work and who they work with. They’re not going to be happy. They’re going to leave if they can’t influence that larger piece because it’s so strong. That’s where the leadership really has to be strong in that right, because they can set some of that tone to change the culture. To change a culture takes time which is one of the jump starts I have here. I could bring a group of people that I knew were fixed or that I knew were growth mindset and then I could bring everybody else in, which was really useful.

Noelle reported trying to get at the candidates' mindset in interviews by talking about it, however, she felt this was not always a solid success. In the interview process, Noelle looks for people who like to 'think outside of the box,' who are innovative and extremely flexible. According to Noelle, strong candidates for the Innovation Academy must have a positive attitude, be able to celebrate accomplishments, and be reflective. Noelle also talks about VT, or vicarious trauma. She describes the challenges that the learners at Innovation can present, that it is hard work and that the staff need to recognize that means sometimes they may need to take a break or do something different.

Noelle described the student teaching experience as heavily dependent on the experience and perspective of the student teaching supervisor. Noelle recalled the intern program she developed in the prior district, the district which Persistence is a part of. In that district, she started to hire interns, not just student teachers. She described that they cost "pennies on the dollar" as compared to what a teaching position would be and they could give the interns more experiences. From that pool of interns, in Noelle's view, they tended to get the highest quality people coming out of placements. The universities would give them candidates of high quality and then the school was able to interview the candidates versus just getting a student teacher assigned. This allowed the school to acclimate the candidate to the school. Noelle reported hiring several interns herself at Persistence when she knew she would have openings the next year and the candidate would fit the model. Noelle felt she already had a "snapshot" as to their fit. When she went to the district level, Noelle recalls expanding that process across the board. Noelle also believed there was a reciprocal influence with the university. The university identified and placed its best candidates to the school/district. The school provided feedback to influence the university with regard to the mindset desired in the candidates.

In addition, Noelle said both she and Krista are very clear that their goal is to really scale up and to impact more than just the learners. Part of the plan at Innovation from the Board and Noelle is to become a model lab school. They want to be able to teach others and have other people come in, look, and say they want to do what Innovation is doing. According to Noelle, “Everyone has signed up for that and they know when they’re signing up for it.” Noelle shared that she needed to put one of her coaches on a professional improvement plan. While this coach would likely be a fantastic coach in a different environment, Noelle stated that the coach was really struggling in maintaining a growth mindset and was engaging in very deficit thinking about a particular learner and it was impacting everything that was going on. Noelle described having a very in-depth conversation about how her actions were impacting the learner’s skills and dispositions and who the student was. That coach did some reflection and ultimately agreed. According to Noelle, “You know it helped her dig out of that thing because you know when you get into something tough, isn’t it always easy to take that glass is half empty standpoint or the fact there’s a fixed amount of glass or fluid in the glass so that was really pretty cool for this coach to kind of be coming around. Now she’s the one on the big upswing and really getting into people and challenging them by saying, “Hey have you thought about what the learner was thinking about first?” According to Noelle, it has to be very significant and glaring for her to bring an issue back to an individual. It is more about how they are impacting on the achievement of their learners. It is more about the interaction and the relationship that they are having because that’s what really impacts the learner.

Krista Paulson, the Design Specialist, acknowledged, “We have a challenging population. It takes a lot of emotional stress as well as just teaching expertise to be able to work with the population that we do all the time.” Paula described that when new staff come on board, they

spend about two weeks in orientation, job shadowing other people. The new staff members set up their profiles for themselves so that Paula and Noelle get to know them right away. Then, the new staff learn the essentials of their role. New staff meet with Noelle regularly to ensure they have the vision solidified. They also meet with Paula frequently to acclimate them to the basics. For example, Paula defines for them what it means to confer with learners, and how to align goals to interests and to competencies needed. Paula explains, “Of course they move right into our design sessions on Fridays which is where most of their learning happens. When you hear the high level conversations that our staff are having, and just the deep thinking about every learner, and how we're going to get them to their next best place, you start to develop that mindset. Either you're going to know right away that this is not for you or it's a perfect place for you.”

Paula went on to say that Noelle's interview process is pretty unique. According to Paula, Noelle probably does 50 percent of the talking whereas in traditional interviews, it is a question and then the candidate talks, and then it is a question, and the candidate talks. Paula explains, “Noelle wants to make sure that when candidates leave the interview, they have a really good solid sense of who we are, what we see going forward, how we function with the learners at the center, so that they can also choose us not just us choosing them.” Paula stated, “We actually just had a candidate last week that after going through that said, you know, I love everything you're saying I just don't think I could get there in the timeframe that you're going to need me to get there.” From Paula's perspective, that was great, she appreciated that.

Paula indicated that they did not differentiate hiring or orientation practices between new and veteran staff. According to Paula, “All hires go through the same orientation process. If you think about our structure, our learners come in and they spend 30 days in orientation. The

orientation is about “How do I become a learner? How do I know who I am and what I want to become? We do the same thing with our staff.”

At the Innovation Academy, Naomi Jackson, the learning specialist, noted that everyone who works here came here knowing the types of disparities that they would face. She felt that everyone is in the right mindset. Everyone comes in knowing and enjoying working with the types of learners they have. Naomi values the opinions of her colleagues and believes they value hers. There is not really anyone working there with a mindset that needs to be changed. She believes Noelle only hires those with open mindedness. Everyone at Innovation is wanting to learn, to make a change and to be supportive of each other.

Culture

A second theme that emerged from the interviews was that of the development of a culture that encouraged and supported the development of growth mindsets among the staff. This culture enveloped the personal philosophy of the principal or administrator who not only clearly communicated expectations for growth mindset development for the staff and professional growth for the benefit of students, but also modeled growth mindset perspectives, expectations, risk-taking, and collaboration for the staff. The expectations that the administrators set forth included professional collaboration and professional risk taking to improve teacher practices without fear of failure or other repercussions. The primary driver was developing and promoting a culture of collaboration in which teachers observed each other, learned from one another, and took visible risks in their practices to allow them to learn from their mistakes and their colleagues to see vulnerabilities within their practices. Administrators also provided professional development opportunities for teachers to increase their knowledge and learn

together. Professional development opportunities often provided an avenue for teacher development of leadership skills and for relationships to strengthen.

Growth mindsets were described as being embedded into all of their work and as part of the culture of the schools. The cultures of the three cases varied slightly but all subscribed to growth mindset as embedded. All reflected a departure from deficit language and ideology as a part of the culture shift and an increase in focus on individualized or personalized learning and developing learner agency. Respondents in each of the cases, reported feeling increasingly comfortable in taking risks in their instructional practices and strategies, in learning together, and availing themselves to the vulnerability of learning in front of and with their peers and of not being the expert and thus further developing their own mindsets.

In this section, I will explain further the practices that provide the basis for development of cultures and environments conducive to staff reflection on, and development of, their own growth mindsets. The theme of culture, as depicted in Table 5, will be explained by discussion of collaboration, modeling, risk-taking, professional development, leadership and supportive practices as arranged school by school.

Table 5. Theme of Culture and related subthemes

Depicts the themes and sub themes derived from the interviews at Achieve, Persistence, and Innovation.



Modeling was a distinct feature in each of the cases as was an emphasis on collaboration with one another. Both modeling and collaboration reinforced growth mindset attitudes, encouraged professional learning and risk-taking among colleagues, and supported the development of an environment and culture where growth mindsets were expected. Modeling occurred at each position or level within the structure of each of the schools. At times the principal and the coaches modeled, at other times, members of leadership teams modeled for their colleagues through in-service opportunities or in their classrooms. Teachers and learning coaches also modeled practices, expectations, and language to each other and to the students in their classrooms. Some specific examples follow to highlight the importance of both collaboration and modeling as practices that supported growth mindsets among the leaders and their colleagues in each of the case studies.

Developing an environment of collaboration

When the principal, Nate Somers, and the instructional coach, Zoey Dirks, started in the Achieve School, they indicated there was an environment of social collaboration. Over time, this socially collaborative environment evolved into more than social interactions and became more professional in nature. The leadership reported building on the strength of their staff's feeling of family togetherness and then added in the academic and leadership components. Mr. Somers reflected that he and the staff saw the need to do something different and they were willing to embrace the change. He feels the staff in his building are extremely collaborative. His desire is for them to feel like it is their building, not his building. He has encouraged an open door policy for teachers to go into each other's classrooms on their own. He supports this as much as possible and assists them if they need help in setting it up or in finding coverage to ensure that it happens. Mr. Somers indicated that in this process, they intentionally taught how to talk with

each other to attain a level of professional collaboration as they built on that sense of ‘family.’ They were intentional about helping the staff to learn to collaborate on a more professional level. They started with the lower grade levels and progressed up the grade levels. All of this occurred within the context of the school’s Heartbeat and honoring student curiosity. Nate reiterated that if your internal dialogue was saying, “my kids can’t” do book club or whatever the activity, then your next question should be “what should I do so that they can.” This philosophy extended to staff learning and collaboration in that if teachers were saying I can’t, it was up to him and the coaches to remove barriers so that they could.

Zoey Dirks emphasized with the staff that she was learning alongside of them, growing with them, not that she was the expert. Her mindset is that she is not coming in to fix anything. She is working with teachers to grow their practice and as a result, she grows her own practice. She offers to help them in the way that is the most comfortable for them, which could include co-teaching lessons with them, covering their classrooms so they can observe others, teaching lessons for them to observe, or co-planning lessons. Both Ms. Dirks and Mr. Somers indicated that this non-judgmental, non-evaluative approach encouraged the teachers to take risks in their own learning and instructional practices and allowed the growth mindset of the teachers to “take root.” Ms. Mason, math coach, shared the view that they were learning from each other and getting better together, and that they coach each other within their professional relationships. Ms. Mason reflected that “when people ask you thought provoking questions that help you to dig a little deeper within yourself for an answer to something challenging, the experience helps to empower you and to guide you to the idea that the answer is within you, rather than outside of you.” The leadership message was consistent in the idea that they learn along with and alongside their teaching colleagues. They take risks together, make mistakes together, and sometimes they

fail together. Though this process, they not only develop skills but also build growth mindsets among the staff.

Developing safe environments for professional risk-taking

Teacher respondents echoed the administration in the perception of having had a collaborative working and learning environment as well as being continuously open to learning new things, believing that they can continue to learn and grow and impact their students. As one teacher, Darcy Morgan, noted, “I don’t know a single teacher in our building that’s not continuously open to learning new things and that’s pretty powerful I think. We are all in that mindset of wanting to do better and wanting to learn more; we do a lot more classroom observations than we ever did before.” She noted an increase in observations of colleagues, whether facilitated or spontaneous, to see each other teach a lesson or view what another teacher was doing with a particular unit. There was no sense of being judged in these situations rather they described an open, collaborative, climate that allows for professional risk taking. Another teacher Jennifer Johnson, noted that the leadership supported them in doing what they feel is right for students and in taking risks. If something isn’t working, the principal doesn’t make them feel like they made a mistake, or that making a mistake is bad or unforgiveable, rather he trusts them to learn and grow from the experience. The teachers felt trusted to make classroom decisions and supported in “thinking outside the box” and that this level of flexibility was allowed by the principal.

Teachers’ interview responses mirrored those of the coaches and principals with respect to encouragement and expectations of stepping out of their comfort zones and taking the risk that things might not go as expected or desired. This sentiment was shared across the three cases. One

example, came from Pat, Jackie, and James, a fourth and fifth grade teaching team at Persistence. They shared that the principal made them feel comfortable with and willing to take risks to try new things, to be open to fail, to try again, and to reflect on the experiences. They saw Tanya as supportive enough for them to be comfortable with her in the room at any time, as well as all being comfortable with the presence of the visitors that they have had. They model risk taking and acceptance of challenges with their students. These teachers model the expectation that there are challenges to face and that those challenges help them to become more flexible thinkers and to grow their intelligence. They model the language in the classroom that has been modeled with them by the coach and administrator.

As they developed their models of professional collaboration, the principals and coaches/leaders recognized that they needed to establish relationships with the teaching staff and develop trust with the administration and with each other. Teachers reiterated the emphasis on relationships as it applied to their classrooms, emphasizing the importance of developing relationships with the students first and as being at the heart of the learning that happens in the classroom. Just as they, as adults, need to feel safe in their learning, they recognize that students need to feel that the classroom is a safe place to take learning risks. Learning might look ‘messy’ but they see that there is value in that learning struggle. The development of professional relationships and trust assisted the adults in their learning and willingness to take risks. The teachers see that same value with building relationships with students so that they also can take risks in their learning.

Modeling

Modeling working through challenges, trying new things and taking risks began with the coaches and principals. They took risks in front of the staff and when they ‘bombed’ they modeled it as a learning experience. The teachers are encouraged by the coaches to step out of their comfort zone. Instructional Coach, Zoey Dirks frequently asks, “What’s the worst that could happen? It doesn’t go the way you want it to go?” The instructional coach and the principal report that they model their thinking with teachers who then model that with their own classrooms and students. This modeling includes challenges they encounter and that those challenges help them become flexible thinkers. The philosophy that Zoey subscribes to is that they need to have fun, let go, and take risks. I observed this nonjudgmental processing approach during a professional development day at Achieve Elementary, when a teacher requested support from the coach. The coach reframed the teacher’s scenario and in processing, asked her what the worst thing that could happen was. She provided alternative examples to her thinking to consider as they processed what the teacher was trying to accomplish, and what effects the barriers and various options had on reaching the goal of the lesson/activity.

The teachers at Achieve reported that they valued the ability to seek out help from their colleagues. They feel Achieve provides a safe environment and that they are not so ‘siloe’d’ as they had been in other environments. Jennifer Johnson shared that some teachers have “put her on the spot” at times when they acknowledge her work and express that she is doing great things in her classroom in terms of the language and actions she is taking. As a result, they encourage her to share out her experiences with everyone. She described that she has been trying to do more of that but as she is getting acclimated to this practice, she is starting with the people she works closely with first. She appreciates that she has been able to share what she is doing, it has been

well received, and that other teachers are ‘right there with her’ in terms of sharing. Jennifer described that it’s nice to hear the modifications or strategies other teachers are using as well. She appreciates that they can just collaborate and get together to ‘tweak’ the language or come up with activities to teach around growth mindset. Jennifer says she has enjoyed learning this way, although, there is still some risk in sharing everything and not knowing if you are doing things the right way. She said, “I guess that’s the point, it’s all about how comfortable you are and the risks that you’re willing to take.” Jennifer described teaching as isolating at times, although she appreciates that they have more opportunities available to collaborate at Achieve than she has had at other schools. Darcy Morgan explained the structure that enables them to collaborate across grade levels and teams. She described that they are with their junior Kindergarteners as expert coaches on reading, and frequently with the first grade students. They also go to the third grade students at the beginning, end, and at the launch of all of their units so that they can teach the other students something new and can share what was learned. She believes the students see them as very collaborative group of people and that they really ‘walk the walk.’

The interview participants at Achieve expressed appreciation for their building leader as someone who has a growth perspective, who is willing to allow teachers to take risks, who believes that it is okay to fail and who is open to teachers needing to grow. The alternative experiences described by some in previous positions and schools, reflected leadership who were more task oriented, rather than putting a higher emphasis or importance on growth of the staff and students. Leaders in those scenarios were described negatively, as getting down on teachers but without providing any ways to improve. Those situations were described as creating, or at least contributing to, a negative atmosphere. In those situations, the leadership practices also did

not result in a push for growth in the school. Teachers, coaches, and the principal were all consistent in their message that the teachers were invested in improving their practice and that they did so by trusting each other, by taking risks, and accepting challenges in their learning.

Reflecting through coaching and peer observation

Just as the students are allowed to follow their curiosities, staff at Achieve are also able to have some voice in what they are learning about. In addition to professional development opportunities, the teachers voiced appreciation of learning through the coaches' feedback. One of the teachers, Jennifer Johnson, indicated that working with the coach forces you to do more reflecting on your practices and as a staff, they have become more reflective because the coaches instilled that in them. The approach is that the coaches are there to help the teachers, not to give them answers. Through the reflection process, they determine next steps based on the needs that they identify. Jennifer indicated that she found herself repeating the same process with her students, again modeling her learning to enhance the learning of her students. Although it can be stressful, Jennifer stated, "At the end of the day, you get out of it what you really wanted and it wasn't somebody telling you, it was just like you knew it all along but you just needed to go through that reflective cycle first."

The instructional coaches are engaged weekly, if not daily, in conversations about student learning, analyzing student work, and making plans for next steps, with regard to instructional adjustments to meet student needs. The staff at Achieve describe one another as very open and collaborative such that teachers are seen working together and collaborating on ideas and developing experiences for students on a daily basis. Darcy Morgan described their work as really getting at the mindset question and noted that it is probably more important than anything

else. Like most teachers, she feels they are overwhelmed with responsibilities and initiatives that get added to their routine expectations, however, she reiterated her view of how powerful it is to have teachers who are willing to learn new things. They are unified in their mindsets and desires to do better, to learn more. She observes her colleagues several times per year to get more ideas and finds it helpful; others come to observe in her classroom as well. The lack of judgment and the open invitations to observe one another help to create a safe environment for learning together and from each other. Darcy described this as an ‘organic excitement for continuous learning’ and the staff then portray that excitement with each other and with the students. “There is a lot of vertical planning in that way that naturally happens, where maybe a group of teachers will get together one, two, three, to decide something” according to Darcy. “There’s also a lot of organic things where a teacher might be inspired about something, start to learn about it, and open it up to other people, “I’m learning about this. Are you interested in...?” Darcy continued, “So organically, there are some opportunities that sort of naturally occur for collaboration.” This year, Darcy relayed that as they focus collectively on goal setting and growth mindset, the professional learning is centered on these topics and the conversations in their professional learning communities are through the lens of growth mindset and goal setting. The administrators and coaches are always available to facilitate and support them in the conversations and in the actions that follow. These emphases were felt to have the potential for long standing practices. If Mr. Somers were to leave, for example, the continued success of the practices Darcy felt, would depend on whether the staff would still be given the type of flexibility they have had and the structural support for collaboration and innovative strategies.

Collaboration, feedback, collective efficacy by design

At the Innovation Academy, Noelle James and Krista Paulson, Administrator and Design specialist, expect innovation from the staff. They seek innovators in hiring new staff and they regularly communicate and encourage new approaches. Noelle describes the need to examine traditional approaches and question whether they are strategies and practices that are learner focused or teacher focused. Often, Noelle believes, the traditional practices are more familiar or comfortable for the teacher and are less learner centric. Noelle and Krista encourage the learners, coaches, and specialists to bring forward ideas and approaches to the design teams. The design teams examine ideas through the five layer process prior to implementation, working out barriers and ensuring learner interests are served. Following implementation, Krista and Noelle have designed the process to include a feedback and reflection loop. They communicate the expectation for teams to try new approaches and to bring the experience back to the team to reflect on the implementation, share feedback or results, and obtain feedback from their colleagues. This provides everyone with an opportunity for feedback in the form of sharing and discussing how colleagues implemented the strategy or concept.

Learning Specialist David Scott described the collaborative processes at Innovation in this way, “It’s like when you’re just one person, it’s like your power, the pebble you get to drop dead in the pond isn’t that great, but when you get a whole group of people who are wanting to push the boulder in, you can start to have waves flow out.” David added, “My mindset hasn’t changed but the possibilities have expanded exponentially.” David also reflected on his work outside of education. In his business experience, he found that more of his colleagues were asking if you needed help and there was a lot of working together. David’s early experience in education was different as he described that people weren’t talking to each other, they were

almost working against each other and principals were coming to check if you were working. At Innovation, David finds a more collaborative environment and one in which he is surrounded by people who think similarly to him. David tries to be positive and encouraging to colleagues and acts as a sounding board when they are stuck (fixed mindset) with a student. David explains that when somebody has a little more of a fixed mindset or when a student is ‘just burning you out,’ he feels “it’s because you’re looking at the tree, you’re not looking at the forest. It’s time to step away and breathe again.” David feels that is pretty powerful and believes there is an expectation that everyone should be doing that for everybody all the time. According to David, “If you don’t have transparency and honesty in the team and your team members, you’re not going to get very far.”

Collaborating through professional struggle

Krista Paulson described the collaborative practices and modeling from the design lens. Krista stated her perspective as follows. “One of the things that Noelle always interviews for is, we call it a ‘professional struggle’ and we actually really embrace professional struggles within our organization. There is always something to be learned when somebody disagrees. There is either a perspective that we haven’t thought about or maybe a workload balance or something like that. There is always something to when somebody disagrees so we never dismiss it. We always listen to it. We try to figure out what is really at the heart of that professional struggle that we’re finding ourselves in at that moment and then we design around that.” Krista described that within their five layers of input, often she and Noelle will start with a professional struggle. Krista reiterated that Noelle sets our vision for us identifying, “Here is where we want to go. This is what we want learning to look like for everyone here.” Krista will then say, “That sounds awesome. Our capacity right now doesn’t allow us to do that whole thing, so what can we

compromise on?” According to Krista, she and Noelle have professional struggles all the time. Krista noted, “We have the same vision and the same mindset but we approach it from different entry points, which makes us stronger. As I’m working with staff, I will say Noelle, they are having a professional struggle around this right now. We are still coming to terms with what this means and what it could look like.”

Krista explained that they share those struggles with the staff so that they also feel comfortable having those struggles, having and voicing their opinion. Krista and the staff take the struggles through the 5 levels. As they continue to bring more people in, more questions arise. Team members ask one another if they had considered various angles and perspectives. According to Krista, “We listen, we make concessions where we can, and you know sometimes there is just that I hear everything you’re saying; we need to make this happen. This is the next best place for us.” She feels they get all the problems out in the open and all the disagreements and then they have to ask what they will do to move the decision/action forward. Krista explained, “I think because we have that level of transparency all the way through our organization, by the time we get to a resolution, we have consensus and it is always moving us forward and that’s a piece that I think when we focus on that, is the most important part.”

Krista indicated that sometimes they have to determine what part, if any, they can do if the initial proposal is not feasible. Given the new parameters, the staff repeat the design process.

Noelle and Krista have scheduled time weekly, on Friday afternoons, for the staff to meet and work through the design process. Despite the fact that it is the end of the week, the staff and leadership have their heaviest, most taxing thinking work set aside for these meetings on Fridays. It is designed that way based on the residential schedule for students, when visitations and home

visits occur, so the learning staff and specialists are more available to convene. While they may frequently disagree during the design process, it is not true disagreement. According to Krista, these disagreements are generally difficult issues to address. Although the conversations are not easy, they are important to process through.

Modeling through reflection and self-awareness

Removing the design process and reflecting from a social emotional, self-awareness perspective on modeling and leadership, Paula reported that all of the staff complete learner profiles or professional profiles themselves. The profiles for staff provide an avenue to get to know more about the staff. Krista or Noelle discuss their learning modes and how they like to get information. They also discuss the leadership skills that the teacher brings and in which areas they could step up a little bit more and stretch themselves and where they should let others take a little bit more leadership. According to Krista, they use their profile all the time in these discussions. During the meetings, Krista often has the staff engage in reflection. Paula describe the tools they use, including the ‘Zones of Engagement.’ From this tool, she asks the question, “Where are you right now and how engaged are you coming into this meeting or where are you when going into a conferring session with your learner?” These questions give Krista a temperature of the teacher.

Krista described the life cycle of a teacher as starting with anticipation, evolving to disillusionments, then moving to a stage of reflection, and then going up again. Krista explained that not everyone is entering the meeting in the same place. While she might be super excited about what they are planning to discuss, some of the staff will be in the disillusionment stage. They may have had some challenging days and are just trying to get through. She and the rest of

the staff try to respect the emotional space that each member is in as they come into the meetings. The reflection and engagement tools assist in self-assessment and recognition of the staff member's current perspectives. These are useful not only for the weekly meetings but also for staff members to use in the conferring sessions with the learners. "I think it is super powerful and having that self-reflection and that self-understanding of where they are, I think then transfers to them having those same conversations with their learners" Krista explains. The staff may then use the same strategies to help the students to really engage in learning. Staff members may start with, "Where is the learner right now?" "How do I get them to that regulated, good state, ready to learn?" These are important questions. Krista's expectation is that the coaches and specialists will take that self-reflection, self-awareness, and self-regulation assessment back to the students and model the language with them so that they can also implement strategies to recognize and regulate themselves.

The staff, both coaches and specialists, reported appreciated for 'bouncing ideas off of one another' as they are trying to get to the same goal. Learning Specialists noted they were in a constant cycle of reflection and 'circling back around.' One Learning Specialist, David Scott, explained that everyone can benefit from feedback. "Sometimes you need another set of eyes, another lens to look at how to know what is/isn't working and how/what can I try differently." He appreciates this feedback and the environment it occurs in as he indicated he did not feel as though he was in a 'siloed environment' as he had been in other teaching positions. David believes he is surrounded by people who are more similar in philosophy to him than had been the case in other settings as well. This belief was based on the unified vision, as well as the collaborative processes in place. In his view, everyone was working together, in collaboration, and that "everyone is rowing in the same direction."

In addition to the feedback and reflection cycle, Learning Specialist Nora King, appreciated learning from her teaching partner, Naomi. Nora benefited from discussions with Naomi as well as from the skills Naomi modeled as she responded to and managed situations. Naomi and Nora both spoke to the collaboration that occurs with regard to their own learning within the organization and outside of it. They described the professional development model of going to conferences or functions and bringing back information and ideas to their weekly meetings. They take that information and work through the five level process. This process engages all of the staff in learning, in considering new ideas, and in implementing strategies or approaches. Nora King also described the environment at the Innovation Academy as encouraging and supportive of shadowing other coaches or observing other learning specialists as a method of developing their skills. The environment at Innovation was safe for staff to engage in that type of collaborative experience.

In addition, the staff at Innovation are provided with articles to review regarding, for example, running morning meetings and strategies to run circles more effectively. They connect in meetings to discuss their readings, collaborate with one another, and to give and receive feedback on what worked or did not work, and what could be done differently. Circles are often used to create dialogue, to problem solve, and to model and practice strategies and skills. The Wellness Specialist conducts one community circle each week with each of the communities and the coaches conduct circles each day. The circles help build a sense of community and “get anything out there that needs to get out there.” According to Krista, “The Wellness specialist puts together all different kinds of circles that the teachers or the coaches can then lead when they are noticing that their learners need to have collaborative practices and they don’t really have those in place, or consensus making, for example. So our Wellness Specialist not only acts

as a specialist for students but also as a professional development specialist for our staff in how to do that.”

Modeling through co-leading and co-teaching

At Persistence, Tanya’s approach is one of respect and encouragement of teachers to take the lead on influencing others. At the same time, Larissa describes her approach as starting with relationships, understanding the perspectives of others to aid in attaining teacher buy in, so they are able to take advice and feedback seriously. In her role supporting Tanya in carrying out the school’s mission, Larissa describes Principal Tanya as her “work wife.” They are partners in leading the staff and it is important for staff to see them co-leading. Larissa reflected on the observations during the interview process and agreed that everyone is co-teaching with someone. Therefore, it is critical that the teachers observe she and Tanya modeling what co-teaching or co-leading looks like at the building leadership level. In addition, Larissa believed it important that the teachers understand they are working with them, that they will be working together. The team collaboration approach is something they have worked on over the past five years and Larissa believes it is to a large degree, where their success can be attributed. This is also what she values most in her leadership role, that of being a working member of the team. Leaders at Persistence commented on the high level of energy they put into problem solving together. They also reflected positively on the collaborative efforts of the leadership team and teaching teams serving in the building.

Tanya and Larissa explained that often, they put together ideas and give teachers the choice of what they want to try first. When they present to the teachers, they model it as they would want the teachers to present to the students. This is true regardless of the format, whether

they are at staff meetings, goal setting meetings, or problem solving meetings. Everything is “modeled, modeled, modeled.” Both Tanya and Larissa endorsed trying to build as many leadership opportunities within the school as possible. They have worked extensively on collaborating with each other instead of each staying in their own classrooms. This has the effect of encouraging and instructing one another on being accountable for every single student. According to Larissa, “Each and every one of us, from a music teacher to the custodian, to Tanya, to the classroom teacher, we are all responsible for every student, so what do we need to do in order to accomplish that? We have set up structures for them to collaborate, meet, and do all those planning and things like that so we can help those students be successful.” The teachers also support each other and keep each other going when someone is struggling. Tanya indicated that they also call each other out “when they get out of whack” which she was heartened to see and described as “really cool.” These situations and challenges provide opportunities for teachers to lead, set examples for each other, learn from, and model the learning from their mistakes.

The teachers describe a high level of modeling for growth mindset. They admit when they perhaps did not teach a strong lesson, they share with the students when they have made a mistake and model to the students how they are growing or learning from the mistake. They are self-reflective and model this for the students as well. The teachers appreciate that Tanya has suggested they also record their successes, no matter the size or import. The successes can serve as a reminder for their progress, as a measure of where they started from to where they are going. Some reflections were recorded from staff meetings and are shown in Figure 11.

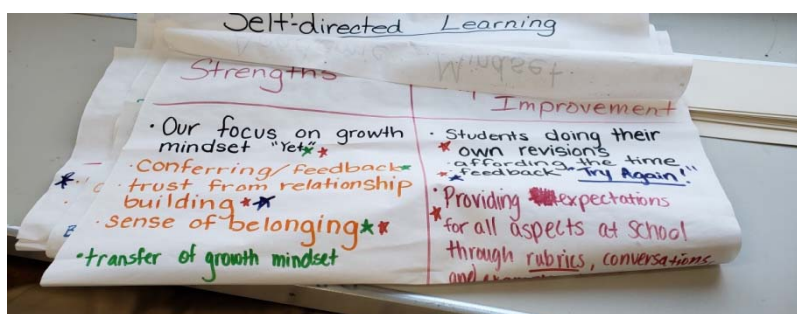


Figure 11. Staff reflections on progress. Staff reflections on their strengths and areas for improvement.

Developing safe environments for risk-taking and mistakes - Persistence

When Persistence was making the transition to becoming a Next Generation Learning school, there were some critical conversations that needed to occur to spur teachers into reflecting on their practice. Larissa noted how challenging that was in the beginning as they were asking teachers to make changes without having seen any models. She always went back to the mantra of “I’m going to do this with you, and we’re going to take one little piece of what you are doing, and it’s all fabulous,” to keep them moving forward in small, incremental steps. She referenced visible learning research and changing one item at a time, reinforcing to the staff, “I’m going to do it with you.” She believes this helped keep people from being so fearful of the changes they were seeking to make. From the leadership perspective, Larissa indicated they anticipated failure and accepted that as part of the premise of change. They believed they would learn from their failures, get back up again and move forward. She stated that she and Tanya’s jobs were to “always push the teachers to the edge of the cliff, but to make sure they don’t fall off. Sometimes we fall off and that’s where our role and the relationship pieces come in, in

understanding that.” Larissa reiterated the continuing mantra of, “we’re doing this together and when you fail, that’s okay; we’re doing this together and I’m going to help you. We’re going to get back up, we’re going to figure it out.” The more consistently they were able to message that mantra and provide the follow through so that teachers knew that “the principal wasn’t going to be yelling at them because their scores went down that month or because sometimes challenging practices appeared to take a toll on the data for the short term,” the more they were able to take the risks needed to try new things, to implement the new platforms, and to gain buy in on the vision and philosophy and the more they were able to grow their own mindsets. Some teachers described having had prior experiences with principals who seemed to be watching for people to make mistakes, having reviews, or getting written up. That approach helped to maintain an environment that was not safe for trying out new practices. That changed with Tanya, when they learned the environment was safe for them. As Barbara Ames, teacher at Persistence indicated, “We’re not just waiting and letting things happen, we’re trying new things.”

Professional Development

In each of the schools, the administrators, coaches, and teachers all described participating in professional development opportunities as key to helping them change and improve their practices, increase their knowledge and skills, and adjust the language that they use. In particular, the teaching staff, coaches, and administrators appreciated engaging in book studies and learning together. The elementary school administrators and coaches viewed the book studies as opportunities to help focus the staff on learning new or different instructional or social emotional strategies to engage students, and reflect on the language that they use in their classrooms. The administrators and coaches also viewed professional development as leadership opportunities for staff members to take what they learned and share with their colleagues or to

take the lead on implementing a particular practice. This view appeared reciprocal as teachers expressed appreciation for the professional development for enhancing their skills and providing leadership opportunities for them to act on. The elementary principals and coaches maintained a schedule for whole group (all staff) learning sessions, for example, during non-student, professional development days or during scheduled staff meetings. These large group sessions kept the staff focused on areas that were connected to the school's growth plan or the school's vision. After the large group learning sessions occurred, staff members took their new learning and information back to their professional learning communities for further discussion and implementation. In the case of the Innovation Academy, they took the new learning through the five layer process which provides a structure for moving practices into the classroom.

I observed teachers, coaches, counselors, and the principal at Achieve Elementary School during a professional development session designed for large group, instructional staff learning. I observed the process and sequence of moving the practices from an introduction and new learning, to discussion and collaboration, to problem solving of questions or issues in the classroom. In the professional development session, I observed modeling of practices from the presenters, coaches, and principal. The principal and coach communicated clearly the expectation to take this new learning into the classroom. The focus in this professional development session was on single point rubrics (see Figure 12 below for an example of a single point rubric). The principal and coach introduced the topic. The staff worked in small groups to read about and discuss the articles and web links related to single point rubrics. They considered the subject area they might start in and developed plans to create their own single point rubrics within an implementation timeline. This was a way of considering and reflecting on current practices, and promoting more effective feedback to students. By using single point rubrics,

teachers could identify specific feedback on areas of growth on either side of the standard/criterion, both areas for growth and improvement, and ways that had exceeded the criteria. The single point rubrics were presented as an opportunity to increase the effectiveness of feedback as rather than trying to make a rubric fit each individual student's work, the feedback could be more targeted to the individual's performance and needs.

Single-Point Mastery Rubric

Grows <i>Where you can strengthen your work</i>	Outcome(s) <i>for this Task/Project</i>	Grows <i>Strong aspects of your work</i>
	Criteria #1: Description reflecting achievement of mastery level of performance	
	Criteria #2: Description reflecting achievement of mastery level of performance	
	Criteria #3: Description reflecting achievement of mastery level of performance	
	Criteria #4: Description reflecting achievement of mastery level of performance	

Note: You can use the middle column for separate learning targets/outcomes, OR for indicators/aspects/criteria for a single outcome.

Figure 12. Single Point Rubric. Example of a Single-Point rubric reviewed during Achieve's Professional Development session. (Fluckiger, J. 2010; Mertler, C. A. 2001).

The constructive feedback and the sharing of views engaged in during the learning opportunity, as well as the content of the single point rubric, were all areas related to the district's mission, the school's heartbeat, and the development of growth mindsets among teachers. The coaches and principal identified the importance of making connections with teachers by learning together, collaborating, modeling, and teaching. They build on the connections they make while working together on a task or activity. The teachers, principal, and

coach collaborate to create goals and develop plans to reach them. According to the coach and principal, the goal setting process that occurs with staff is mirrored in the classroom with students.

Self-reflection and individual professional growth

For staff members who presented more reluctance, resistance, or more generally, operated from fixed mindset stances, the interview participants' responses suggested the need for improvement of one's own skills. As an individual developed their personal instructional skills and increased their content knowledge, the result anticipated was in greater confidence in oneself and increased willingness to take risks. As Angie, math coach at Achieve, indicated, "It helps with our own fixed mindset about math and there's one way to do it. Deeper content knowledge allows you to see there are multiple ways to do (math), that it's okay to do it a different way, and to see the connection among the strategies." She further added that professional development is a way to begin to get at that a little, however, "it is a challenge, as mindset is something that needs to come from within. It is challenging to support someone to take risks but the hope is that over time, hopefully, they become more comfortable. It helps to let them know that you are learning as well." Coaches and building leaders indicated it was their responsibility to help people 'dig within themselves to find answers.' They elaborated that sometimes staff just want the answers and those are provided at times, if it helps to provide clarity and movement for that person.

Noelle James and Krista Paulson described that growth mindset is just part of the culture. They talk about it and do some book studies together like "*Big Picture Schools*," and "*Seven Ways To Innovation*" and other similar books. According to Noelle, in terms of growth mindset, it is more discussion and conversation, and reflecting on our actions. "We are just constantly

talking about what is the vision and that vision is very much growth mindset so it is more of being reinforced at every level than studying it.”

Developing leadership through professional development opportunities

Mr. Somers, Principal at Achieve, respects staff input and obtains feedback from the teachers to determine what is needed for additional professional development. He then works with the coaches and the leadership team to provide opportunities that allow for more voice and choice for the teachers, and to support the development of their own learning plans. His philosophy on professional development is, “We are not trying to get better because we aren’t good, but that there is always room for improvement no matter how good we are.” He and the coaches seek feedback on what they can continue to improve, and on ways they can better facilitate the district’s initiatives and priorities. They have also developed leadership teams and believe it helps to have the teams developing and sharing out the continuous growth plan.

The coach and principal at Persistence shared their approach to professional development and how their staff work and learn together. They are united in professional development through book studies and other avenues of professional development to keep moving forward. Each spring, Tanya and Larissa provide options for staff to consider the committees they may be interested in or what areas they are passionate about and desire making changes in to better position themselves for the learning of the students. They also inquire as to who wants to take on a leadership role. They then meet with the leaders of the groups to coach them on leading a committee. Even though there have been teachers who have not aspired to be committee leaders, they believe every person has a little bit of a leadership role in the sense that they are always willing to help another person out. When a team says they are struggling, they know that half of

the teams in the building will be emailing or connecting to see what they need and how they can help. The groups work closely with Larissa over the summer regarding the book studies and on what they want to put in place in the next school year.

Dedicated time for collaboration and professional development - Persistence

Tanya and Larissa have built a schedule that allows for committee and collaborative work every day prior to the arrival of the students. The schedule keeps one day of the week sacred for all staff collaboration to allow for addressing needs as they arise or for all staff professional development. Tanya and Larissa have also built in time for team collaboration and for collaborative problem solving in the schedule. The schedule can be seen in Figure 13 below. There is flexibility in the schedule so that if they need to pull a team together, they can. The collaboration and problem solving has changed the way the staff look at students so they are not so 'siloed' in their approach to problem solving (i.e. by subject or behavior) and that all of the steps are linked together according to Tanya and Larissa. Although the staff are on different committees and teams, they are all made aware of what is going on in other departments and what is needed for individual students and they have time to work together. In addition to the scheduled collaboration and committee times, the schedule includes four one hour blocks per week for co-planning. From a leadership perspective, they recognize that the co-planning time is essential and it is one of the main priorities that is blocked off for the teachers.

Year at a Glance 2018-2019					
	September	October	November	December	January
Literacy, Math, Tech, etc - Staff Meetings	No Meeting **Optional On-Demand Meetings may be offered as needed on Thursdays**	10/2 & 10/23 **Optional On-Demand Meetings may be offered as needed on Thursdays**	No Meeting **Optional On-Demand Meetings may be offered as needed on Thursdays**	12/4 **Optional On-Demand Meetings may be offered as needed on Thursdays**	No Meeting **Optional On-Demand Meetings may be offered as needed on Thursdays**
The Formative Five Attributes - Staff Meetings	Focus: Self-Control 9/11 - PBIS team will define attribute, help us understand why it is an important success skill, and model how to teach this attribute to our students	Focus: Self-Control 10/9 - Teams will need to bring an example of how they taught/incorporated attribute along with data/samples of how students are demonstrating this skill PBIS behavioral data will also be shared	Focus: Diversity 11/8 - PBIS team will define attribute, help us understand why it is an important success skill, and model how to teach this attribute to our students	Focus: Diversity 12/11 - Teams will need to bring an example of how they taught/incorporated attribute along with data/samples of how students are demonstrating this skill PBIS behavioral data will also be shared	Focus: Grit 1/8 - PBIS team will define attribute, help us understand why it is an important success skill, and model how to teach this attribute to our students
The Formative Five Attributes - School Assemblies and focus in classroom	Focus: Self-Control Assemblies - 9/14 - PBIS Kickoff 9/21	Focus: Self-Control Assemblies - 10/5 10/19	Focus: Diversity Assemblies - 11/2 11/16 11/30	Focus: Diversity Assemblies - 12/14	Focus: Grit Assemblies - 1/18 1/25 - PBIS Kickoff/Review
Ideal Team Player and Co-teaching - Staff Meetings	9/18 *Bring your Team Player Journal to 4:00 PM meeting	10/16 *Bring your Team Player Journal to 4:00 PM meeting	11/20 *Bring your Team Player Journal to 4:00 PM meeting	12/18 *Bring your Team Player Journal to 4:00 PM meeting	1/15 *Bring your Team Player Journal to 4:00 PM meeting
SLO goal and PPG	Throughout month of Sept. - review deeper learning competencies, review past data, collect baseline data and determine needs to create SLO in MLP SLOs need to be entered in MLP no later than September 28, 2018			By Dec 15 - Give survey and complete the Growth Fairs in MLP (you may complete this every year or at LEAST once per a three year cycle) Week of Dec 28 - Meet with TTT to mid-internal review of SLO/PPG	Throughout month of Jan - collect mid-internal data, reflect on progress with SLO and determine needs to meet SLO by May (update in MLP) Week of Jan 28 - Meet with TTT to mid-internal review of SLO/PPG
PDSA (plan, do, study, act) Cycle [a.k.a 30-60-90 day plans]	Week of Sept 24 - create SLO/PPG & Meet with TTT/SL Oct 2 - Create 30-60-90 day plan.	10/20 - review goal, study results/data, adjust/correct actions, prepare for next 30 days	11/27 - review goal, study results/data, adjust/correct actions, prepare for next 30 days	Week of Dec 17 - Create new 30-60-90 day plan & Meet with TTT/SL	1/29 - review goal, study results/data, adjust/correct actions, prepare for next 30 days
District Wide Professional Development Days	9/24 - Building PD		11/6 - District Cohorts at Hale in Morning and optional speaker in afternoon Cohort schedule: 7:30-8:00 Academic Model Cohort 8:00-10:00 Content Mastery Cohort 10:40-12:10 Deep Learning Cohort		1/22 - District Cohorts at Hale in morning and Wellness Fair in afternoon Cohort schedule: 7:30-8:00 Academic Model Cohort 8:00-10:00 Content Mastery Cohort 10:40-12:10 Deep Learning Cohort
Committee Meetings	9/10	10/8 10/22	11/18	12/3 12/17	1/14
Empower Book Study					1/7

Figure 13. Calendar of PD, committee meetings, and events

This table reflects the 2018-19 committee meetings and professional development calendar at Persistence.

Tanya noted that every summer the teachers engage in book studies. This started when they were all reading a book on conferring. That summer, they held meetings to discuss the readings and planned to bring it to the staff on return in the fall. Tanya no longer leads the book studies, the teachers do. She indicated that some of them may read, for example, five books because they can take as many as they like. They meet every other week to discuss them and then present what they learn to the staff in August. Tanya indicated that this works really, really well. As a result of the book studies, they get ‘super excited’ teachers who learned together over the summer. She described them as re-energized and having set goals for the year. She noted that

everybody else just kind of ‘falls into place.’ This effectiveness of this practice of summer learning, speaks to not only their own commitment to professional learning (all unpaid time) but also to collaboration, collective efficacy, and building leadership among the staff.

Tanya, at Persistence, planned to introduce concepts from, “*The Formative Five: Fostering Grit, Empathy, and Other Success Skills Every Student Needs*” a book by Thomas R. Hoerr, at a staff meeting. She reflected on this book as one that changes people and she planned to read it with the staff as a book study. Tanya met with the deeper learning coach and counselor to discuss it. As a result, they decided to revamp their committees, highlighting particular areas, for focus from the book. From this, they sketched out the professional development plan for the following year, including parent night topics. Tanya indicated excitement for this new learning, their impending work together, and the areas of focus that could carry forward from one to three years. Tanya’s plan for the current professional development work included implementing social emotional goals and increasing student perspectives and feedback, with a focus on empathy. To address self-control, she planned to tie in technology, for example, addressing internet use, safety, and gaming. Tanya also noted the leadership team was completing a book read with one meeting each month focused on equity. She explained that they have also been working on PBIS for several years. Together with their work on restorative practices, trauma informed care, PBIS, equity, goal setting, and growth mindset, their work with the “*The Formative Five*” all fit under one huge umbrella. In Tanya’s words, “It helps to have the pieces all fit together so that teachers are not feeling like additional things are constantly being added; instead these are all linked.”

Growth Mindset specific professional development

In terms of specifically providing professional development related to growth mindsets, Larissa reported that she and Tanya had the whole staff complete the Strengths finder assessment to learn about themselves. Larissa related that the whole staff, including the leadership, did a lot with growth mindsets with the teachers, learning about and understanding what their own mindsets were and how they shifted. Following the staff discussions and professional development, the emphasis for all staff moved to focus on growth mindsets for the students. Larissa, Tanya, and instructional staff members took an online class through Harvard focused on math mindsets. According to Larissa, it was the growth mindset work from Joe Baylor that helped them focus on parental understanding of growth mindsets. She described that this was particularly helpful with respect to helping parents understand growth mindsets, especially in the area of math, as “that is an area that students would tend to comment that they were either good at math or not, which is not true.” The staff engaged in professional development that was focused on Carol Dweck’s book, *Mindset the New Psychology of Success*. Larissa explained that they worked to weave the big idea in with the math work. The staff as a whole started to read, and dabble in discussions with how to encourage students but “it ended up being more about teachers having that growth mindset first.”

The leadership followed up on the initial work from Dweck engaging staff through articles and videos; the leadership and staff engaged in discussions and questions that were generated by a personality from the UK. According to Larissa, she was very “blah” and although it was intended for them to get ready to have the students have a growth mindset, it really served the purpose of learning about and reflecting on their own mindsets. It became about them having these conversations, looking at things differently, and self-assessing where they were with

growth mindsets, taking different instances and looking at where their mindset was related to that particular topic or instance. People would find, for example, that they had a growth mindset in one area but when focusing on something else, like math and teaching ability, or riding a bike versus teaching, mindsets were inconsistent. There were many conversations held and perspectives shared which created a close knit community among the staff. According to Larissa, this community is one in which “they really honor what everyone has to say, take it in, resonate with it for a while, and then you can see things change. They really change their practice or seem less reluctant to try new things.”

Growth mindset changes in perspective and classroom practices

Kate Christensen, of Persistence, also described focusing on growth mindset as a district and the application specifically in the area of math. She recalls when they started, they had anchor charts, worked on math vocabulary, and the presentation of number talks. She discussed that part of the underlying reasoning behind that work was growth mindset, which she said is true for much of what they do. She explained that it is just ‘ingrained’ in the school. They don’t teach to the test, however, they do teach the learner how to think and how to stretch their minds. She believed it to be reflected in their state and district assessments. Tanya and Kate indicated the results from previous goals and the goals they now have for Persistence are well beyond those of the district, and they are proud to report that they will reach their goals.

Kate identified changing her mind about her teaching practice after learning about growth mindsets. She initially learned more about it as a teaching practice. It has made her more aware of how important it is to focus on the students’ understanding and on the importance of viewing the challenges in their lives, both academically and in other ways. Instead of telling it, teaching

it, and practicing it, Kate described that she has changed the language she uses with the students. She explained that as a staff, they are always talking about how important it is to have all of the skills related to having a growth mindset, not just doing a lesson on growth mindset one day, but reinforcing it all the time. As she stated, “It’s ingrained in what we do.” Kate believes it is a practice to “help you become a better teacher, to help students become better able to see themselves as better learners, and to have them become better learners in practice. It becomes part of them.” She has always acknowledged that mistakes are not bad, but she now says that they actually look at the way they do things, look at things in different ways and consider the language that they use. According to Kate, “The questions we pose in a growth mindset frame becomes a way of teaching.”

Barbara Ames, early elementary teacher at Persistence, described growth mindset as something that really ‘stuck’ with her. She and her teaming partners have been working with the growth mindset stances for two years and she sees the value in it as well as in their professional development on trauma. These experiences and learning opportunities have been eye opening and allow she and her team to see all of the students differently, through the lens of trauma. The perspective and view from these lenses are critical especially in the early years. Barbara relates this learning to mindfulness, which if practiced when things are calm and easy, can be easier to access when things are more challenging. Barbara believes that growth mindset concepts could be taught without specifically instructing on them, however, even at the kindergarten level, the students can learn and use helpful language. She described, for example, hearing the students talk about being flexible and having empathy. According to Barbara, “We don’t always give our students enough credit for what they can do. If we expose them (the students) to the language and ideas, then they can take those words and use them.” She believes a good teacher would

promote growth mindset concepts regardless of if they were instructing based on the stances or specifically teaching to it but that it is difficult. She could see growth mindset language and concepts falling to the ‘wayside’ with hopes that parents would pick it up. “It’s easy to lose sight of these types of concepts if they are not specifically planned for.”

The 4th-5th grade teaching team expanded their focus this year for professional development to growth mindsets and restorative circles. The team has moved away a little from a strictly academic focus, and more toward a whole child focus, which includes mindfulness and PBIS (Positive Behavior Interventions and Support). The 4th and 5th grade team are proud of their students going above and beyond in the classroom and they recognize students that are highly engaged in growth mindset strategies, breathing, or mindfulness. Common vocabulary instruction in the classroom includes teaching the students about grit, not having learned something ‘yet,’ and having tenacity. The teachers model their learning, their mistakes, and the growth from their mistakes for their class and encourage the students to share their learning with them. The team lets the students know that they will never fail as long as they are trying.

The first year presenting growth mindset concepts, Belinda Kimmons, counselor, described that they focused on one stance per month, learning the definition, the hand signal/sign, and then shared stories and videos about each. Belinda noted that currently the school focuses on a growth mindset word or growth mindset stance that she presents to the students every two months. Belinda and the teachers show a video or enact a play to role model the concepts for the students. The staff as a whole reinforce the concepts through bulletin boards and the teachers use the language in their classrooms. Figure 14 is an example of one of the bulletin boards.



Figure 14. Growth Mindset bulletin board. Bulletin board demonstrating Growth Mindset stances at Persistence

Belinda noted how open minded the staff are to the initiatives that the leadership brings forward and rolls out. Belinda describes that the staff just take it and run, becoming leaders and resources for others. She described two of her colleagues as being quick to find resources and quick with technology. Upon roll out of growth mindsets, these teachers were able to create a whole resource website for the teachers to use. This allowed all staff the ability to click on a stance and a variety of resources and materials were made available for their use. Belinda described her colleagues as people who “just get it” and are incredibly helpful in creating resources and strategies. In her words, “These teachers truly blaze the path for other teachers to follow. It’s incredible to see.”

Larissa, Deeper Learning Coach, reports that as a result of their increased awareness of growth mindset concepts and language, the teachers feel more comfortable in challenging each

other to think more from a growth mindset perspective in committee meetings or problem solving conversations. Occasionally, staff will get stuck in the mode of thinking they have done everything they can to address an issue. At these times, teachers will provide each other with encouragement or will challenge one another to look at the issue from a different lens or angle. Larissa explained that this type of collegial support “sparks” the teacher’s growth mindset again. The teachers start sharing ideas and experiences, looking at the data, and considering if there is an area that they are not addressing. While the teacher might enter the meeting feeling stuck and having tried everything, they leave with ideas for next steps. As Larissa explained, “I think that’s an example of having a growth mindset and needing to be reminded without being reminded.” She believes that having that built in collaboration time, having teachers constantly collaborating with each other or with the leadership, are practices that can lend themselves to shifting mindsets.

Developing culture through leadership and personal growth

Developing leaders among their staff was also a consistent theme across the cases. Each of the cases did this as assisted by different structural elements, however, common elements of leadership development included collaboration, learning together, modeling, and risk-taking. Across cases and individuals, collaboration and communication were highlighted as critical to the achievement or progress toward the vision. The development of leadership among staff was a prevalent sub theme in the development of their own mindsets and in turn, in the expectations and views of the students that they worked with.

Empowering all staff

Teachers at Persistence and Achieve reported a level of trust from their administrators to use their professional judgment regarding academic and behavioral strategies and curriculum provided they were moving in the right direction. Universally, across the individuals interviewed, teachers believed the administration to be supportive of their efforts and of the idea that if they made a mistake, they could change their practices and learn from it. As Tanya Woodworth stated, “Everybody makes mistakes. If you keep making the same mistake over and over, then we’re going to have a conversation because then you’re not learning from what happened; but each time you try something, you learn something.” her expectation for the teachers was, “Take away one thing that you learned and apply it.”

The multi-layered design process at the Innovation Academy encourages design challenges, activities, and ideas to be brought forward by all staff members, regardless of position. Input is gained from all levels to ensure that the strategies, ideas, and implementation of them, is viewed from all lenses. At times, an issue/idea/project is brought forward and discussed first by the leadership and is then examined through the layers of specialist, coach, and student. At other times, the discussion may start with the student or with the coaches, then move to specialist and administration. As noted previously, this ensures adherence to the vision and assures that all perspectives/voices are heard and taken into account, and all angles of the problem, barrier, or proposal, are considered prior to implementation. As a result of this multi-layered design process, coaches and specialists report feeling valued to a greater degree than they had in previous positions. The process provides opportunities for all staff to be in the position of being a leader and developing their own skills according to Krista Paulson, Director. Noelle James, Administrator at Innovation, described that the shift in titles/roles at the Academy lends

itself to empowerment and leadership across positions as well. Titles of coaches and specialists are viewed as less hierarchical than traditional titles of teacher and paraprofessional by both staff and students. The positions are viewed more flexibly with respect to facilitating student learning and with regard to the contributions of, and expectations for, any team member. Coach Nora King reflected positively on being respected enough to be given time to meet with her colleagues indicating it is very beneficial when the coaches get together each week. She explained that it is nice to talk to other people who are doing the same thing, who have similar issues and struggles and she finds the leadership “is easy to talk to.” She feels comfortable letting others know what she is having difficulty with and discovering how others have dealt with similar situations. Nora also described that she and other coaches feel comfortable bringing ideas and suggestions forward. In her view, the perspective at Innovation is one that does not rely on the title of the position to warrant credence for an idea or strategy.

Regardless of position at the Innovation Academy, the communication, the design process (5 layers), and the structured learning opportunities resulted in staff members’ perspectives that they were valued members of the team. The learning specialists and coaches reported that feeling valued and respected helped them to maintain their individual levels of commitment to the vision. The level of communication reflected the importance of the “good of the group” including providing new opportunities for learning, for keeping everyone informed, and for providing an avenue for input through brainstorming and discussing current needs, such that the opinions and ideas of all were considered and valued. At the Innovation Academy, there was a willingness to listen to any idea no matter how ‘crazy’ it seemed on the surface. Whether a coach or a learning specialist, the level of communication removed the feeling of being “siloed” as some described experiences they had in other environments, and allowed for input and

collective buy in even though everyone was bringing something different to the discussion. There was deep appreciation for bringing a roomful of people together to discuss any issues, what they could do to address them and make the situation better, all of which made the learning environment more powerful.

In the environment at the Innovation Academy, the learning specialists believed they were more similar philosophically than in other teaching environments. At Innovation, everyone worked collaboratively or as one staff member, David Scott described, “everyone is rowing in the same direction.” Another educator, Learning Coach Bonnie Dawson noted, “It’s not what any one person does, but it is what they do as a team.” There is less of a push for institutional control, and more for self-driven learners, problem solving, working together, and teamwork. As David described, “There is no “ivory tower” facade that seems to exist in educators’ minds or in school board’s mind, that’s just not reality. For example, everybody’s going to be able to do exactly the same thing, holding everyone to the same standard inside the building and saying this is the way it need to be done.” “The hierarchical models that exist in some places and with leaders who boast of the degree that they have, or the length or breadth of their experience, crushes and kills innovation” according to David. At the Innovation Academy, there is nothing that they cannot try. He analogized businesses making customers’ happy, increasing customers, and money earned and thus making shareholders happy, with schools focusing on students, what they need to be successful, what they need to get to the next place. In his view, education should not be compared to or expected to run like a business as “you can’t pick and choose the material you have to work with, you need to work with and build on what you have.” The exception David described, is with respect to the ‘business mindset’ of working together as a team and

empowering people. David believes education can be a place of innovation if they work together as a team.

At Innovation, the staff believe adults and students are active problem solvers who need to experience some wins, be curious and explore. The leadership provides them with the tools to use, and they learn from each other, but the success comes from the team and the team shares the successes. The structure of the design process not only helps to promote relationships among the staff, but also provides for a clear communication structure and is an avenue for keeping the students at the focus. Similarly, staff members reported that the routine use of the circle process contributed to their sense of safety with each other. There is an element of trust among the team as a result of these processes.

At Persistence, interview participants believe that collaboration is where their success is derived from. Persistence has developed a structured collaboration schedule to support teamwork and leadership. They keep building collaboration time sacred in their weekly schedule. They believe that planning is essential to everything. The weekly collaboration time allows for staff to plan together and provides for staff leadership opportunities. The arrangement of committees also facilitates leadership development. The Principal and Academic Dean/Learning Coach model for and coach the teacher leaders to facilitate groups. They are unified in their belief that every person has a little bit of leadership in them. Tanya reported that they try to have everything led by the staff. For example, when they first started looking at data as a building, they selected two of the most outspoken teachers, sent them to a conference, and on return, had them lead their colleagues on the use of their data walls. The process of using teachers to implement the use of data walls, as well as in general of using teachers to lead initiatives, has evolved over time. Tanya cited the counselor's roll out of social emotional learning strategies as evidence of staff

leadership and learning, and of staff accepting/implementing practices from colleagues more readily than by supervisory staff. She also noted this as a measure of their collective efficacy.

The counselor, Belinda Kimmons, is encouraged to take on leadership roles. She described aligning her philosophies with that of the school, noting that she has “a big growth mindset philosophy for myself.” She also described her philosophy and approaches in promoting mindfulness, kindness, and self-regulation. Belinda described herself as follows, “I basically just live what I preach to the staff and to the students.” Similar to Belinda’s work on social emotional learning outcomes and strategies, Tanya indicated they just need to plant a seed and their teachers will follow up on ideas and take the lead on developing them further or implementing them more broadly. Tanya just has to ask what they need of her to be successful, she then acts to get them what they need. As building leaders, the Principal and Dean/Coach are always willing to help. They cite primary factors of unity, cohesion, preparation, communication, and listening to different perspectives, as significant to developing collaboration, collaborative relationships, and leadership among the staff within their building. According to Belinda, “The biggest thing is that consistency piece, of promoting it school wide just as part of the culture of the school, and we talk to each other and what we believe in and it’s really cool to see the kids us the language.” Belinda described an example of bringing all of the initiatives together and having the students look for examples of growth mindset, mindfulness, and kindness. She also described their engagement in lessons related to the mindset stances. The widespread engagement in these activities helped to solidify the philosophies into the culture of the building. The development of lessons and implementation with the staff also built upon Belinda’s leadership skill set. Belinda shared some examples of growth mindset lesson plans, one of which can be seen in Figure 15.

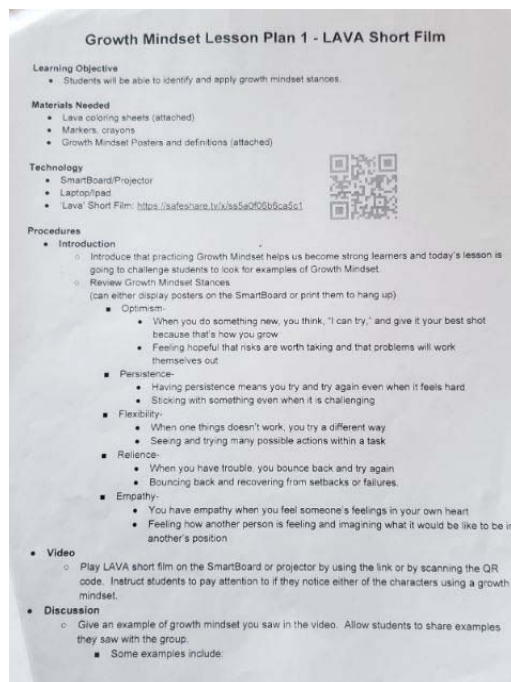


Figure 15. Growth Mindset Lesson Plan. Growth mindset lesson developed at Persistence

In summary, the leadership opportunities that are encouraged by the principals and coaches, the collaborative time to learn and work together, share ideas, and develop consistent practices have given teachers opportunities to develop their own skills and to better understand the vision of the schools. These practices have also provided the time to explore and implement strategies and language and to assess the benefits of doing so.

Building relationships, reducing barriers, providing resources

In each of the schools, the principals and coaches strongly endorsed the importance of building relationships. Although this concept was previously iterated in both the vision and collaboration themes, I will provide some additional examples here to highlight the relevance of this concept. There was consensus from each of the schools that relationships and respect for

each other builds cohesion for the vision and increases the collective efficacy of the group. Building relationships among one another, engaging in practices that communicate respect for the individuals and for teams, genuinely expressing appreciation and respect for the positions and the level of commitment and hard work involved, were leadership practices that were uniformly noted across the three cases. In each case, the administrators demonstrated respect and appreciation in slightly different ways. The staff at each building reported feeling valued by the administration and those in leadership positions and this was universally appreciated.

A particularly poignant example reflecting the powerful impact of that respect and appreciation bears further description here. Barbara Ames, teacher at Persistence, shared that the principals that have been most influential for were those that not only honored her as a professional, but also as a person. This was especially true after she became a mother. She felt honored with respect to the importance of her family and in the philosophy that you have to be a whole person in order to be present at Persistence. Barbara explained that she worked with about a half a dozen principals in her 27 years. During that time, she had three that truly inspired her to be better and that she felt really good about. Tanya was one of them. She shared how much she appreciated the way that Tanya had written up the last observation of her and described that she “just cried.” She described her feelings as she felt like “no one had seen her as a teacher for so long and Tanya truly saw her, and what she was doing.” In Barbara’s view, people do not understand what else is out there. She just felt “so honored.” As a result, Barbara tries to honor her students in that same way and tries to make them feel like what they feel and do is important. She feels like Persistence is a place that she can retire.

Another example of the appreciation for relationship building and respect was provided by the 4th and 5th grade team. Pat, Jackie, and James, the 4th and 5th grade team at Persistence,

commented on Tanya's appreciation of them, that when they are feeling down, she will encourage them and say things like, "Do you know what you've done for that child?" Jackie described, "She really gives you that motivation when you need it, even when you feel like you just can't do it. She's beyond supportive. She always tries to make sure that you know you are doing things right." Tanya encourages them to track the positives and successes they have to remind them and reinforce the good work they are doing.

Barbara Ames, teacher at Persistence, went on to say that she appreciates Tanya's approach and models it with her students. First, Barbara gives purpose to her students for learning, to let them know what they are about to learn and the reason for learning it. She also lets them know that it is okay if they do not understand and that learning is a process. Barbara describes her philosophy as "if you feel supported you will continue to grow and you'll be unafraid to take risks and to take chances because then you know that failing isn't the end all, that it's just something that's part of the process." Barbara has taught early elementary through sixth grade. She believes that if her philosophy is applied, "especially with the younger kids, if you can make them believe that and know that mistakes are OK, then I'm hoping it will give them a good base for when they get older so they will be better able to face some of the challenges that they're going to come across in school and in other things."

Larissa recalled having been in the classroom for the first two years that Persistence was moving toward the Next Generation, personalized learning model. She then left the classroom to become a coach. As a result of having been in the classroom, Larissa believed that the teachers felt they had someone they could talk to that had been in the position. Larissa had also already developed relationships with the teachers. Although Larissa noted that it is difficult to go from the classroom to a leadership role in the same building, it turned out to be a "really good thing

because I had those relationships and like I say, I'm here for you, I'm with you and I'm not judging you. We're going to figure this out."

Reducing barriers for staff and the school community

At the Innovation Academy, Noelle James and Krista Paulsen, Administrator and Design Specialist, explain the design process at the school which takes a challenge or potential practice through a cyclical process, from introduction to a responsive enduring practice. The process, which is displayed in Figure 16 below, engages five levels of input, from partners, learners, coaches, specialists, and directors to ensure the practice is reviewed from multiple lenses, with barriers considered and solutions arrived at prior to implementation. As Krista noted, "When we're designing anything, we are always asking them what their barriers are; so what's your barrier for being able to do this and then we design our learning opportunities for the staff around that." Noelle, Krista, and the staff at Innovation report that the design process reduces some of the burden on specific staff as it distributes responsibility across stakeholders to provide input and consider all angles. At the same time, it provides leadership opportunities as ideas or practices can come from any level or position. All staff are expected to bring back information from professional development opportunities they have engaged in to share with their colleagues in this process. Feedback from the implementation of new practices are also brought back to the design team and process for reflection, feedback, and problem solving.

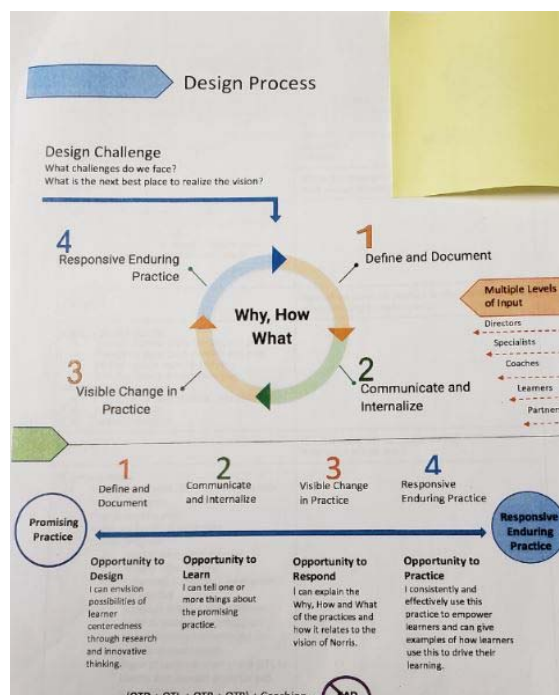


Figure 16. Innovation's Design Process. Multi-layer Design Process at Innovation

At both Achieve and Persistence, the leadership, including principals, coaches and the school counselor, described doing the “heavy lifting” to keep things going and to keep initiatives from being a burden on the teachers. Both Tanya and Larissa at Persistence, and Nate and Zoey at Achieve, strive to make it as easy as possible for the teachers, not only in their daily work, but also in their own learning and in taking risks to improve their practices. Belinda Kimmons, counselor at Persistence, also subscribed to taking on a lot of the work, of creating a lot of the activities and lessons, and providing the books, videos, and resources to keep their initiatives such as growth mindset, mindfulness, restorative practices, and kindness going. According to Belinda, as the staff engage in book studies or participate in other professional development opportunities, if nobody takes action on it, it just gets dropped. She tries to pick up the responsibility to keep the consistency going or “to keep it on everyone’s plate” so that they continue to focus on this work for students.

Ensuring staff understanding and providing professional development are additional ways that the leadership at Persistence, Achieve, and Innovation, remove barriers to implementation of practices in the building. The principals achieve this in part, through a reliance on their learning coaches. Angela Mason, math learning coach at Achieve, observed that frequently raising topics for discussion, talking about the issues in different ways, and having conversations so that staff can hear different perspectives from everyone helps. Angela believes that hearing all voices, including those from reluctant staff members, who can then share successes helps to move everyone forward.

Each school provides for a feedback mechanism to the building leadership. At the Innovation Academy, feedback is through the multilayer design structure. At Achieve, feedback is primarily through the coaches or directly to the principal. At Persistence, the Advisory committee serves as that feedback structure. This committee meets with Tanya monthly. Tanya asks the leadership committee what they are hearing from teachers and what they need. The teachers on the committee seek input from all of the teachers. In this way, Tanya hears everyone's voice in an anonymous fashion. According to Tanya, she does not care who the feedback comes from, she listens and then takes action to address it. In this process, Tanya is able to address issues as they arise and can take action to mitigate the issue or remove the barrier.

Barbara Ames, teacher at Persistence, who described deep appreciation for Tanya's family first and growth mindset philosophy, also expressed appreciation for Tanya's visibility and approachability. In Barbara's previous positions, the teachers had a half an hour of duty every day, whereas at Persistence, Tanya has ensured that they have only a half an hour per *week*. Barbara explained that Tanya supervises recess every day herself; for other supervisors, Tanya "has people fill in so we can work and relax. She honors us." Barbara described this

strategy not only in terms of reducing barriers so the teachers can accomplish their goals, but also from the perspective of honor and respect from the principal.

Not only did the principals at Achieve and Persistence reduce barriers for staff members to grow and develop for the improvement of their practice and the resulting positive effects on students, the leadership also took measures to reduce barriers for students and parents. (See Table 6 for a listing of ways principals/administrators removed barriers in their schools.) One way the leadership at Persistence addressed the level of needs was by implementing a before school program so that parents could drop off their children in a safe place and get them off to a good start each day. Barbara Ames noted how nice that is for parents and how approachable Tanya is to them. Kate Christensen also marveled at Tanya's ability to get assistance for the students. She indicated that the principal finds a way to get you the help you need. Tanya described parental challenges in getting students to school due to a lack of household vehicles. She indicated it took about 3 years for her to get a bus. Once she had the bus, the students did not know how to behave on it so Tanya spent time in both the mornings and afternoons riding the bus to ensure these were safe rides for students.

The principal at Achieve, Nate Somers, also does his best to remove obstacles for teachers. Mr. Somers' time in the classroom gave him the perspective of the teachers so he believes he understands some of the challenges they face. The teachers just need to let Mr. Somers know what they need from him and he will try his best to accommodate the requests. Whether it be materials or time, or whatever he can do to ensure that they have what they need to be successful, Mr. Somers will provide it. Teachers view this positively and as him being willing to "go above and beyond" to make sure they have what they need to provide students with hands on, authentic learning experiences, that keep them engaged. Mr. Somers is seen as understanding

their (teachers) value and often taking their lead, in addition to providing the monetary/resource support for their classrooms, book studies, and conferences. Mr. Somers believes that the staff are always continuing to learn and grow. He believes having outside expertise to bring in is important, however, he also believes in the expertise of the people in his building and that sharing their expertise is critical.

Mr. Somers also addressed the student and parent needs of his building by creating “soft starts.” The soft starts allow for a more flexible drop off time at school, reducing the numbers of truancy issues. In addition to the flexible start time, the soft starts allow students to engage in activities of choice, whether that be by pursuing interests in science, or travel, by attending starts called “Wonder Wednesday” or “Travel Tuesday” or just engaging in reading a book. Mr. Somers and the teachers described this as beneficial behaviorally, as students have a chance to engage in learning of their choice or just start their day in a calm way rather than needing to line up, all enter at once, and adhere to the bell for entry. This practice reduced barriers associated with tardy/attendance issues and, at the same time it also improved student behavior at the start of the day which positively impacted the teachers and students.

One of the ways that each of the buildings addressed the barrier of time was by scheduling time for collaboration and using resources to support teacher observation, collaboration, and learning. Persistence addressed this barrier by maintaining a schedule that prioritized collaboration and co-planning time. Tanya and Larissa recognized that one time per week was insufficient to adequately co-plan with their colleagues for effective instruction and meeting student needs. Persistence allots 4 hours each week for co-planning. The schedule provides for additional collaboration time in the morning, before student arrival with sacred time for professional development, collaboration, problem solving built in. In addition to the

scheduled time for collaboration, problem solving, and co-planning, Persistence planned to restructure to have their certified special education staff immersed into the classroom as one of the teachers on the team. This will result in greater ability to co-serve the students with identified disabilities by virtue of having the co-planning time allocated. They also planned to prioritize the schedule for shared specialists, such as Occupational Therapists, recognizing the need for consistency and collaboration for maximum impact. Teachers at Persistence also pointed to the staff available to them to support students, including interventionists, more special education support, interns and student teachers, in the building which provide extra hands and extra minds that think of students differently, see them in different ways.

Table 6. Reducing Barriers

Depicts examples of principal efforts to reduce barriers for the staff and communities they serve.

Achieve Elementary	Staff Time	Community and students
	<ul style="list-style-type: none">Scheduled time for collaborationOn-demand time for collaboration/observation	<ul style="list-style-type: none">Before school/Morning programFlexible start/soft starts<ul style="list-style-type: none">Wonder WednesdaysTravel Tuesdays
	Materials	
	<ul style="list-style-type: none">BooksMaterialsProfessional development: conferences, in house expertise	
	Resources	
	<ul style="list-style-type: none">Coaches - instructional, math, ELLBudget 10% for release time for collaboration, observation	

Persistence Elementary	Time	<ul style="list-style-type: none"> ● Acquired a bus for the low SES attendance area ● Open computer labs for summer use ● Books for students for breaks and summer ● Food for breaks
	<ul style="list-style-type: none"> ● Sacred team collaboration time scheduled during the week ● PD and collaboration time for the building ● Recess coverage, including daily recess duty by the principals 	
	Materials	<ul style="list-style-type: none"> ● Books, materials ● Professional development: conferences, in house expertise ● Development of SEL lessons and activities for the teachers
	Resources	<ul style="list-style-type: none"> ● Coaches ● Interventionists ● Collaborative scheduling for shared staff in the district ● Interns
Innovation Academy	<ul style="list-style-type: none"> ● Design process address barriers <ul style="list-style-type: none"> ○ Students ○ Staff 	
	<ul style="list-style-type: none"> ● Professional development <ul style="list-style-type: none"> ○ Conferences ○ In house expertise - learning from each other and coaches 	

At Achieve, Mr. Somers described that having been a teacher allowed him to recognize barriers for teachers and as a leader, he strives to remove barriers for teachers. One of the barriers he identified was in time to implement new ideas, initiatives, and strategies. One way of reducing barriers is achieved through budgeting. Mr. Somers reported that he has rearranged his budget allocations to allow 10% to be targeted for release time. This allows teachers to work

with the instructional coach, to observe one another, and to co-plan or co-design instruction, and practice together. If there is a more spontaneous need, both he and Zoey, learning coach, will either cover the classrooms for the teachers or will find coverage to allow teachers to get what they need. Another important budget priority was funneling his funding into coaching positions. During one school year, he was able to have the support of an instructional coach, a math coach and a title one reading teacher. Although the math coach left for district level opportunities and responsibilities, he was able the following year, to obtain a second language learner coach. The combination of these resources, along with Mr. Somers, allows the teachers to access each other's classroom with coverage provided if needed. It also allows for learning from the expertise of the coaches.

Across the three schools, the building leadership expressed the mantra that they share with their staff that if there is anything they need, they can come to them and the leadership will do their best to get whatever materials or do whatever is needed to make sure the staff have what they need to be successful. They understand the barriers for learning and work to remove them for teachers or proactively work through them. In one of the cases, the teachers remarked that the while the leadership provide them with a multitude of resources and curriculum, they are given the professional freedom to determine what is best for each group of students. Others reflected on the honor the principal bestowed on them professionally by providing coverage for them for routine duties. As indicated previously, one teacher described having had a half hour recess duty daily in another elementary school while at Persistence, she had just one time each week. This reduced supervision allowed her to do other work. She reflected positively on her principal's response. She felt the principal was honoring them in that way.

Language

The third theme that emerged from the interview and observational data as well as school documents was that of language, especially as it related to diverse populations and learner agency. The theme of language and it’s subthemes are shown in Table 7.

Table 7. Theme of Language

Depicts the third theme of Language and the related sub-themes that emerged.



Deletion/Reduction of Deficit Language

In each of the schools, the principals, coaches, and teachers reported an overarching change in language that supports the development of growth mindsets and maintains the focus on student growth. Personalized learning initiatives, the emphasis on student curiosities and self-

directed learning, and individual learning pathways, are variations of the overall direction that each of the schools has taken. These initiatives are incongruent with deficit ideology and language as they each have a focus on individual growth and learner agency. This focus appears to have the effect of contributing to the conditions that enable and encourage growth mindsets. The shift in language included a lack of emphasis on labels whether ability, economic, or racial status, and a corresponding emphasis on individual learner growth and development of agency. This was prevalent throughout the interviews at Achieve, Persistence, and the Innovation Academy.

According to the principal, Nate Somers, and the instructional coach, Zoey Dirks, at Achieve Elementary School, there has been a distinct effort at the district level and building level to reduce deficit language and a corresponding conscious effort in the classrooms to give all students access to learning. Mr. Somers described the language as growth oriented; that it is the “language of growth mindset divided into goal setting because it is about everyone being capable, of moving forward, of getting stronger.” Examples of changing the language includes shifting the thought process and language from “my students can’t do this” to instilling the language of “my students can’t do this now, what do I need to do so that they can.” This tenet appeared throughout the leadership of the three schools and was described as part of the design process for one of the schools and part of the problem solving and collaborative processes for the other schools. The language and philosophy reflected by the shift in language contributed to both the culture and the adherence to the vision in each of the schools.

At both Persistence and Achieve, the shift away from deficit language was also attributed to the professional development opportunities that the principals supported related to growth mindsets as well as the modeling from the principals and coaches that occurred. Barbara Ames,

teacher at Persistence, noted that she engaged in a book study on the stances of growth mindset. As a result of this professional learning, her view changed and she began to shift the language that she modeled in the classroom and used in providing feedback. She now models the language of growth mindsets for the students. Growth mindset language is displayed in the classroom as seen in Figure 17. As she and others have changed their language, the language that the students use has also changed even at the kindergarten level. For example, Barbara has observed that if a student says something is too hard for them, other students will encourage them and share that if they keep working on it, “their brains will stretch.”



Figure 17. Growth Mindset poster – Train your Brain

Example of growth mindset concepts in student friendly language posted in a kindergarten classroom.

Jennifer Johnson and Darcy Morgan at Achieve also said that the professional development from books as well as from discussions with colleagues was influential in making classroom language shifts. Jennifer described learning about growth mindset and really taking it to heart and bringing it into the classroom. She sees the impact with the students in that they are helping each other more and taking on more responsibility for their learning and that of others.

Jennifer explained it is not just that they can reiterate what it means but that they actually have a deep understanding of the concepts. They understand that “it’s okay for them not to be good at something at that moment, someone else might not be either but that it is how we are going to get there that matters.” Jennifer and Darcy report changes in the language the students use about their own learning and the language that they use to support one another in the classroom. Shifts in language are modeled verbally and displayed visually on bulletin board such as is shown in Figure 18.

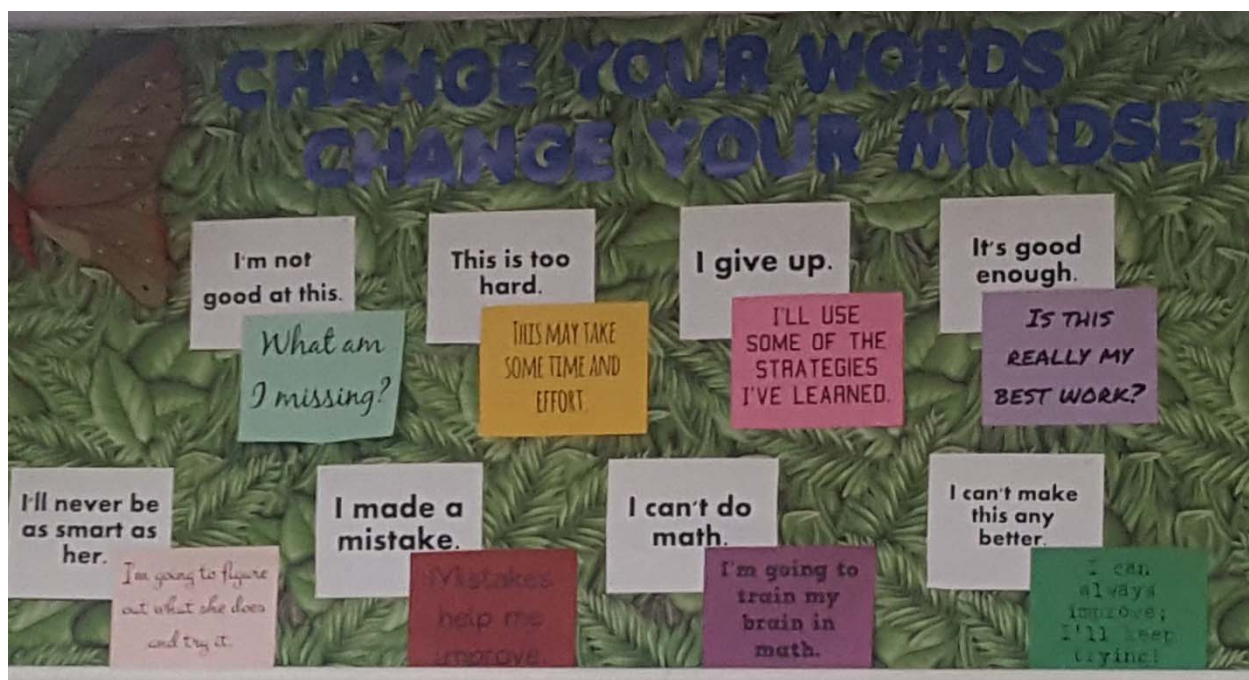


Figure 18. Student friendly language

This picture models student friendly shifts in language at Achieve Elementary School.

Responses from the leadership, from both Mr. Somers and the learning coaches, indicated consistency across teachers that regardless of the categorization of students as free and reduced,

as second language learners, as having a disability, or who are new to the school, there is always an effort by the teachers to try and figure out how they can give their students access to learning and choice in how that learning occurs. Mr. Somers described his perspective that as a result of the work that he and the staff have done related to the ‘heartbeat,’ goal setting, and growth mindset, the teachers are more focused on each individual student. There is little emphasis put on the labels or categories. As Mr. Somers stated, “it’s not the box that I’m pushing you in because you are free and reduced or ELL, rather the box is I need to find things that you can handle to move your learning forward. Students with disability labels or other labels are working side by side with each other with partners or in small groups. It is really about access to material. All students can access material differently and teachers are cognizant of that and work together to figure things out when they aren’t going well.”

Diverse populations

According to Principal Somers and instructional coach Dirks, the shift in language and ideology for themselves and the teachers away from the deficit model and reflective of growth mindsets was also noted with respect to equity discussions, demographic data, and how that data informs their thinking. The student body at Achieve is diverse racially and with respect to socioeconomic status. Mr. Somers, expressed pride in his school and boasts of significant achievement gains across these groups. However, Mr. Somers also reported a need to look more closely at the data related to students with disabilities. For all groups though, Mr. Somers and Zoey Dirks, emphasized that the language shift and the explicit conversations they have had unified their own and the staff’s recognition that students are all at different places in their learning, that they are all capable as learners. Mr. Somers stated that, “We don’t need to describe or label them with terms such as “low readers” or “high readers,” rather, they might struggle with

some areas and the focus is on how to move them forward. If the focus remains on “growing” students, the achievement scores will rise.” According to Nate Somers, Principal, the language related to growth, supports greater student access in the classroom versus sending the students who are ‘low’ readers out of the room to go somewhere else. Mr. Somers describes the shift in language as part of the culture that has been developed and is demonstrated by higher expectations for growth in all of the students. The teachers also reported a sense of shared ownership for all of the students during the interviews vs. this is a particular teacher’s student or specific program’s student as can happen when a student is identified by a deficit oriented label. If a student is struggling, everyone is there to support that student. One teacher described that feeling when she first came to Achieve of being amazed at how quickly people came to problem solve ways to support the student.

Despite the inordinately high percentage of students with disabilities, the staff at the Innovation Academy report looking at students as typical of students anywhere. As Naomi Jackson, learning specialist, indicated, the numbers look different on paper, however, the students are typical of any student in any school anywhere. She and the other staff do not approach them any differently than they would any other student in any other school. Naomi aligns herself and her approach to the students with the core philosophy at the Innovation Academy. This framework is built on the belief that students will be more invested and they will get greater results, if the student is invested in the learning. This belief spans all demographic categories and disabilities. Having voice and choice in their learning is central to the belief structure at the Innovation Academy. That belief applies to all learners regardless of the label they may have entered with. Naomi explained that voice and choice can seem minor, for example, as when completing a book report, giving the student a choice of the book or in writing,

allowing them to choose their topic of interest. Offering students choice and listening to their voice is how they start to close gaps in learning at Innovation, by getting each student invested in their work.

Krista Paulson, Design Specialist, described that she and Noelle, Administrator at Innovation, have high expectations for all employees and students. Krista stated, “We have pretty clear coach indicators, learning specialist indicators and we have a pretty clear understanding of what we want learning to look like for our students, lots of real world experiences, open walled experiences, within the four dimensions of academic, employability, citizenship, and wellness.” The first step is the development of the urgency story for the specific learner. (See Figure 19 for a visual representation of Innovation’s Urgency Story.) Next, they look at what is needed and where to focus effort to help the student overcome the barrier that they are currently experiencing as they seek to achieve their personal goal. “I think all of our language that we talk about is always growth mindset,” Krista explained. “We talk about design challenges. So it's something that we need to solve or we problem solve through. That's our language that we use for anything.”

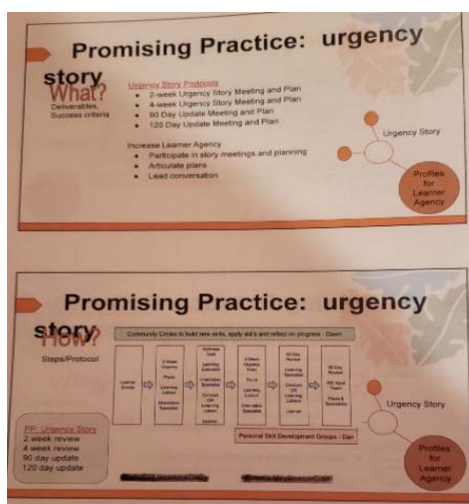


Figure 19. Innovation’s Urgency Story. Innovation Academy’s urgency story for learners

Many of the students at the Innovation Academy had not found success in traditional schools, so a nontraditional approach is seen as opening their learning options and as being beneficial to engaging them and sparking their interest. The mantra that Krista, Design Specialist, and Noelle, Administrator, espouse is that learner success is increased by increasing engagement through voice and choice and personalization. As a result of the mantra and core belief established by Noelle and Krista, learning is recognized as having a different path for each learner. Through assessments, each learner develops their own learning profile. Every learner works at a different pace, everyone is on their own plan designed for their specific readiness and interest level. The language is reframed to emphasize each student's plans to progress toward competencies in the four areas of academic, employability, citizenship, and self-wellness. The plans begin with the development of the student's urgency story, identifying the dimension of focus initially. The process of reviewing the urgency stories occurs at 2 weeks, 4 weeks, 90 days, and 120 days. During the review of the urgency stories, which includes the learner's path to graduation, there is an emphasis on increasing learner agency including participation in story meetings and planning, articulating the plans, and leading the conversations. While every learner's background and school history is different, they are each involved in developing their personal plan. These plans are not impeded by or focused on disability identifications or other labels that traditionally follow a student.

Noelle agreed that negative student behavior is one of the quickest ways to get back to a deficit model or a consequence or punishment model. At the Innovation Academy, Noelle described their approach as "coaching through barriers." In this model, the staff work with the student to determine what it is that is preventing them from engaging in what the student said he was going to do "because it was their commitment, not ours." Noelle explained that the students

set their 24 hour agenda and commit to doing everything on their agenda. If students are choosing not to engage in what they have committed to, the staff attempt to find out why, what is going on with the student, or if something has happened. Coaching through barriers is figuring out what happened, coaching to gain accessibility to their goals, and increasing access to the student's regulation strategies.

The language and the process at Innovation in general, does not appear to provide space for deficit terminology or ideology within the system. Krista Paulson, Design Specialist, indicated that what she and Noelle do most often is to encourage staff in "limiting the language we might use." Krista provided an example of a learner needing to communicate with an employer. A learning specialist might say, "I need you to email your employer and let them know." At Innovation, they reframe the language to give the learner the ownership. In the example of the email, the specialist might reframe it to say, "What would good professional behavior look like so your employer is aware?" Krista explained that the language is something that is very conscious, that "they try to get the staff to think about not using that word "I" and really giving ownership back to the students to problem solve through." Instead of being directive to gain compliance, the staff try to frame a question to problem solve through. According to Krista, "That's probably the one we're focused on the most right now because it's so easy just in the heat of the moment to be directive and tell kids what to do whether, it's a math problem or whatever you need to do, so slowing down and giving ourselves time." However, as Noelle indicated, every once in a while, somebody will slip into an old habit or language pattern, and now even the learners will catch you. Noelle reflected on the culture at Innovation as very pervasive around the concepts of growth mindset. She recalled a situation in a design session when they had a couple of staff members who were 'kind of at the bottom and feeling like they

couldn't take something additional on.' Everybody else was saying, "Well wait a minute, if this is something we agree on... and they kind of challenge and catch themselves on things, which I think is pretty cool."

According to Krista and Noelle, the approach is learner centric. It is reflective of student interest and growth, and not one of deficit models or categorical labels. The philosophy reflects the concept that learning something of interest produces better results. This philosophy aligns with the vision of the school, the culture within the building, the mindsets of the staff, and is applicable to all students regardless of their skill levels or labels. This philosophy is consistent with the honoring of children's curiosities at Achieve and the Next Generation, personalized learning principles at Persistence. One of the characteristics of Innovation that learning specialist Naomi reflected on valuing most, is the concept of perseverance. The teaching staff never give up and they also never want the learner to give up. Rather they keep trying to motivate the students and encourage them "that just because they didn't get it the first time, it doesn't mean they won't get it, that it's above their heads or that it's too hard." Nora King, coach at Innovation, reflected the consensus attitude of, "You can't improve yourself, you can't get smarter the next time, unless you try!" These examples demonstrate the growth mindset concepts that the staff have developed and that have been reinforced through collaboration with peers and administrators in the design process and the administrators' adherence to the learner centric model for growth.

Shifting deficit ideology to agency and goal setting

At Persistence, the abandonment of deficit ideology and language and the corresponding shift to a growth mindset philosophy and culture occurred concurrent with and continued

subsequent to the implementation of the Next Generation learning movement. Tanya Woodworth, the principal at Persistence, sees deficit ideology as incongruent with a personalized learning lens, whereas, growth mindset, high expectations, agency, and goal setting for student learning, fit within the framework. According to Tanya, the framework they believe in at Persistence is one of student voice and choice in their students' learning. Traditional grade configurations are co-opted for flexible grouping and co-teaching in teams that span grades (K, 1, 2; 2-3; and 4-5). These configurations allow for meeting each student at an individual level to move them forward, grouping flexibly when it makes sense to do so, and crossing traditional "grade level" boundaries. Traditional grade level, structural, boundaries have been diminished by physical alterations which have included 'knocking down' walls between classrooms to facilitate co-teaching and mixed groupings, as have the use of non-traditional classroom spaces, including the cafeteria and the performing arts classroom. An example of an altered classroom space in which the walls have been removed is shown in Figure 20. The non-traditional spaces provide environments that accommodates a variety of learning structures and classroom instructional practices. Not only do the physical boundaries allow for more flexibility within the classroom, the structures also facilitate co-teaching and collaboration. The personalized learning format means that what one child is working on might look completely different than that of another student in the same classroom. The learning is not bounded by a label in these environments. Tanya believes that by encouraging a personalized learning focus, a focus on learner agency, and supporting the structural changes to the physical environment, she is developing the conditions to enable the teachers to develop their growth mindset perspectives.



Figure 20. Expanded classroom at Persistence. Persistence has opened classrooms to facilitate cross grade level learning and flexible grouping.

According to the principal, coach, and teachers, the instructional staff regularly confer with students on their learning progress and provide instruction where the students need it. Online platforms are used to support student learning and to monitor progress. The assessments are routinely monitored and if a student's scores have fallen, or the student is struggling to progress in reading levels, for example, adjustments are made or interventions are added. While some students need more guidance along the way and throughout the year, their needs are continually assessed pursuant to the student meeting their weekly goals. Larissa, the Deeper Learning Coach at Persistence, described that she, with the assistance of the staff, revamped their Multi-Tiered System of Support (MTSS) structure to better align with the philosophy of co-teaching and co-serving all students. The MTSS model now provides for 'push-in' interventions

at Tiers one and two when a student struggles. Students are able to stay and remain a part of the classroom accessing supports, strategies, and interventions, without needing a label or leaving the room. In this model, the coach and/or the interventionist provide the additional support or intervention in the classroom.

The teachers at Persistence consistently identified a primary goal for them is to build the students' inner drive so that they can be successful learners anywhere. Students learn agency through this personalized learning process which enables them to self-advocate in the classroom and other environments. The fourth and fifth grade team of teachers at Persistence reflected pride in their students' ability to take on challenges and advocate for their learning needs when they move on to the next level in the system. The team also expressed some concern for their learners moving into the traditional system, after they had developed that agency and self-advocacy and for the next level of the system needing to change and embrace the learners they have coming from Persistence.

Tanya modeled problem solving and removal of barriers of all varieties for the students to enable them to enter the school and be ready to learn. To the extent their conditions could be mitigated, Tanya expected students then to be able to engage and focus on their learning. This modeling and problem solving extended beyond Tanya, and was mirrored in the actions and attitudes of the staff. While some interviewees at Persistence denied knowing the percentages of students in various demographic categories or thinking about their students from a categorical perspective in terms of their learning and achievement, they admitted to making positive efforts to remove barriers to learning for lower income students in a variety of ways. One example was seen when teachers provided and allowed access to food for all students within the learning environments. Staff also collected food and clothing for families in need over breaks to ensure

students had access to food when they were not in school. By meeting the physical needs of the learners, they could ensure student focus was on learning and their own focus was on high expectations for all. Principal Tanya Woodworth was much more direct in acknowledging not only the high level of economic challenges faced by the students, but also the high level of expectations, she and the staff had for these students. According to Tanya, she and the staff tried to keep that in focus as their goal was to have 71% of their students at the 61st percentile. In her words, “That’s our goal and we will be there. Does that include all those kids? You better believe it.” Tanya went on to describe that 56% of the students at Persistence were identified as falling in the free and reduced category. She described parental challenges in getting students to school due to a lack of household vehicles and that it took her about 3 years to get a bus for them. Once she had acquired the bus, the students did not know how to behave on it so she rides both morning and afternoon to ensure their safety. In addition to the rides designed to improve attendance, she described the level of commitment by the school community to ensuring food and clothing for the students.

Tanya reiterated that they hate labels at Persistence because of the long term impacts they can have on students. She does not want to create or sustain any long term negative effects on students or their families. As a result, they do not over refer students for special education, rather if there are students who struggle, they struggle with them, and problem solve ways to effect the students learning and behavior and keep the emphasis on the positive growth. This helps to keep teachers’ language affirming and their expectations high. Tanya specifically recalls a leadership conference that she attended with author Doug Reeves as heavily influencing her views on labeling. She credits him with a discussion related to high school graduation and the exponential, negative impacts generationally, an impact across twelve generations, if a student fails to

graduate. According to Tanya, “That’s two hundred years! Really? That’s the legacy you want to leave that over the next 200 years this family’s going to struggle because you had an issue?!”

She reflected that she must have said ‘a couple hundred times’ the first two years she was principal at Persistence, “is this an adult issue or a child issue?” This was her mantra in meetings to help insure the focus remained on the students and their growth. Her resolve in those basic statements over and over again, she believes affected the belief systems of the staff as well.

Tanya cited as evidence that staff who serve on district level leadership committees or participate in learning opportunities often recite these words they have heard so often. Tanya’s resolve for increasing student achievement, decreasing the deficit focus, and keeping the student at the center, was bolstered by that conference early in her principalship. She has maintained that resolve and messaging throughout her time at Persistence.

Larissa and Tanya both addressed the consideration of categorical data in terms of awareness and identification of disparities. They ask questions such as, “Why are we not reaching...?” group or individual. Both Tanya and Larissa review and discuss data with the teachers, consider what it suggests, and attempt to determine what the issues are and how they might address them. As noted previously, over time they have considered and implemented various grade level configurations, having some configurations that span three grade levels and some that span two. Instead of continuing to focus on ‘getting to grade level,’ they have shifted their mindsets and look at things a bit differently. The focus now is on looking to the assessments and how to move each student forward on them, getting all students college and career ready, and as they said, ‘ready for life.’ Larissa was excited to report that in five years, they have continued to make progress each year. Although this gets a little more difficult as the scores near 80%, every year, they have had growth. Similarly, teachers at Persistence noted the importance

of treating students as individuals, pushing them to reach their own potential and recognizing that they all come from a different place and backgrounds. What happens to the students on a daily basis has an impact, so the teachers know they need to treat them as individuals.

Some of the interview respondents acknowledged that gaps still exist for African-American students and Latinx students. The staff are trying to address these gaps by more personalized, responsive, learning approaches, more culturally responsive instruction, and equitable teaching and learning practices in the classroom. There was some recognition that this was an area of continued need for growth and for building on teacher knowledge. The principal, coach, and the teachers suggested getting to know students as individuals, learning about their families, and their cultural experiences, as well as checking themselves against their biases, expectations and experiences, would be important in maintaining high expectations. They acknowledged the need to be continually cognizant of those factors and to continue to have growth mindsets about the learners in their classrooms. Teachers noted that they felt comfortable seeking support from each other when they are challenged and sharing their successes and failures. This openness to continuous learning about and for their learners, and their willingness to risk exposure of their own vulnerabilities in the process, is indicative of their mindsets.

Other staff recognized that Persistence had higher needs in terms of socio economic levels, but they emphasized that all of the students were loved and cared for and expectations were high as they all worked to reduce the impacts of those barriers. As one respondent, Barbara Ames described, “The staff really just try to focus on the growth mindset of the student and filling them with that knowledge that they can be successful.” Barbara also found it helpful to have an increased awareness about cultural and historical trauma as students are growing up.

Viewing students as a whole and recognizing what is within their circle of influence or control as a staff helps them maintain their perspective.

Tanya and Larissa encourage all staff to think “outside of the box” to develop interventions or remove barriers, such as providing books to students over the summer, opening the school to allow students access to the computer lab, and sending home food over the breaks. These are examples of the attempts by the staff and leadership at Persistence to offset the food insecurities over break, mitigate the summer learning gap, and provide safe activities for the students in the school community. The administrators and teachers make these efforts to address barriers influencing students that exist external to the school in an attempt to positively influence their students’ conditions when they enter the school and allow the students to focus on their learning. Reducing barriers outside of the classroom assists the principal and teachers in maintaining high expectations inside the classroom. The teachers’ focus remains on individual progress, high expectations, and challenging students to grow. These practices reflect the language and expectations of growth and have resisted the return to deficit thinking, language, and ideology. The principal, coach, and teachers reflected with pride their ability to impact their students inside and outside of the classroom. This bolstered their expectations of themselves and their students to continue to grow.

Indicators of Impact

Across the schools, the administrators and coaches described indicators of success as the level of student engagement and agency involved in student led inquiry approaches. They shared examples of students who previously had behavior challenges, who were now demonstrating engagement and interest in learning and reporting success on their work. Behavioral challenges

were minimal at the Innovation Academy according to Noelle, and were a result of the focus on their commitments and goals for the day. My observations on site were consistent with Noelle's report. Students were engaged in learning in a variety of ways, some through online work, some in their gym class, and some who were practicing their vocal skills. At both Persistence and Achieve, the principals reported decreased behavior referrals to the office. On observation and during the interview processes, behavior challenges were absent not only from the office, but also in the classrooms. The administrators ascribed the decrease in behavior issues as a result of the increased engagement of students, by virtue of their voice in their own learning.

Student Feedback

According to each of the administrators, student feedback is important in informing teachers, leaders, and communities of their learning and the impact of the self-directed, inquiry based learning practices. Student survey responses and videos depicting students describing their learning have been used by administrators to inform not only the staff of the buildings, but also school boards and national organizations of these practices. The principals post videos on their websites to show the student perspectives on their learning as well as on their mindsets.

According to the principals, these videos serve to reinforce their messages and practices that they have been encouraging, modeling, and supporting including personalized learning, goal setting, and growth mindsets. As Mr. Somers from Achieve, noted, "It's so much more powerful when they can hear from students. When we video our kids, we asked them what it means for them and students share the value in giving them voice about what they are learning about." The principal reported observable increases in engagement; not only are more students more engaged, they are also able to articulate to the adults what they are learning about. Student feedback, through interview protocols, provided evidence for their continuous growth plan and building goals at

Achieve. Part of the data they sought and collected was the students' ability to articulate the goals they are working on, the method or process to address the goals, and their ability to speak to the success indicators.

Krista Paulson, the Design Specialist at Innovation, explained that exit data from student interviews and systematic feedback from students were in development at the Innovation Academy at the time of the study. While they accessed student feedback routinely as part of their assessment of learning and design processes, for example at 30, 60, and 90 days, overall student feedback and feedback at exit, was at times impeded by the length of the placements and the process by which placements ended. This was noted as a challenge for Innovation. Krista Paulson noted, "We like to give exit surveys. You know our population is super transient, so when they're leaving, if we get enough notice, we give them an exit survey and we ask them those exact questions." The questions are, for example, "So how have you been as a learner since you've been at Innovation? What things are you going to take with that you didn't know before about yourself?" What things are you going to advocate for yourself at the next school?" Krista explained that when they can get that back from their learners, it gives them valuable information about what the students are feeling and how they have changed and grown. It also gives them feedback for their program. Krista further explained, "Our problem is because for a lot of our learners their placement contingency depends on court orders and things like that. They will go to court and then they won't come back that day so we don't then have an access to them. They're just unenrolled and that's the end so the residency with the residential treatment facility is a complete unknown to us. That's a huge barrier for us really tracking the way we want to and I don't know how to overcome that. And it's one I'm struggling with all the time. We get really

great responses from the kids when we can get that information from, the qualitative or the quantitative. It's just really hard to measure.”

Krista reported that they continue to problem solve how to best access student feedback for improvement of their program. The data obtained from students’ learner profiles, goal progress and direct student feedback is brought back through the five layers of the design process. Both Krista and Noelle use the design process to ensure adherence to the vision, as an opportunity for reflection on their progress toward the vision, or mistakes they may need to correct or make adjustments for. One indicator of success that Noelle reported on was the contacts from students and families who desired to return after having returned to their homes and schools of residence. As a result, Noelle and Krista were in the process of developing ways to allow students to continue at Innovation through open enrollment, tuition agreements, part-time enrollments, or virtual school options.

Achievement Data

In addition to student feedback, evidence of the impact of their work was indicated by achievement data for the elementary schools. These increases were not directly attributed to the work on growth mindset itself, but more the next generation, inquiry based, and personalized learning approaches that included student voice in learning and agency that each of the schools espoused, and of which growth mindset was a feature. When the principal, Nate Somers, started at Achieve five years prior, he reported that 20% of students were performing at a proficient level on the state testing. During the last academic year, students demonstrated scores in proficient or advanced ranges of 55-56% on state testing. He reported that results on the District benchmark exams were consistent with the state results.

Darcy Morgan, a teacher at Achieve, indicated the staff had been asked many times about the impetus for their success. She believed it was somewhat difficult to identify a specific driver of their success. There were many things that happened all within a short time frame that combined to make a perfect scenario for positive changes to occur. Darcy explained this as having an influx of new teachers, acquiring new leadership for the building, and obtaining an instructional coach who brought with her many years of teaching experience. These conditions created the environment and the focus that enabled them to change and grow according to Darcy. The new leadership was in the form of Nate Somers' assignment as principal. Nate led the staff to a focus on 21st century skills. Nate's leadership, along with the learning coach, and the new vision all came together within a short period of time. Darcy believed these events created the conditions for, and were the drivers of their success. The school went from being the lowest performing school in the district to the highest performing elementary school.

The focus Darcy was referring to was the 21st century skills focus of the district, including the emphasis on critical thinking, creativity, and collaboration. In terms of the new leadership and the effects on teachers, Darcy described Mr. Somers as supporting the teachers in "doing what we know is right for kids." She went on to state

He supports us in taking risks and never, if something is not working, never making us feel like we made a mistake about it. And I think that's huge. He clearly knows that I don't follow the same schedule necessarily that I am supposed to follow but we clearly communicate about why that is and my kids are showing strong gains. He trusts me to make decisions and I think that trust in making classroom decisions is felt across the building as well. We have a little bit of flexibility that maybe other teachers don't feel and that would definitely be

attributed to Nate (Mr. Somers, principal). I don't know if we would feel that same comfort in thinking outside the box or doing things outside the box a little bit but he supports that and then also supports if it doesn't go the way you thought and you need to make revisions to it, it would not be like we had set it like this. He would never respond that way. It was like okay, so what did you learn from that and what do you want to do moving forward? Just that trust that we make decisions and that we have the evidence to back it up to.

Anecdotally, Principal Somers noted greater disparity with students from low socioeconomic backgrounds than with students from varied ethnic populations. He reported that the gap between racial groups had shrunk and that they had seen significant growth in reading, having just missed the highest category of significantly exceeding. Mr. Somers explained that they went from 'didn't meet,' to 'met,' and then to 'exceeds,' just missing the 'significantly exceeds' category. In addition to the shift to self-directed learning, he and the staff at Achieve attempted to improve achievement by addressing issues related to tardiness, attendance, behavior, and engagement areas. One of the ways they addressed attendance and engagement with students was to initiate "soft starts." When the building opens its doors in the morning, students are able to self-select the way they begin their day, whether through a quiet environment or in a stem oriented project, or a variety of options the staff put together. Examples of these options included Travel Tuesdays and Wonder Wednesdays, and reflected interests of students and staff that developed the activities. These activities encouraged students to come to school and allowed them to start the day with an area of interest and within a flexible time span versus a firm attendance time and in the context of lining-up and marching in. Mr. Somers described that

with soft starts, teachers have been able to build relationships with students, attendance has increased, and tardiness has decreased.

At the Innovation Academy, the philosophy on meeting the needs of varied learners was consistent with those of the two elementary schools. At Innovation, Noelle and Krista shared their beliefs that getting learners interested by voice and choice was the path toward closing achievement gaps. Therefore, the solution at Innovation is in investing in the students, and in their work and growth as individuals. Krista and Noelle believe this non-traditional approach is beneficial to seeing growth and the ability to influence student learning. Students at the Innovation Academy have generally not found success in traditional schools and approaches. As a result, Nora King, learning coach at Innovation, stated that “the biggest barrier to achievement is the students’ views that they can’t do it, their own self-doubt and low self-esteem.” Nora notes that the students come to the Academy with a history of negative school experiences and they assume it will be the same. Nora believes the experience at the Innovation Academy is largely influencing them by having that growth mindset, believing in them, setting high expectations, and showing them that you care about them. Nora and other staff at Innovation remind the students of their goals and at times, brainstorm new goals. According to Noelle, talking with the students about their progress and revisiting their goals helps them to set their mindsets toward growth. Monitoring the student progress reinforces the mindsets of the staff as well.

Classroom Impact

At Achieve, Mr. Somers reports the focus with students is on building relationships of mutual trust and respect. There is not a lot of emphasis on punitive responses such as moving clips on color charts or having students stay in for recess. Mr. Somers explained that he and the

staff emphasize language that honors and maintains students' dignity. The instructional practices are intended to engage as many students as possible and are aligned with the professional development they are doing with respect to trauma and culturally responsive practices. Mr. Somers reported that he and the classroom teachers avoid punitive measures or engaging in acts of social humiliation of students to manage behaviors and that the relationships and focus on engaging students in their learning has been largely more effective in improving student behavior.

Success is also indicated directly by the impact reported in the classroom. One teacher, Jennifer Johnson, reported that she has been spending a lot of time learning about growth mindset in the classroom, incorporating what she is learning, and seeing the impact. Jennifer participated in a book study through her leadership committee work. With support from Mr. Somers, she has been able to collaborate with her colleagues and share what she has learned with others. As indicated previously, Jennifer reported that the students are helping one another more and that the students have a deeper understanding of their own learning and the language of growth mindsets used to support them. For example, "It's okay for me not to be good at this right now and somebody else might not be good at it right now either; it's how we are going to get there that matters." Jennifer reported that it is helping her to get to know her students on a deeper level. Another educator, Darcy Morgan, explained that the students attempt to explain their work more clearly to other students or to adults or to check their work with another strategy. In this way, Darcy explained, the students get a sense that what they are working toward, for example, using a rule or a strategy that they try, may or may not work. Darcy further explained that the students learn they can add strategies to their toolbox and that they might be able to achieve the

goal later. Examples of the language and visual depictions reinforcing the language are shown in Figure 21.

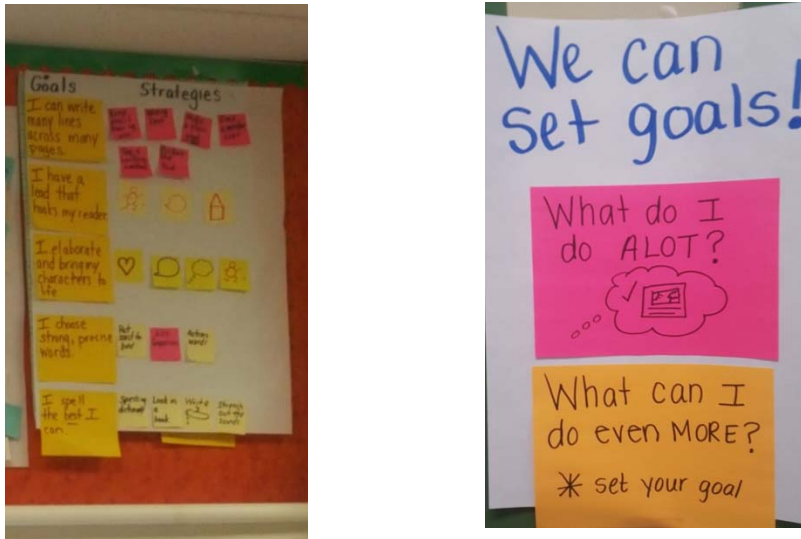


Figure 21. Student goals and strategies. Examples of goals and strategies posted in a second grade classroom.

In Darcy's classroom, she and the students frequently talk about things that want to do but are not able to do yet. Darcy reports that there is always a poster by their kindness board as a method to monitor progress. She and the students post actions that they are not yet able to do and remove the posted notes when they are able to demonstrate that particular action or task. Darcy and the students have celebrations when items are achieved. The notes can be related to any task, such as riding a bicycle, however, they also track and celebrate reading goals and goals in other content areas, and set and monitor new goals. Darcy described that the students all have individual goals across content areas. The students also have partners to check in with on goals, progress, and tips for each other. The feedback given by students in second grade is described as

a tip. Students will say to one another, for example, “I could help you with this goal by...” and giving their partner a specific tip. At the second grade level, Darcy and her students describe feedback as tips that come in three parts. Those parts include complimenting someone on something, asking a question for more information to show you are curious, and then giving a tip. This approach as being used “across the board, whether its behavior, math, reading; it’s kind of a formula to honor what the student is doing well.” According to Darcy, goal setting and growth mindset are built in to everything they are doing. She includes her goals on the board and models goals setting, struggling through challenges, and celebrating success with her students. Evidence of goal setting and growth mindset language in Darcy’s classroom can be seen in Figure 22.

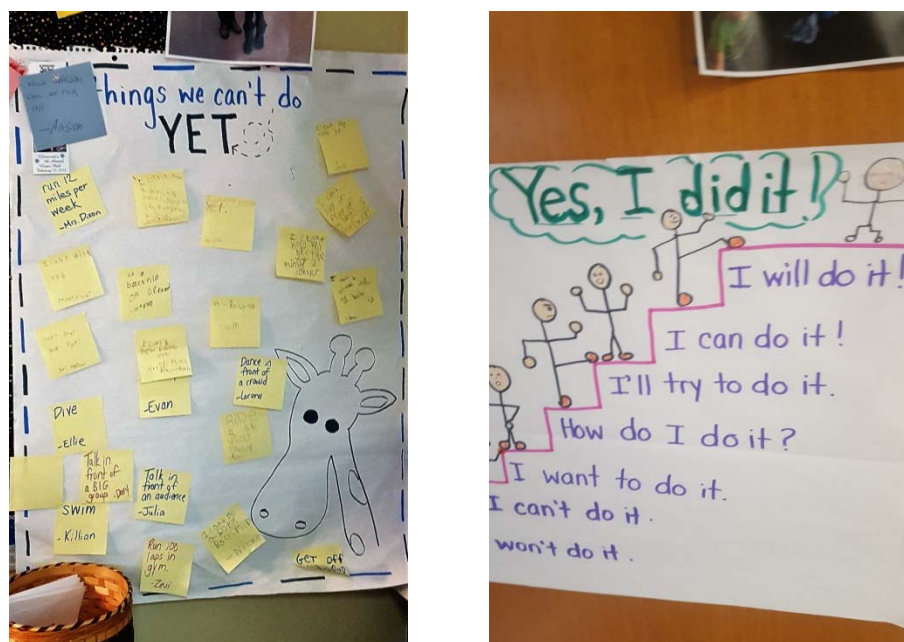


Figure 22. Growth mindset and goal setting posters. Examples of growth mindset language depicted in student friendly language in the classroom.

Darcy also described evidence of success anecdotally, through her own observations, and through quantitative data. In terms of observational data, she observes that the focus on mindsets for learning in her classroom, has resulted in students who are much more willing to collaborate, take risks, make mistakes, and persist in their learning tasks. An example that Darcy shared involved a situation during a visit from teachers and administrators from three different schools. The visitors were observing her classroom during the week prior to the interview with me. Darcy estimated that this involved approximately 30 observers in her classroom. The student activity was designing houses for the 3 little pigs with students using straws, or sticks, or bricks (index cards). Darcy was answering questions from the observers while the students worked for approximately 45 minutes in small teams to design the houses. During this time, only about half of the students finished. Darcy reported that there were no tears and no requests for help during that time period. To Darcy, this was evidence of the mindsets of her students that they would keep at it, working at their projects, trying different or new approaches. According to Darcy, none of the students saw their work or lack of completion as a failure or as a negative. Some of the teachers visiting commented on how independent the students were. One visiting teacher commented to Darcy, that her students “would never be able to do that and work independently for that long of a time period, that they would be approaching her for help right away.” Shortly thereafter, the same visitor had entered the student’s arena, stepping in to cut a box for them. Darcy reflected on that situation and how it relates to growth mindset principles. Darcy proposed that the visiting teacher’s actions, including her inability to not intervene even in someone else’s classroom, as likely to be the reason why her students ask for so much assistance from her so quickly. Darcy was unsure if the students had asked this adult for assistance or if that teacher had just stepped in, but she indicated that often teachers tend to want to step in right away because

they do not like to see students struggle. In the beginning, Darcy admitted that it can be really uncomfortable when students are not used to that struggle. According to Darcy, the students at Achieve are used to this productive struggle a little bit more and they are able to work through it.

Another language and growth focus area for Achieve is that of personalized goal setting, not just in the content areas, but also with respect to behavioral strategies and practices and social skills. According to Jennifer and Darcy, they are not only focused on the students learning particular skills but also on how they can best learn those skills, and in the kinds of social settings they can create where students are working collaboratively to achieve different outcomes. Darcy described, as Nate Somers had, that most of the teachers at Achieve have implemented a ‘soft start’ in the morning “where kids get to enter their day in a way that helps them kind of get centered and ready for the day.” Instruction does not start right away. Darcy elaborated, “Oftentimes our mornings are structured where kids can come in and they can select an activity that they want to do or they can research something that they've been curious about, or they can sit with a book and a partner. It is just a way for them to enter the day at their own pace. That practice has allowed for a lot of one on one time and the ability to develop relationships with students versus what has been more typical, having 24 students enter class all at once with each person having something to tell you or share.” The students arriving in this manner provides students with a calm start to the day. Darcy acknowledged that it is more of a routine than it is a practice and described it as “just great for kids, and when it is time to come in and get ready for a morning meeting, the students are just there, they're ready to go. They're in the mindset for learning.” At Achieve and in her classroom, Darcy states that she sees student engagement as follows: “I think the kids just sort of have a mindset to learn and improve and to help each other do that. I think you also see it very frequently in terms of how engaged students

are.” This is also a reflection of how she sees the staff in the building and what they model to the students.

Both of the elementary schools were able to boast of being the highest performing elementary schools in their respective districts. Administration, including Tanya and Larissa, and teaching staff alike at Persistence reported high marks on statewide assessments indicating having met and exceeded expectations for the last 2 years. According to the 4th and 5th grade team of teachers, Pat, Jackie, and James, the frequent visitors to the building are amazed by what they see and hear in the classrooms. The fourth-fifth grade team describes that the visitors take pictures and interview students and staff. Visitors not only see the data regarding the increasing achievement levels of students but also hear from the students about their learning and the agency they have developed. Pat, Jackie, and James reported that they themselves are “blown away by how well kids have done here. Kids persevere and show their best selves on tests.” Kate Christensen confirmed, “Here, they don’t teach the test, they teach how to be a learner, how to think, how to stretch your mind. The test scores reflect how well they have done every year. Kate believes they will hit the target again this year.

Reflecting on growth mindsets in the classroom

Kate described that growth mindset is ingrained in what they do. It is all year long, not just “today we’re going to do this lesson on growth mindset.” She said, “It changed me as a teacher in my language to the students.” Kate described that the year that they really brought growth mindset to her attention and she learned more about it as a teaching practice, “it made her more aware of how important it is to focus on the kids understanding of how to view challenges in their life, both academically and outside of that. Instead of telling it, teaching it, and

practicing, we are always talking about all the skills having a growth mindset are.” (See Figure 23 for a visual display emphasizing challenges and goal setting.) Kate notes that growth mindset perspectives “help make you a better teacher, to help the students become better able to see themselves as a better learner and to have them become one in practice. I think it becomes part of them and I’ve always said mistakes aren’t bad but then to actually look at the way they do things, and in different ways, and in the language that I use - I don’t always use some of the questions for growth mindset that are posed, but when an opportunity comes up, that’s what I’ll use. It becomes a way of teaching once you understand it.”

Barbara Ames put it a little differently in stating that one thing that shifted for her was that she had previously thought negatively about the students who do not have help at home. “So a lot of times our poverty kids, I used to just think they’re not going to get it (help) at their house but now I just realized more that they might not get it when they’re with me. I see that now.” For Barbara, part of it is being at a school long enough to see that they are reaching where they need to be and they are going to grow up and be successful. “You know, we do have quite a bit of control of what they were learning throughout the day and you know they’re still getting there. They just might not get there this year and that’s hard to get over a little bit. But you have to think about what you do have control over. That kind of comes into play here.”

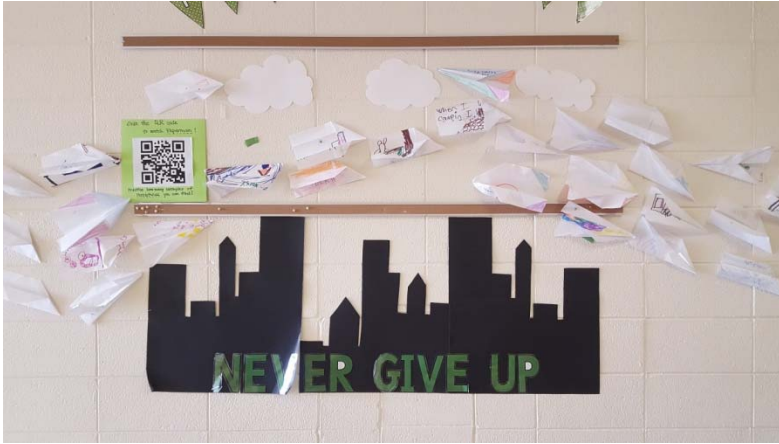


Figure 23. Challenges and goals bulletin board. Student challenges and goals are indicated on the paper airplanes on this bulletin board.

Tanya, principal at Persistence, noted that they would not be where they are today if their philosophy, goals, and priorities didn't reflect growth mindset. She explained that she has changed her mindset as have the staff. As a result of the changes in their mindsets, they have also changed the practices they now engage in with students. Tanya noted that she has many "seasoned" teachers here who were taught in the old school and "we didn't have a growth mindset in the old school." She recalls saying to parents, for example, "he didn't learn how to add fractions. Maybe next year." She questioned herself, "What was I doing? That's pathetic. I said it in this district so it was less than 18 years ago. No, that's not okay. If I have to work on adding and subtracting fractions for the next three months, we're going to get there." Tanya reflected that there are days when she cannot believe the things the teachers are saying. For example, she would not have believed that teachers would have admitted to feeling threatened or embarrassed "when others do better than me" as was the case for some respondents on the growth mindset questionnaire. Although that is a fixed indicator on the mindset questionnaire,

Tanya felt it significant in the relationship and in the teacher's self-awareness, that it is a "pretty deep thing" to admit to your partner as an issue.

One of the results of their focused work on growth mindset, according to Tanya, was the lack of behavior referrals, of students being sent to the office. Tanya cited the counselor's work on "Zones of Regulation" as an example of not only how colleagues at Persistence influence and lead each other, but also as an example of how that work resulted in student self-assessment of growth mindsets in the classrooms. Students rate themselves on the elements of growth mindset such as grit and empathy which provides a baseline for the growth mindset stances. Tanya connected this work with the school surveys which are focused on feeling safe at school and having connections with others. Both of these indicators are used as a basis for teaching teachers about growth mindsets and social emotional learning supports and strategies, and to allow students to access the supports that they need when they need it. Evidence of the teachers who have embraced growth mindsets are reflected in greater growth for students academically and behaviorally. With respect to teachers, Tanya noted, "They talk the talk and walk the walk and you see it with the kids."

Larissa stated that one of the effects of their work with growth mindsets was in changing the experience of the learners. Larissa described that they have changed the learners' experience to enable the development of relationships with other students outside of their own grade level or team. The extended grade span teams have expanded opportunities for students to develop a more diverse range of friends through the teams and families they have connected with. Anecdotally, the 4th and 5th grade team of teachers share many successes that are not reflected in test score improvements such as stories about how much children want to come to school, and parents that come in and say, "My kid doesn't want to go on spring break, they just want to stay

here!” Those are examples of some of the comments that occur because of the safety of the environment for learning academically, behaviorally, and socially, according to the team of Pat, Jackie and James. Additional anecdotes related to their success were related by Tanya for those students that had the Next Generation learning model for most of their elementary school years. Tanya reported that parents went to school board meetings and wrote letters to try to effect change at the next level up. Tanya believes that speaks to the level of urgency that was created for the students to advocate for themselves and say, “I deserve to have an education. If I’ve already demonstrated this to you, then (show them) take me to the next step.” Both Tanya and the 4th and 5th grade team reported that these students did not want to see school as a waste of time, that they really want to go to school and to learn. They see the students as the biggest advocates, sharing their experiences in their homes, and advocating to their own parents as well as to others.

Safe Environments

Naomi Jackson, at the Innovation Academy, reported high expectations for learners, within reason, by the staff. “Within reason” was intended to recognize that almost all of the learners at the Innovation Academy have come from challenging situations or traditional school experiences that had been difficult. Naomi described student goal setting as a common practice at Innovation as was an intentional orientation toward routines as being important for the students to know what they can expect and what is expected of them, when they come to school. At the same time, Naomi identified flexibility as being “super important.” The teachers and students work out changes so that when something happens, the students are comfortable with the changes and can manage their behaviors. Naomi came into the position thinking that she had a growth mindset but she did not really know what the needs would be like. Naomi has been

“delightfully surprised” by the level of success that they have been able to attain. While it might be hard for others to understand, Naomi has found that the students are typical of any middle and high school age students. Naomi described that staff are always flexible. If they do something and it does not work, they learn from that and do something else; they “kind of roll with it here which is super important.” Growth mindset for Naomi is demonstrated by her high expectations, flexibility, and willingness to learn from mistakes.

Bonnie Dawson, learning coach, describes that she always put the students as a focus; it is not what she does, it is what they do that is important. Bonnie attributes all of the successes to the students. She learns from them and gives them the tools that they need but she credits the students with the successes. Bonnie believes that the relationships that they develop with the students help to make the students feel safe and provide them with an element of trust to grow and learn from their mistakes. Nora King, learning coach, also reflected her mindset in practice. She described always starting the day with a clean slate, both behaviorally and academically. “If someone isn’t able to tackle a concept one day, it doesn’t mean that they can’t another day. One approach doesn’t work with every kid, they all learn differently, see things differently, so you can’t just take one approach and assume that it’s going to apply to everyone.” Nora discussed valuing perseverance most in the classroom. “Just because a student doesn’t get it the first time, it doesn’t mean they won’t get it, it’s above their heads, too hard, etc. You can’t improve yourself, you can’t get smarter the next time, unless you try.” As a teacher, Nora believes she needs to keep trying to convince them and motivate them. She never wants a learner to give up. Naomi, Nora, and Bonnie all described growth mindset perspectives they subscribe to and the resulting practices they implement in the classroom. These perspectives not only help them to

develop positive relationships with the students, but also establish a safe environment for learning at the Academy.

Evidence of a safe environment for learning and developing growth mindsets was extended to the staff at Achieve and Persistence. Tanya described this safe environment in terms of the fact that elements of the teachers' practice change every year. The teachers model the acceptance of and implement the changes every year with their students. Teachers continue to try new practices and if things are not working or they could do them more effectively or efficiently, they will change it. According to Tanya, teachers now have the attitude that they can change their instructional delivery, for example, without fear of recrimination or embarrassment. The safe environment for teachers lends itself to safe environments for students, as teachers model the practices that occur with the students.

Reflection and Reappraisal

Each of the interview participants were provided with the following definition of growth mindsets on their copy of the question set for the interviews:

“Mindsets are beliefs we have about ourselves. Growth mindsets reflect the view that intelligence is malleable vs. fixed or static. A growth mindset perspective includes that targeted effort will increase learning and growth, challenge is useful and part of, or an opportunity for learning, mistakes help us learn and failing doesn't reflect our worth, targeted feedback can help you grow and develop, thinking about thinking (metacognition) is important in learning, and persistence and the belief that one can overcome obstacles and challenges.”

I asked the participants to reflect on their view of growth mindsets over time, to consider what they previously thought about growth mindset and diverse student groups as compared to their current thinking. This introspection provided insights into the transition from fixed mindsets or a surface level of understanding of mindsets to a deeper reflection of the existence and relevance of growth mindsets. This question often reflected the individual's personal growth mindset as well as a continued commitment to growth mindset thinking. The reflections generally fell into categories of personal growth from professional development and collaborative work with peers, modeling and risk taking, the importance of, or impact on, classroom practices, appreciation of collegial work and learning from each other, and often for the leaders, a continued commitment to the growth of the learners in their buildings. The reflections they provided mirrored the themes that emerged from the interviews.

Personal and Professional Growth

Larissa Smith, Deeper Learning Coach at Persistence, reflected on her personal experience with developing a growth mindset and how that influenced her. Larissa explained that when she was younger, she believed that intelligence was something you were born with and that a person would never be smart or intelligent in a particular area or wouldn't be able to do certain things if they weren't naturally talented in that area. Over time, Larissa has come to the realization that it may take her longer than others, but she will achieve whatever the task. As a parent, Larissa models that philosophy to her children, assuring her daughter it is okay if she doesn't go to a four year college instead starting at a technical school. Larissa repeats her message to her children and hopes they will buy into her mantra.

Larissa's explanation provides an example of the modeling she provides not only to her own children, but to the staff at Persistence. She uses her personal experiences and growth as a foundation to demonstrate to others the importance of a growth mindset, especially for those students who struggle academically. She has used her experience to propel inclusive practices forward at Persistence both in the multi-level system of support structure and with regard to services for students identified with disabilities. Larissa's teaching experience in the building assisted her in establishing the collegial relationships and trust necessary for her to provide instructional leadership and be an effective coach to the teachers at Persistence.

Barbara Ames, Teacher at Persistence, reflected on a shift in her thinking about students living in poverty from a negative stance to a more accepting and growth stance. Barbara described having thought negatively about the students who do not have help at home, whether due to their parent work schedules or staying late in daycare, or other reasons. Barbara now realizes that they might not always achieve as much as she would like when they are with her either. She has learned to reflect differently on the students in her classroom. Through professional development, collaboration, and the vision, she has learned to recognize and understand that the students 'will still get there' they just might not get there as quickly as she would like, perhaps not even in the same year. As a teacher, that can be challenging to accept. Long term, however, Barbara is able to see that based on where her students skills are, she expects that they will be reaching their achievement goals to allow them will to grow and be successful.

Reflecting on growth mindsets and diverse learners, Kate from Persistence realized that she is constantly evolving as a teacher. Kate believes she truly emerged and became her "best self" when she recognized that she still has a lot to learn and that she can gain knowledge from

her colleagues, including younger teachers. Continuing to learn and recognizing the need for continuous improvement doesn't lessen a teacher's value, according to Kate. Developing a growth mindset helps make you a better teacher which helps the students overall to become better learners, and more specifically, helps them to see themselves as better learners. A growth mindset philosophy becomes a part of them and helps them to recognize that mistakes are not bad but are an opportunity to learn and do things differently. Kate acknowledged that she doesn't always use growth mindset language in a prescribed way, however, she does when questions and opportunities arise. Once she understood the language and philosophy, growth mindset principles became a part of the way she teaches. Kate highly valued learning alongside of her colleagues and appreciated the principal for encouraging this learning and ensuring opportunities were available to the staff for the benefit of both the teachers and the students.

Belinda summed up her reflection from the perspective of skill development. She described that earlier in her career, she would have assumed that a student who desired to do well, would. Her philosophy has not changed. Belinda now believes that students will do well if they can. She believes her mind has really opened as a result of growth mindset, mindfulness, and trauma sensitive trainings. Belinda's mindset now is that every child is doing the best they can. Sometimes they have not developed the skills yet to achieve a task. Instead of faulting the student, Belinda believes it is a matter of building them up, and teaching them the skills they currently do not possess. In order to teach the students these skills, she and the staff need a growth mindset. For Belinda, professional development opportunities that the principal provided access to and encouragement for, were keys to her learning and broadening her perspectives. Belinda is part of the leadership team, often working with Tanya and Larissa, to extend learning to other teachers in the building.

Growth mindset leading to changes in practice

As an intern and part of the fourth and fifth grade team at Persistence, James' perspective was one of being new to the teaching field. Professionally, he was able to reflect only as far back as his field experience. Prior to his experience at Persistence, James did not believe that it was possible to differentiate to the extent that he sees in the classroom especially, with the numbers of students they are working with. At Persistence, most of the rooms are multi-grade level with 40-50 students. James recalls wondering how it was possible to teach that many students and make sure that all of them are growing at an appropriate rate and developing the necessary skills. James also admits to prior thinking that online platforms like *Achieve* were kind of a cheat for teachers and that it reflected poorly on teacher's desire to teach. James' perspective has shifted significantly. He now believes the online programs are crucial and that differentiation between two large classrooms is possible. James was a direct recipient of and participant in, the modeling and collaborative experiences that were provided by his co-teaching colleagues and the experiences that Tanya and Larissa encouraged, supported, and enabled. As a result, he described his attitude shifting from one of skepticism, to one of expanded opportunities.

James' colleague Pat, reflected on mindsets from the perspective of the leadership's advancement of the personalized learning vision and the professional development provided. In Pat's view, mindsets have not been fixed at Persistence, they have been growth oriented as they progressed with personalized, next generation learning. With regard to diverse populations and student achievement, Pat believes all students have the ability to grow. Earlier in her career, Pat reflected on her own practices and beliefs and admitted that she used to think the teacher needed to be in the front of the room instructing and lecturing in order for the students to learn. Her perspective has changed completely as she now believes the less she lectures, the more they

learn. Pat reflected on teaching lessons of 45 minutes to an hour. Her lessons are now 20 minutes or less which she believes is more aligned with student attention spans. Homework is no longer thought of as an assessment, rather it is now considered practice. Pat's team of colleagues concurred. As a whole, the team believed the focus on the personalized learning framework and vision at Persistence, the professional development, and the collaboration encouraged by the principal, resulted in not only improved teaching practices, but also in developing growth mindsets among them.

Jackie was the third member of the fourth and fifth grade team. She reflected that she used to think about growth mindset more for the students and less for herself. Jackie has always believed that a growth mindset was important for students to be successful although, it was not on the forefront or verbalized as much. Jackie mused that growth mindsets may have been taught more at home through conversations about what happened at school, grades that were received and discussions around what the child might need to work more on or study harder. Now, however, they teach and consider these issues in the classroom. Jackie and her team indicated that Tanya and Larissa provided explicit opportunities to examine their individual mindsets and to engage in professional development on growth mindsets. These efforts made growth mindsets more explicit in nature with respect to the students as well as their own mental frameworks.

Nora King, Learning Coach at Innovation, described her growth professionally and the changes she made in her practice as a result. She attributed her growth to the collaborative environment and the design process established by Noelle and Krista. Nora appreciated the modeling of the Learning Specialist that she worked with and the learning that comes with working with her side by side. She found of the Learning Specialist as particularly useful. Nora reflected that she once thought if you were not automatically good at something, then you will

never be good at that thing. She now realizes that is not true, however, Nora believes that is consistent with how students think. While you might not be the best, and even if you are really good at only one thing, there is always room for improvement. Nora now also believed that you learn something new every day, whether it be from a student or a co-worker.

Nora feels she has definitely increased her growth mindset and has changed her practices as a result. She does things differently now and she views learning and teaching differently. Nora now makes completion the goal vs. seat time (minutes/day on task) and builds in time to makeup and correct their work. She builds in these opportunities to teach the students that no one is perfect and the work they do is not going to be perfect. She attributes some of her success with students to refocusing on the student's goal vs. amount of time spent on a task. Nora reflected that she used to think that there was a pretty standard way to teach. She now understands that everyone learns differently which means that you need to teach differently as well. All of these teachers reflected on their own learning and mindsets and the impacts on their classroom practices. Some of these changes in practices are delineated in Table 8 on the following page.

Table 8. Impact on Classroom Practices

Table demonstrates changes in practices as teachers changed their mindsets. The left side of the table shows prior practices. The right side reflects the progression to current practices.

Pre- Growth Mindset Practices	Post-Growth Mindset Practices
Task completion focus	Goal focus; De-emphasize seat time/time on task
Emphasis on homework completion	Build in time for make-up work and corrections
Teaching within the student's zone of proximal development	Stretching beyond the student's zone, providing guided practice
Teacher Directed	Student led inquiry/interest based
Homework as assessment	Homework as practice
Scaffold in advance	Scaffold after exploration
Teacher expert in all areas; pre-planned all possibilities	Students are engaged in problem solving solutions as they arise
Small group or individual instruction necessary for student growth	Growth can occur in large group setting, access is key

Darcy Morgan, Teacher at Achieve Elementary, explained how her perspective has changed and evolved over time as a result of risk taking that was encouraged by the principal as well as the work toward the vision. Darcy's mindset about what second graders are capable of has changed. She recalled that previously, she needed to know how to do everything herself in order for her to model and teach it appropriately. Darcy believed she needed to facilitate success on the front end for her students with scaffolds and supports in place at the beginning. If she did not have these supports in place, she did not believe she was teaching well. Now Darcy reports being much more comfortable "in the mess" of letting students try first, seeing how they do, and then navigating what should happen next. Darcy now believes the students need opportunities to

have multiple entry points and she can adjust for them from those entry points. The students do not always need scaffolding on the front end; she can scaffold once they get started.

Darcy described previously being very aligned conceptually with the students' zones of proximal development. Now, she believes she needs to teach them something that is a little bit out of their reach, and give them guided practice. At times, she just lets them explore and observes what they do first. This is a much more effective way to get an accurate sense of what the students are capable of according to Darcy and she is frequently surprised by what they accomplish. Darcy also recognizes that she is not going to know everything prior to the students knowing and learning. Darcy's mindset has definitely changed. She has learned to trust the students, to follow their lead and their curiosities with respect to their own learning. Following the students' lead was a risk for her in her professional practice but she believed the principal had confidence in her and supported her, knowing that she was working in the best interest of the students.

Darcy provided an example that occurred during the research and inquiry time on a Wonder Wednesday, a time when students get to investigate something of their choice. She and the students developed a chart describing what they might do when they are curious. On one occasion, one of the students was stuck, unable to think of something. As a class, they brainstormed another chart for what they might do when they are not curious. Early in her career, Darcy would have planned for that event. Now, she believes it to be a perfect opportunity to bring the students together and discuss and problem solve solutions. The group discussed ideas for classmates who might not be curious and co-constructed an anchor chart. According to Darcy, the students offered great feedback and had ideas for what to do. Instead of creating that on the front end and anticipating a problem that could or might not happen, it was more authentic

and more relevant as it was happening in the moment, according to Darcy.

Darcy offered this as an example of letting students try things out, adjusting, assessing, and knowing that in that situation, that students were completely comfortable. This example also reflected how she has changed her practice over time, taking risks of not being fully prepared as she continues to implement the school's personalized learning vision of honoring student's curiosity. Darcy reports full support of her principal as her practice continues to evolve.

Growth and shifts in mindset and philosophy

Kate, teacher from Persistence, reflected on whether growth mindset was just good teacher practice. Kate believes it to be especially important in the early years of school as it is easy to let things go without repercussions for homework and grades if students struggle. Kate related growth mindset thinking to mindfulness in that if you practice when things are calm and easy, then when it is time to do something more difficult, the strategies will be easier to use. Kate explained that growth mindset language and strategies could be done without specific instruction. Growth mindset strategies of self-talk, reminding yourself that you just can't do this yet, but that you will be able to get through it, apply even at the kindergarten level. The students can take the growth oriented words use them in their daily context; Kate has heard them talk about being flexible and having empathy. According to Kate, "Sometimes we don't give our kids credit for what they can do if we expose them to the language and the ideas." She added that a good teacher would promote a growth mindset regardless of whether they were instructing based on those stances or specifically teaching to it. However, she acknowledged that it can be difficult to fit everything in unless you make a point to do so. Growth mindsets could be something that might just "fall to the wayside." Kate appreciated the professional development opportunities

that the principal provided and the collaboration time to share ideas with her colleagues around the growth mindset stances.

“I used to think that it was too hard; there were too many kids and it was too hard to make a difference, and now I know that’s not true” reflected Naomi Jackson, Learning Specialist at the Innovation Academy. According to Naomi, mindsets play an important role with interactions every day. If she did not think she could make a difference, she would not be able to teach well. Naomi stated that she came into the position thinking she had a growth mindset but that she did not really know what the needs of the students would be. She reported being “delightfully surprised” by the level of success they have had. They are always flexible and if something does not work, they do something else. Naomi appreciated the collaboration with her colleagues and learning from one another. She knew of Noelle’s reputation from her previous employment in the district that Noelle had moved from. Naomi valued Noelle’s leadership and vision for personalized learning for students and sought to work with Noelle and to continue learning about and implementing personalized learning from the classroom perspective.

Jennifer Johnson, Teacher at Achieve Elementary, reflected that she used to think growth mindset was just a word. Now, she believes it is more internal, more a part of you. Jennifer explained that before she learned about mindsets, she believed her thoughts to be like any other teacher. For example, when the principal shared that they would be talking about goal setting and growth mindsets, her initial thinking was that it was just one more thing to do and to learn about. Now though, Jennifer actually can see that it is part of your identity and that you want to know when there are other people that are fixed minded or growth minded surrounding you. So while she initially was resistant and did not want another thing to learn, she believes it has “opened my eyes more.” Now, Jennifer appreciates her understanding of growth mindset and can see it in

everything she is doing. As an example, Jennifer shared that in the beginning of the school year, they were learning about ‘training our brain.’ At that time, she didn’t realize she was teaching the students about growth mindset. “I think sometimes people just see growth mindset as a word instead of really understanding it and I was one of those people.” Even though she wasn’t excited about it at the time, Jennifer attributed her growth and the development of her own mindset to the principal’s leadership in setting the building goals and providing opportunities for professional development and collaboration.

Jennifer shared that she has communicated and modeled growth mindset language for parents. This year, she has had parents that come back and tell her that when their child is reading at home that the child kept saying they were going to persevere through it. Other parents have shared with that their child has told them they were going to be flexible thinkers that day. According to Jennifer, the students are communicating with their parents, expressing pride in their achievements, and are using growth mindset language as they do so. She described proudly that they are being flexible thinkers who own their own mindsets. Jennifer shared that when they talk about something they did incorrectly, they now express that means they didn’t meet their goal yet. They know that they have something to work on and they make a plan to do so. Jennifer added that she sees now more than ever, that children get excited to see when they have mistakes on their paper and they will literally tell themselves that will help them learn. “That has been huge!” according to Jennifer. The students see it as being okay that we all make mistakes and that is what is going to drive them even more and help them learn about themselves in the process. Hearing that the students were learning and applying the growth mindset language and perspectives even outside of the classroom was exciting and reinforcing for Jennifer.

Bonnie Dawson, Learning Coach at Innovation, reflected that she used to think that the

adults did more to expand a child's way of thinking and to encourage curiosity. She believed that to be true for everyone that everyone was "looking at the world through bigger panes of windows rather than with blinders on." Through her career experiences, she has realized that was not true of everyone. Bonnie surmised that her views were derived from her small town heritage and that she had been lucky to have the arms of her family and community surrounding her. Bonnie reflected that through family, she learned that you never quit learning. She realizes that everyone has not benefited from the type of background she had, a fact that has influenced her and the career choices she made. Bonnie expounded on her views that it "takes a village." She is dedicated to being part of that village.

With respect to growth mindset specifically, Bonnie explained that students learn about their mindsets at the Innovation Academy. According to Bonnie, the staff work first on finding out where the students are, what skills they have, what limitations they have had. The staff then encourage the students to broaden their skills, and expand beyond the limitations. Together, the staff and students continually strive to get to the next step. Striving to get to that next step is especially critical for students with disparities that come from varied circumstances, whether income related or family situation, or where they live, whatever story they come in with according to Bonnie. There are so many varied experiences the students come in with and that keep them "in a small box." The more they can broaden that box and open it up for them, Bonnie feels, the better the job they are doing as a staff. Bonnie is aligned with the philosophy and vision that Noelle has set forth and appreciates the time she has to collaborate with others in similar positions as well as with the larger community and staff through the design process. Bonnie has come to learn that there are different pathways for each person, that not everyone is the same even if they have similar interests. As a staff member, when you give the students independence

and step back, they become more independent. According to Bonnie, the students have to feel success and not be told just in words. Bonnie has deepened her perspectives and philosophy through the collaborative design process at Innovation but also through the vision of personalized learning set forth by Noelle.

During the interview process and observations, Nate Somers Principal at Achieve, reflected that his own mindset evolved from thinking that students who were in the high performing group, would continue to be high performing; the students performing at lower levels would continue to perform at lower levels. Now, he realizes that all students can grow. They may grow at a different paces but all students are capable. They all can grow and often more than people give them credit for or expect. Nate has used the resources of the building to ensure that teachers have the opportunity to engage and learn from each other and to expand their mindsets. He credits the coaches and teachers with the willingness to collaborate and learn with each other as the drivers of change at Achieve.

Zoey Dirks, learning coach at Achieve, described her thinking over time in this way. Zoey previously believed that the only way to move student learning forward was through small group instruction. Now, she understands that whole group instruction and offering all students access is much more important. Zoey shared thoughts in relation to good instruction, delivery, and growth mindset; she would not equate growth mindset with good instruction but sees growth mindset as necessary for reflection. Without a growth mindset, one might never change lessons or consider improvements. Zoey's example was with respect to delivering a stellar lesson. Without a growth mindset, a person might not ever change the lesson but rather think it is the best lesson. In reality, you need to continue to challenge yourself to be better and to keep growing as a professional. A person can have strong skills as a coach or teacher, however,

without a growing mindset, things will pass by that person because of a lack of willingness to grow. Zoey believes you need a combination of growth mindset and good instruction as growth mindset gives you that reflection piece of questioning what can be done to make instruction even better and how a person can “grow” their practice. Zoey believes the combination of growth mindsets and good instruction are best accomplished at Achieve by learning together, working side by side, and building trust to enable teachers to take professional risks to continue to improve.

Angela, Math coach at Achieve, expressed appreciation for her colleagues and reflected on people embracing growth mindset philosophy throughout the school. Angela’s personal opinion is that those who have a growth mindset embrace new practices more than those who have fixed mindsets about themselves. Those with fixed mindsets may have the perspective that if they need to change, it means they are not a good teacher. Angela does not think any teacher would admit to having a fixed mindset about their students as they may believe they are not supposed to. Despite the perspective about students, some teachers may have fixed mindsets about themselves, about their own learning, and their own efficacy. As a result, they may not be as willing to be vulnerable or admit weaknesses to colleagues. That is when a person’s mindset can get in the way, however, Angela, Zoey, and Nate continue to effect the mindsets of these staff by ensuring the opportunities to collaborate and to see changes in practice of peers and colleagues, to push for change but incrementally and developmentally for those staff members who have more fixed mindsets. Overall, Angela believes that those with fixed mindsets were a miniscule number of staff; that almost everyone in the building was growth mindset oriented.

According to Angela, they have been developing growth mindsets by engaging staff in professional learning related to goal setting and to growth mindsets specifically, including

mindset stances, through book studies, internal learning opportunities, and providing opportunities for staff to go to outside conferences. Staff then come together and share their learning and develop plans to implement their new learning. Angela also described working on mindsets through increasing content knowledge. She believed that when you know the content more deeply, have that deeper understanding, you are likely to be more willing to take a risk in your classroom. In this regard, Angela found the outside professional development sessions to be helpful, particularly regarding new learning in math instruction. Deeper content knowledge helps with shifting fixed mindsets to growth. Using math as an example, Angela described that sometimes there is a fixed mindset that there is one way to do math, however, the staff are learning there are multiple ways and that it is okay to do things differently.

Although professional development can get at mindset change to a degree, Angela also reflected, “That it is hard because it needs to come from within. It is hard to make that change happen in someone.” Angela hopes that she will have an impact by supporting her colleagues in taking risks and helping them to feel like it is okay not to know everything. By providing that support, she hopes that over time, those mindsets will shift. Angela believes the teachers have a definite influence on each other as well. There is a lot of collaboration that occurs at Achieve. Angela sees the collaboration and the professional development as the drivers to the mindset changes. In comparison to other principals she has known, Angela appreciated Mr. Somers’ leadership approach. She recognized that Nate’s leadership emphasized teachers learning from one another and enabled the teachers to engage in professional development and collaborative opportunities.

With respect to her own reflection growth mindset development, Angela recalled that she used to think that she needed to work with students individually or in small groups to narrow

those gaps in mathematical understanding. Now, she is able to see how the gaps can be narrowed within the whole group, large classroom setting. Angela is able to work collaboratively with her colleagues, share her insights, and learn together. She is able to do so directly as a result of the priority Mr. Somers has made of collaboration time and the priority of resources he devoted to collaboration and modeling.

Renewed and Deepened commitment to the vision

Tanya Woodworth, Principal, Persistence reflected on this question and responded with intensity. She described that she used to believe they were doing what they should *and* all that they could do. Now, Tanya struggles to understand why others around her are not “getting onboard” as everyone could be following the model they have at Persistence. Tanya questioned why there are still schools in her district where only 10 percent of their students are proficient, yet they are not following the model her school provides. “Ten percent can read, and you’re okay with that? You can go home and sleep at night? There is a problem.” Tanya is very passionate in her convictions and expressed frustration with other district schools’ perceptions of the success they have had at Persistence. Tanya and the staff at Persistence have frequent guests visiting from all over the world including Argentina, China, and Australia who have all visited twice. They also share their story all over the country, for example, she has gone to New Hampshire and they did a return visit to Persistence and they have been featured as a 21st Century Learning School. Tanya has used these experiences to reinforce with her staff the value of their work and commitment to their vision.

When others visit, Tanya hopes that they take away the idea that there are many possibilities to consider. She advises others to just take away one thing and not to try to get start

everything at once. It has taken eight years for her and the staff at Persistence to reach the level that they are at. Tanya encourages those who visit to start with relationships and to use those relationship as the path to transforming their schools. Many of the veteran staff including Tanya, were uncertain in the beginning, however, they were willing to take the risk and try a new path. Tanya reflected on the words a veteran staff member recently shared with her. The teacher explained to Tanya that she used to view her work as just a job; she now views her work as a career. She attributed the shift in mindset to realizing that she can make a difference with every single student. Tanya stated, “It almost brings you to tears.”

Despite some frustrations, Tanya continues to see possibilities for the teachers and learners in her school. While other schools in the district may become academies of choice, she would like to expand the grade levels at Persistence. Tanya envisions a small, K-8, Next Generation school in which they can continue to focus on students’ ability to communicate, collaborate, problem solve, and advocate for themselves. She believes the students could then survive anywhere, no matter which high school they attended. Tanya believes the teachers in schools who receive students from Persistence will have to adapt and change as Persistence students are not likely to engage in lecture based and passive learning scenarios. The students will force people to change as they moving up in the system, which Tanya believes is a good thing. Tanya clearly expresses her commitment and passion for the work and believes deeply in it. Her commitment and expectations are made clear to the educators in the building.

In reflecting on the concepts of growth mindsets and good teaching, Noelle James, Administrator at the Innovation Academy, immediately took issue with the terminology of good teaching. She explained that teaching is not the issue, rather it is the learning. Noelle went on to share that in her view, growth mindset is a disposition that defines who you are and shapes your

outlook and views. Noelle further explained that if you have a fixed mindset and enter a culture that is very growth oriented and very focused on the students, you will find yourself feeling very incongruent with that culture. As a result of the incongruence with the culture being experienced and acclimated to as a professional, your mindset can change from that fixed orientation. The experiences within the culture can shape and begin to define who you are. Noelle believed that a person can absolutely change their mindsets and disposition through the leadership and development of a growth mindset culture.

Noelle tries to create an environment at Innovation that provides the environment and culture to support growth mindsets among the staff. She has hired individuals she knew from prior experiences who had philosophies that matched her desired mindsets and perspectives. Noelle also interviews and discusses mindsets in the process of hiring educators. When an educator's attitude shifts in a negative direction, Noelle has developed a culture that will encourage the person and help them get back "on the right track."

Similar to Tanya, Noelle's reflection on growth mindsets and diverse populations reflected her resolve and commitment to the vision she has established and for her overarching belief in a learner centric system and building a culture to support the system. Noelle explained that previously, she believed that achievement disparities were something that could be addressed through systematic intervention. She described a time when she had been focused on data driven instruction and the practice of grouping and regrouping students. Now, Noelle believes everything is "about the learners' involvement and engagement and understanding how to move them along in a growth mindset."

Noelle went on to describe a time in her previous district, when she and the staff held collaborative discussions, sorted student work, and flexibly grouped students together who were believed to be alike. At that time, Noelle subscribed to the idea that if they catered instruction to the needs of small groups of kids, they would succeed in making appropriate achievement gains. While Noelle continues to believe there is some merit in those practices, she recognizes that they were missing the point of view of the learner. Currently, Noelle recognizes the critical nature of the learner's willingness to be a participant, the learner's understanding of the direction they want to go. In her view, until the learner is committed to being a part of the learning process, the achievement gaps will continue. She described the process as akin to continuing to "throw Band-Aid after Band-Aid" on the achievement gaps and not making gain on them without the necessary learner involvement in the process. Noelle explained that both growth mindset and good teaching are important and necessary. According to Noelle, your mindset plays an important role in your interactions with learners every single day and with your belief in your own efficacy.

Krista Paulson, Director at Innovation, also indicated a strengthened resolve to the school's vision and collaborative processes. Krista explained that she used to believe academic achievement was the most important piece of the educational program. Now, she believes that learning and growth in all four dimensions of academic, employability, citizenship, and wellness, are equally important, especially in relation to life and future success. Krista reflected that the staff at Innovation 'owns' everything that they do. All of the decision making goes through so many levels of design, that anything that is created is staff owned. Krista initiates the work with that first layer of people after Noelle sets the vision. The first layer of staff then does the work with the next group such that as they go through the five levels, each group working with and

communicating with the next group. Krista describes her role as ensuring that the message or strategy is being transferred and applied, with intentionality, to the vision. By the time the idea or activity is prepared to be implemented, through responsive teaching and learning, Krista explained that everyone understands and can talk deeply about the practice, strategy, or message. This design process that Noelle and Krista have developed builds relationships and a growth culture among staff and sets the conditions for collaboration and empowering staff through collective efficacy.

David Scott, Learning Specialist at Innovation Academy, reflected often on his experiences in business prior to coming into education and made comparisons between the processes and environments he had been in. His views on leadership, shaped by his prior experiences in education, were not entirely favorable. However, these views have shifted since working at Innovation. He believes his philosophy is aligned with the leadership at Innovation and that he is now surrounded by others who are similar in philosophy. David expressed his appreciation for the collaboration and learning that all members of the team engage in, not only through their meetings and the design process, but also for the supportive culture when someone is struggling or has a particular challenge. David believes they are stronger for their support of one another and that all of them can learn from each other. He finds himself in a place of appreciation and respect for Noelle and for Krista that is a change for him. He is also firmly rooted in the vision of the Academy and the work they are doing.

David described his previous belief that leadership in education was completely ineffective. He reflected on his current belief that it is so powerful and important to have the right leadership and the right diversity in team membership. David expanded on this reflection with thoughts on the argument of whether education should run more like business and found

some agreement with regard to collaboration. In business, David's experience had been one in which there was a mindset of working together as a team and of empowering people. Until he came to Innovation, David did not believe that existed in education. David reflected on some of the politics and the hierarchical structures in his educational experiences and believed those structures to "crush" innovation whereas at the Innovation Academy, they were encouraged to be innovative. His business comparison continued with an analogy about making customers happy and how that compares to focusing on individual students, their needs and successes, and what staff need to do to ensure that success. David not only appreciates the culture of collaboration and the adherence to the vision that the leadership provides, he also appreciates the encouragement of innovation.

The reflections of and corresponding reappraisals of growth mindset from the study participants aligned with the primary themes and sub themes of the study. Many of the participants, for example, expounded on how the principal's focus on the vision, priority on collaboration, modeling, risk-taking, and growth oriented language, and shared how these factors influenced their mindsets and resulted in changes in their classrooms. Some participants described the changes in their own mindsets and philosophy and how that developed through professional development and collaborative work. Still others, the leaders in particular, described a strengthened resolve not only to their visions, but also to growth mindsets as a necessary component to the growth and development of the teaching staff and the students.

Summary

In each case, the leaderships' vision and direction toward a personalized learning framework appeared to facilitate changes in staff attitude toward a growth mindset orientation

and away from a deficit model, diminishing the use of deficit language and shifting the mindsets that correlated with that language. The direction toward personalization occurred prior to the specific work on growth mindsets and has as a component, an increase in learner agency, which is at the base of growth mindset. The notoriety the schools achieved related to their unique learner centric models served to reinforce the direction the leadership was encouraging staff to take. While these factors were present in each of the cases, they did not appear to be mutually exclusive; however, these factors did appear to facilitate the shifts in thinking. An expectation for growth and for growth mindsets among staff for students was a definitive component for each of the schools.

Consistently, throughout the interviews, teachers attributed much of their learning and changes in mindsets to engaging collaboratively with their colleagues in learning and trialing practices and sharing those experiences with each other. The unity of the staff in terms of willingness to help out each other, colleague to colleague, or to help someone get to the next level was distinctly present across each of the cases. Teachers noted that they felt comfortable seeking support from each other when they were challenged, and sharing their successes and failures with colleagues. The educators attributed their comfort level to, and appreciated the principal for, having developed a culture that has encouraged them to work and learn together. As the adults experience new learning, whether from professional development opportunities or collaborative practices, they then model that new practice or learning for, and provide the experience to the students. The openness to continuous learning about and for their learners, and their willingness to risk exposure of their own vulnerabilities in the process, was consistent across schools and positions and reflected the mindsets the principals were attempting to cultivate.

In addition to working side by side with coaches and peers, seeing students use growth mindset terminology both for their own benefit, or to support their peers, was a powerful reinforcement for teachers and served to validate their work and beliefs in growth mindsets. Seeing students demonstrate persistence with their own learning, trying different approaches and strategies to learning, using growth oriented language, and encouraging their peers when struggling, was motivating for teachers to continue to model and teach the concepts related to growth mindsets and solidified the importance of continuing to develop their own mindsets. The cyclical process of modeling, trialing new learning, adjusting and learning from mistakes, and sharing learning, was seen as developing leadership in all of the learners, both the adults and the students. The public success and notoriety in each of the schools also contributed to the culture of taking risks, trying new things, experiencing failure, learning from their experiences, and modeling these characteristics and behaviors for their students. The principals and administrative leadership were seen as directly responsible for creating the direction, conditions, and environments, for these practices and processes to exist and perpetuate.

It appears critical for the philosophy of the leadership to match the vision and the staff direction. Each of the leaders in the cases were clear in their mindsets and visions for student learning. Each was willing to take a risk in their professional work and thus demonstrated their willingness to be vulnerable and to grow from that position. Each modeled for their staff their mindset and expectations and laid the foundation for the teachers to do the same.

Chapter 5

Discussion

I begin this chapter by reviewing the context of how this study on how school leaders support the development of growth mindsets in teaching staff to benefit diverse students is situated in the literature. I then discuss the findings of my research and describe how the study contributes to the current research on school leadership. Next, I discuss implications for further research and finally, I present practical implications.

Research Context

This study contributes to the larger body of research on educational leadership. As I discussed in Chapters 1 and 2, researchers have indicated that mindsets of educators may be influenced by social conditioning such as stereotypes and deficit ideology (Aronson, 2004; Aronson, Fried & Good, 2002; Bal, Sullivan, & Harper, 2013; Dweck, 2012) and that educator mindsets influence pedagogical practices related to expectations, feedback, and language impacting learners of varying demographic categories differently (Artiles & Clark, 2000; Artiles, Klingner, Kozleski, Harry, Zion, Tate, Duran, & Riley, 2005; Ferguson, Rowley, & Friedlander, 2015). Additionally, educators who operate from growth mindsets tend to consider context variables more than traits (Hong, 1994; Levy & Dweck, 1999; Molden, Plaks, & Dweck, 2006). Those who operate from fixed mindsets are more likely to apply trait-based judgments leading to limitations on learning, lower expectations, and decreased learner efficacy (Dweck, 2012, Molden, Plaks, & Dweck, 2006).

Researchers established links between growth mindset and teacher efficacy (Seibert,

2006; Stroscher, 2003; Huebner, 2009; Ferguson, 2004). The link between teacher efficacy and teacher expectations of student learning abilities indicated teachers with a high sense of efficacy were more likely to view students with lower achievement levels and from different demographic groups as reachable and worth their time (Ashton & Webb, 1986; Huebner, 2009). Greater teacher self-efficacy leads to increased teaching quality and greater accountability for student learning (Goddard, 2002; Ham, Duyar, & Gumus, 2015; Rockoff, 2004; Ross & Gray, 2006). Teacher efficacy has been linked to collective efficacy and associated with collaborative cultures and shared decision making between principals and teachers (Ross, Cousins, Gadalla, & Hannay, 1999).

Although much research was reviewed suggesting connections between teacher mindsets and student performance and achievement, and teacher efficacy and student achievement, relatively few studies were found specifically addressing school leaders' influence on changing teacher mindsets or developing growth mindsets among educators. Previous research considering the effects of principals on changing teacher mindsets identifies practices such as maintaining a primary focus on student success, an emphasis on feedback, and the development of collaborative systems to empower teachers in decision-making (Teal, 2010). Teal's work identified gaps in the research with respect to leaders affecting change in teacher mindsets. This gap was further highlighted in my review of the literature in Chapter 2 and demonstrated the need for my study, to identify how school leaders support the development of growth mindsets in teachers.

The literature review provides context to the need for growth mindsets in teachers given the high impact of teachers on the learners in their classrooms. While there is a noteworthy body of literature on the impacts of growth mindset interventions on students and extensive literature

on the impact of teacher expectations on student performance, there is limited research addressing what principals or school leaders do to effectively influence teacher expectations and mindsets. To address this gap in the mindset and school leadership literatures, I collected and analyzed interview, observation, and document data to better understand how leaders develop growth mindsets in their teachers. I sorted the data and determined three overarching themes that summarized practices that leaders engaged in: 1) the development of a vision that included growth mindset and a culture that promoted adherence to the vision through personal conviction, as well as processes that supported that commitment, 2) the development of a culture of collaboration, that included modeling, risk taking, professional development, and development of leadership skills among the staff, and 3) an emphasis on shifting the language used among teachers and with students away from a deficit orientation and toward individual learner growth.

Connecting the findings to the research

Principals and leaders created an adherence to the vision by embedding the vision into all initiatives and building work. Leaders expressed clear expectations that teacher practices were aligned with the vision and communicated the expectation that all were working toward the vision. The vocabulary and language were repeated, became the mantra of the building, and were ingrained in the culture. This included growth mindset language and philosophy. The principals each espoused a growth mindset themselves and expressed a deep conviction and commitment to student focused learning, individual growth and agency, high expectations, and avoidance of labels. This conviction was aligned with all of the processes in the building, including the procedures for problem solving student academic and behavioral concerns, hiring, and addressing individual educators who were not in alignment with the vision or with the growth mindset culture. These findings were consistent with the research identifying principals as

critical in developing the physical and cultural structures for teachers to work together, to support academic press, to provide resource support, to encourage high performance, and to provide vision, inspiration, and intellectual stimulation (Minckler, 2014).

Collective Efficacy and Distributed Leadership

The principals and administrator in each of the schools established the conditions to develop a culture that encouraged and enabled relationship building, collaboration, and risk-taking, among the teachers to improve practices and to develop leadership skills. These leaders also focused the language of learning and achievement on learner agency and individualized learning, reducing the language of deficit ideology. These leaders' practices aligned with the research related to developing teacher self-efficacy, collective efficacy, the impact of the principal on collective efficacy, and distributed leadership. As reported in chapter 2, key leadership practices affecting teacher efficacy included practices that provided for shared power, increased trust and risk-taking, building a sense of community, development of teacher leadership, and developing peer relationships among adults (Angelle & Teague, 2014; Ross, et al. 1999; Walstrom & Louis, 2008). My study supports this research, as the principals/administrator impacted teacher self and collective efficacy by creating the conditions and structures that allowed teachers to develop their leadership, collaborate and learn from one another, and take risks professionally with their colleagues.

Teacher efficacy

While working with high percentages of students from traditionally marginalized groups, along racial, economic, or disability lines, the schools in my study boasted increased achievement scores across groups. The teachers, coaches, and principals attributed the gains to

the collaborative work they were doing related to personalized learning, developing learner agency, high expectations, and a shift from deficit ideology and language. These practices were enabled by the principals as they encouraged and supported the teachers and set the conditions to support this work. The changes in classroom practices were consistent with the research related to collective efficacy as indicated above. Additionally, classroom practices were consistent with the research relevant to growth mindsets and instructional practices, teacher mindsets and the impacts on various learners, and teacher self-efficacy (Yeager, et al., 2011). Teacher efficacy appeared to be supported by a sense of personal accomplishment, positive and realistic expectations for student behavior and achievement, personal responsibility for student learning, strategies for achieving objectives, planning for learning through purposeful, aligning of activities with goal-setting and identified strategies, positive affect (about teaching as a profession, self, and students), a sense of control, a sense of common teacher-student goals, and democratic decision making (Hawkins, 2009; Yeager, et al., 2013).

Teachers at each of the schools identified with the efficacy studies and personal responsibility as they reported on the reinforcing nature of observing students using growth mindset terminology, supporting each other with learning, learning from mistakes and stretching their brains. Teachers also saw the impact of their work through the increased achievement scores of their students, their attitudes toward learning, and their agency as students. Teachers seemed to recognize the limits of their control and worked to address the issues within that realm of control to encourage student learning. Principals/administrators affirmed and reinforced the teachers by pointing out successes to the teachers themselves, as well as to internal and external audiences, encouraging them to acknowledge and record their successes as a form of monitoring progress and self-affirmations which are then available especially during challenging times, and

supporting them to model and lead colleagues to not only increase their personal efficacy but also impact their collective efficacy. Principals and administrators were also aware of the issues within their control and took on the responsibility of ensuring teachers were focused on those issues. School leaders supported teachers in addressing the limitations through resources and structures such as before school programs, bussing, and developing schedules that support the teachers. Principals recognized teacher efficacy by elevating their work with credible praise and recognition as well as by providing them with opportunities to learn with and from each other, by “honoring” them with respect, and by taking on duties such as recess coverage so that teachers could spend more time on planning and strategic teaching and learning activities. These principal and administrative actions reflected the respect for the teachers and their work and contributed to maintaining the teachers’ positive affect toward the profession and their daily work.

An important element for success identified by Hawkins (2009) was that of giving teachers permission to fail and to take risks, to understand and be comfortable with the nonlinear process of adaptation and change. This element appeared consistently in the cultures that the principals/administrators had developed. Many educators reported taking risks professionally by letting others observe them, by being vulnerable to peer, coach, and administrator criticisms and comments, and by sharing and implementing new learning and strategies with others. Principals were able to capitalize on teachers’ sense of efficacy and accomplishments by the recognitions that each of the schools experienced. This notoriety came from published books, national recognitions, and frequent visitors to the classrooms and buildings, and from the design process and determination to become a model school for others. The principals and administrator reinforced the accomplishments of the staff and built upon those accomplishments to bolster leadership among the staff and to continue to encourage their collaborative work.

Professional development

In each of the schools, the teachers and principals reflected on professional development as one method of influencing teachers to develop growth mindsets. Professional development was influential with respect to learning and examining themselves, assessing their own mindsets, influencing one another through collaborative work and developing their collective sense of efficacy, and leading each other as colleagues to learn and improve their practices. Professional development occurred within and outside of the building with teachers encouraged to lead their colleagues in learning as well as to bring back information from district level professional development or outside sources. The most effective professional development regarding growth mindsets involved self-assessment and self-awareness of individual mindsets over professional development aimed at the teaching of growth mindset stances to students without the perspective self-reflection. The principals encouraged the continual growth of the teachers through professional development opportunities. The growth and development of individual teachers then became opportunities for collaboration and leadership in both large group structures and often more effectively, in professional learning community structures. The principal's role in promoting and providing relevant professional development is consistent with the research findings in the literature (Angelle & Teague, 2014) as it relates to building collective efficacy and to teacher expectations (Alvidrez & Weinstein, 1999).

Teacher leadership

The principals and coaches at the three schools in my study all encouraged leadership development within the staff. Leadership was encouraged through the design process as well as through professional development, collaboration, and presentations and modeling to various

audiences. School leaders saw value in developing the leadership among staff as decreasing the resistance that can come from “top-down” initiatives and directives. School leaders also recognized that given the proximity and direct connection to classroom practices, other teachers were seen as credible sources of information and support to one another. By leading, shaping, and sharing their expertise with their colleagues, teachers increased their feelings of efficacy and increased their own growth mindsets. School leaders were able to support and influence teacher practices and mindsets by providing teachers a voice and by developing their leadership skills. Instructional coaches served as liaisons, supporting the direction and goals of the leaders, while also serving as a support system to the teachers. The coaches aided in teacher leadership as they encouraged them to share their learning and practices with colleagues. Principals and coaches commended exemplary practices and evidence of growth mindsets and touted the teachers as models within and outside of the building, providing recognition and further impetus to lead and share with others. Coaches maintained credibility in part by emphasizing that they were learning alongside the teachers to continue to improve their own practices rather than judging or directing the teachers. Coaches built trust with teachers by learning side by side. Working alongside the teachers also allowed the coaches to observe and to continually encourage examination and growth of their mindsets and practices. Resources to support coaches were a priority for the schools in my study.

Encouraging teacher leadership to strengthen and enable other teachers to improve their practices was confirmed in the literature as supportive of developing growth mindsets. Teacher leadership, as the practice of individually or collectively influencing their colleagues, principals and others to improve teaching and learning may mirror patterns of self-efficacy and growth mindset (Your-Barr & Duke, 2004; Hunzicker, 2013). The factors identified in developing

teacher leadership according to Hunzicker (2013) included exposure to research based practices, increase teacher self-efficacy, and serving beyond the classroom. Gradual accumulation of professional experiences, job embedded collaboration and professional development led teachers toward increased leadership roles related to student-focused concerns. As they pursued leadership opportunities, self-efficacy increased. The ability to adjust feelings, thoughts and behaviors in the face of challenges strengthened relationships, built on self-efficacy, and on a willingness to persevere (Hunzicker, 2013). Principals affect teacher collective efficacy by creating structures for shared decision making, addressing problems within their control, creating environments to increase trust and risk-taking, and which build a sense of community and efficacy, and developing teacher leadership (Angelle & Teague, 2014; Walstrom & Louis, 2008). Building and monitoring a positive academic climate focusing on high student/teacher morale and academic press were supported in the literature (Urlick & Bowers, 2014) and by the results of my study. The leaders in each of the schools demonstrated these practices as reported by the teachers, coaches, and the principals themselves.

Contradictions and Inconsistencies with the literature

Reflections of some teachers on their mindsets for students with disabilities revealed interesting and somewhat surprising results. Although the teachers who participated in the study all subscribed to having growth mindsets, some teachers expressed concern that students with disabilities might challenge the growth mindsets and practices teachers have thus far developed. The elementary schools both described students with disabilities in their buildings as mildly disabled. Behavior issues were generally absent or were minor, often able to be handled within the classroom even when students had a disability identification. The principal and coach at Persistence increased interventions, both academic and behavioral, delivered within the

classroom in favor of removing students to receive interventions outside of the room and separate from peers. The leadership, both principal and coach, shared intense personal perspectives on labeling and the relevance of growth mindsets. The leadership also encouraged and discussed the next steps in the teaming structures, with respect to physical location and additional resources, in an effort to include the special educator to have more collaboration time and be a more consistent team member. In this way, the leadership was supporting the teachers to increase inclusionary practices for students with disabilities and encouraging growth mindsets of teachers for students with disabilities. Although the encouragement and supportive practices appeared the same for teachers as they worked with students with disabilities as with other categories of students, at the time of the interviews, the special educator had not yet joined the teaming structures and become fully engaged with the co-planning and co-serving models that were happening for non-disabled students. The special educator was encouraged to visit other schools and models and learn from others with respect to how the model could work as effectively for students with disabilities as for other demographic groups. On return to Persistence, I learned that the principal had increased the allocation for special education teaching staff which allowed the special education teachers to divide the caseload to better match the team constructs. This allowed the leaders and teachers to create the team structures, schedules, and collaboration time for the special educator to be as equally involved as other teachers in the team dynamics, in both planning and serving students. The principal and coach expectations were for movement toward the school's vision. Given additional resources, the special educator was able to take a larger step toward implementing the vision for students with disabilities as with other students.

At Achieve, principals and teachers alike, described inclusive practices for students with

disabilities. Over time, the needs of students with disabilities are anticipated to change, whether through addition of grade levels such as 4 year old kindergarten or through changes in placements related to attendance at neighborhood schools. Although educators, both leaders and teachers, felt the students were actively engaged and learning with their peers in general education environments, some concern was expressed for the teachers to maintain their growth mindsets as their student populations changed, particularly with respect to students who had been identified with disabilities who had more significant challenges cognitively, physically, or behaviorally, or for students with labels that had traditionally been removed to attend separate schools in the district.

Although their efforts to encourage growth mindsets of their teachers appeared effective overall regarding racial, ethnic, low socio-economic groups, and students with mild disabilities, the pace for changing and maintaining growth mindsets of teachers for students with disabilities appeared to be occurring at a slower rate than for other demographic categories. The rate of change of teacher practices for students with disabilities may suggest mindsets that are less growth oriented than for other student demographic groups. Teacher mindsets for students with disabilities may present an inconsistency in the schools studied as well as in the literature reviewed.

The research reviewed in Chapter 2 was inconsistent with respect to whether teachers' mindsets are affected by the disability status of the students. In a study considering teacher mindsets regarding students with disabilities, Gutshall (2013) found that 70 percent of teachers reported growth mindsets, and 29 percent reported as fixed mindset according to mindset survey responses. Further, Gutshall reported that mindsets were generally sturdy constructs, not influenced by situational variables, and not particularly impacted by either gender or disability

status. This finding was in contrast to the analysis by Osterholm, Nash, and Kirtsonis, (2007) which found that that teachers' perceptions, expectations, and behaviors were negatively influenced by labels, with some labels in particular seen as reflecting stable and child specific characteristics consistent with fixed mindsets and deficit ideologies (Clark & Artiles, 2000). Gutshall's findings that classroom teachers' mindsets were not impacted by learning disability status or gender appear somewhat in contrast to the concerns expressed for receiving students with disabilities seen as more challenging and for the pace of shifting mindsets for teachers of students with disabilities in general education or special education settings. This presents a concern as research has indicated teacher expectancy effects are stronger for stigmatized groups (Hauser-Cram, et. al., 2003) thus students with disabilities may receive lower expectations and be the most highly affected by teacher expectations.

The challenge of addressing teacher mindsets for students with disabilities at the elementary schools was not seen at the Innovation Academy as the Academy had a significantly high proportion of students with disabilities. The school was highly populated by residents of the residential facility who had experienced a variety of significant challenges that resulted in their placements outside of the home. The staff at Innovation accepted that all students that came to them had individual, and often significant, challenges. A disability might be a part of that learner's history, however, it was not a significant focus for the staff as they developed a learning plan (urgency story) which addressed the most significant needs first. A disability label did not alter their plans at Innovation and did not challenge the philosophy to any greater degree than those who were not identified with a disability.

For the elementary schools, however, the prospect of having more students with more significant disabilities was anticipated to challenge their inclusive beliefs and practices. Given

the Academy was the only school with a high percentage of students with disabilities, perhaps there is a threshold for which the population becomes the norm rather than presenting as outliers or subgroups. At the elementary schools, low SES, racial, and ethnic demographics were larger populations than were students with disabilities. While the staff and leadership attempted to mitigate some of the low SES issues, they were largely able to maintain high expectations for the students. For the elementary schools, the demographic groups did not make a discernible difference in expectations for student growth. Perhaps the population thresholds could have the effect of normalizing a group and thus easing the tensions that may exist between expectations and mindsets for particular categories. It may be that the efforts of the school leaders need to be more targeted to specifically support growth mindsets of teachers for students in smaller demographic groups to ensure teacher understanding of all students and to maintain high expectations. More targeted efforts may be needed to combat the persistence of the deficit model in regard to students with individual education plans as well. Both the potential for a threshold for demographic categories and the pace of change for students with disabilities specifically, present potential inconsistencies with the research in terms of developing growth mindsets for teachers. This presents as an additional opportunity for study.

The school leaders and teachers expressed appreciation for the professional development they engaged in related to trauma informed practices, equity and culturally responsive practices, and growth mindsets. The professional development provided the teachers and leaders with information and strategies to think differently about learners and to hold high expectations for student learning regardless of demographic category. The literature reviewed in chapter 2 suggested support for growth mindsets and the positive impacts on students related to teacher expectations, goal setting, and learner agency and for specific mindset interventions. The

literature also suggested support for teachers' self- and collective efficacy and positive impacts on students, particularly with respect to students from low SES backgrounds. The deficit model of disability identification might provide particular challenges with respect to growth mindsets of educators. While the schools in my study were actively working on growth mindsets for all students, this demographic group might provide greater challenges and resistance to growth given the foundation in deficit identification. Leaders may need to be aware of and specifically address mindsets of teachers specifically for these groups of learners.

The challenge for principals is to encourage and support growth mindsets for educators related to students with disabilities. Greater emphasis and effort may be required to influence mindsets of teachers when it comes to students with a disability label. It appears that mindsets for this demographic group may be the most resistant to shifting. It may be the group for whom the deficit ideology is the most pervasive and least amenable to growth mindsets for teachers.

In reflecting on teacher mindsets, leaders, teachers, and coaches generally endorsed the value and need for teachers to have growth mindsets for themselves as practitioners, and for their students as learners. Some educators reflected on whether a growth mindset was a necessary component for a teacher, or if a teacher could be equally effective just teaching students about growth mindsets without attending to the teacher's mindset. The need for teachers to have growth mindsets or growth mindsets as a function of good teaching, posed an additional area of inconsistency and inquiry in my study. Most leaders and teachers believed their colleagues had adopted a growth mindsets philosophy and saw value in instilling a growth mindset culture to benefit students and staff. Although leaders and teachers did not always credit themselves for influencing their colleagues, the leadership, collaborative culture, and professional development were consistently noted influencers. While that was generally true, some staff members reflected

that even if leaders and colleagues were not able to make a shift in a teacher's mindset, that teacher could still teach mindset principles to their students. Similar to practices, strategies, and new learning on the impacts of trauma, some teachers expressed that you don't need to experience trauma to see that it is real and to recognize the value in changing practices to address students more effectively.

In considering the impact a teacher who has not necessarily personally endorsed a growth mindset and the effects of that teacher in the classroom, I referred back to the literature referenced in Chapter 2 regarding internal biases and the impact on teacher attitudes and expectations in the classroom. Without addressing the teacher mindset, students may be subject to continuation of implicit biases, stereotypes, and lowered expectations (Ferguson, 2003). The implicit biases developed along the social constructs of race, socioeconomic status, disability, and other demographic categories serve to develop negative mindsets and affect classroom practices (Smith, et. al, 2011; Tenenbaum & Ruck, 2007; van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010). This bias can begin and perpetuate a pattern that sets students up for long-term challenges, as Tanya noted, challenges that can be perpetuated for generations. Additionally, Larissa, reflected on and described the experiences of the staff in the building. She explained that the professional development the staff participated in related to growth mindsets was more helpful to the staff, than was merely learning how to teach growth mindset stances to the students. By completing strengths finders and implicit bias tests, teachers reflected on their own thinking. This self-reflection helped to propel the teachers forward on developing growth mindsets. The question was posed to some interview candidates specifically whether growth mindsets were just a feature of good teaching. Those respondents generally endorsed that both good instruction and growth mindsets of teachers were necessary for student learning.

Future challenges

Educator agency and teacher leadership

Professional development had generally been provided as choice to the teachers within the scope of the school initiatives. Teachers were able to choose book studies and conferences provided they furthered their practices and aligned with the vision. One educator described her concern with taking what had been an organic desire to improve and learn, and turning that desire into an “opportunity to learn.” The educator described that this “opportunity to learn” became less of an opportunity and more of an obligation. In her view, the learning was no longer based on an intrinsic desire to learn and grow but had acquired a negative influence to it. Just as the teachers described concern for their students moving into systems that no longer met the student needs after they developed agency, principals and school leaders may need to address this issue. Given the collaborative cultures and structures they have developed, principals and school leaders may need to consider sharing decision making responsibilities with respect to professional development. This might best be done through continued development of teachers as leaders.

As noted in my study, each of the schools’ leaders expressed a belief that all of the teachers had some leadership skills within them and the leaders encouraged and supported the development of that leadership. To offset the potential negative impacts of obligatory professional development and building on growth mindsets of teachers, principals may wish to consider including the teachers in the decision making. Cherkowski (2018) suggested developing teacher leadership skills as a method of reinforcing teacher mindsets. According to Cherkowski, (2018), teacher leaders have reported positive benefits such as gaining through seeing an

improvement in their own practice (Harris & Townsend, 2007), feeling a sense of professional growth (Hofstein, Carmeli & Shore, 2004), gaining new competencies, taking on more formal leadership roles within the school (Vernon-Dotson & Floyd, 2012), and developing personal agency for contributing to school improvement (Cherkowski & Schnellert, 2017). The benefits reported by Cherkowski mirror the positive influences the educators reported in my study related to the collaborative experiences and leadership opportunities they engaged in. Engaging educators in the decision making related to professional development and reinforcing their mindsets may have the additional benefit of encouraging periodic self-assessment and mindsets related to particular student groups, expectations, and practices.

Professional development related to growth mindsets was seen as helpful, particularly when it involved self-awareness. Principals may want to consider when self-assessments are needed for staff and booster sessions or additional professional development is needed. As mentioned earlier, the principals may need to consider additional professional development which includes a self-assessment component, when the student population is anticipated to change, for example, when additional students with disabilities are anticipated. A change in population provides an example of a minor challenge that principals may have to specifically address and reinforce in terms of teacher mindsets. Periodically revisiting and engaging in self-assessments may provide a best practice opportunity even for those who generally subscribe to a growth mindset, as all staff may benefit from considering their own mindsets and revisiting discussions related to growth mindsets. Revisiting mindsets periodically may be especially important to prevent reverting back to old stereotypes or deficit thinking as populations grow and change or plateaus in achievement are indicated. Some references to family situations, lack of parental engagement or encouragement of growth mindsets may suggest that although efforts to

reduce barriers were viewed as positives to allowing students to focus learning, underlying deficit perspectives could resurface if not attended to.

Maintaining growth mindset cultures

At Persistence, new staff members had been acculturated to the vision but had not had voice in developing it. Larissa, the coach, indicated that the building staff were at a place to look again at where they want to go and how to move forward, building off of design thinking. This process may prove to be a challenge at Persistence as they determine whether to remain focused on the next generation learning initiatives that had become a part of their core or whether they will shift their focus. This challenge for Persistence represents a broader challenge for all of the schools. The challenge is how to ensure that the philosophy and practices of developing growth mindsets is renewed or maintained over time regardless of shifts in vision or instructional frameworks. This challenge presents at Persistence currently, however, as school leaders and educators change within a building and the vision is revisited or initiatives are changed from a district level, school leaders will be challenged to maintain the cultures they have developed and the teacher mindsets they have influenced toward growth.

Implications for further research

Each of the schools that I studied was operating from personalized learning frameworks which appear antithetical to deficit orientations and fixed mindset thinking. These frameworks may have made educators more amenable to growth mindset learning since they had already undergone a transition from traditional school structures and thinking. Future studies may wish to consider how principals and school leaders develop growth mindsets of teachers in schools with more traditional frameworks. Future studies may also consider how to sustain their efforts

in absence of assistance from external recognitions, to insure that good practices are recognized and maintained by continuous improvement cycles and gains in student achievement.

In each of the schools, I met with individuals who held growth mindset philosophies, some even referencing growth mindsets as dispositions. As a result, I did not interview individuals who were not considered to have growth mindsets or who fell in a category of being more resistant to developing growth mindsets either for themselves or their students. Future studies should look specifically at more resistant educators to determine what, if anything, their school leaders were able to implement to influence their mindsets and if collaborative practices, professional development, and growth based language eventually resulted in shifts in mindsets as was suggested by the principals and leaders in this study.

In addition, schools involved in the study had varying levels of diversity. While the literature on growth mindsets appeared most prevalent for students with low socioeconomic status and students of varying racial or ethnic backgrounds, students with disabilities may be a demographic category that educators find more difficult to consider from a growth perspective. Educators may be less amenable to the concepts of stretching one's intelligence and increasing learner agency for this population of students. The increased resistance to shifts in mindsets about students with disability identifications may be related to the deficit model of identification that has been in place and the historical perspective of the stability of intelligence. Future studies can examine the influences on educators' growth mindsets specifically relating to students with identified special education needs. These studies could extend to an examination of teacher mindsets toward students receiving interventions in a multi-level system of support structure, whether educator mindsets are more amenable to growth mindsets if the interventions are delivered in the classroom vs. removed to a separate setting, and whether there is consistency in

educator mindsets and influences on them between students with identified disabilities and those receiving interventions.

Conclusion

As I reflect on the places I visited and the people I met in this process, I am filled with gratitude for the people who willingly gave of their time to share the work they feel so passionately about. I was impressed with the unique approaches toward personalized learning and individual growth that each of the schools took and how the leaders used those approaches to help shape the mindsets of their teaching staff. The leaders of each school spoke passionately about their work and were clear in their resolve to developing growth mindsets and not just talking at a surface level or putting up bulletin boards without deeper intent.

While I valued the time I spent with the leaders and teachers alike, I could not help but consider the experiences I have had professionally with fixed and growth mindsets and the places where growth mindset orientations are most prevalent in my current and past workplaces. Some specific insights from the interviews resonated with me that apply to prior experiences and may serve to assist other school leaders and myself as these insights apply to future scenarios. Noelle spoke about the nature of a growth mindset culture helping to shift the mindset of an individual who otherwise might be out of sync with colleagues in a learning community. The incongruence of their mindset may impel them to begin to conform to others. Noelle's insight was that the fixed mindset could be shifted as a result of the growth mindset culture that is experienced, or that is acclimated to as a professional. Attending to the development of a growth mindset culture then could help shape and define individuals within the organization.

In my experience, that cultural shift can shape and influence people in either direction,

either to a more fixed or a more growth oriented perspective. Absent an existing culture supporting growth mindsets or specific administrator actions encouraging growth mindsets, teachers who are new to a building's culture begin to conform to the culture and expectations of their colleagues. I have observed this conformity as related to mindsets about inclusive vs. segregated practices and mindsets about behavioral change. For example, in school districts I have worked in, we have hired teachers with inclusive mindsets and high expectations for students that put together with veteran teachers with less inclusive mindsets, quickly shift their schedules and practices to conform to the expertise and experience of those who had been there longer. This sort of regression toward the mean has also been seen with respect to attitudes, expectations, and tolerance of student behavioral norms. When cultures develop more punitive than instructional and growth expectations for students, teachers coming into the culture often shift toward the culture of their peers. Greater effort on the part of both the principal and other district administrators becomes necessary not only to encourage growth mindsets, but also to reassert an inclusive perspective that students can learn in the regular education environment and that behavior may need to be addressed as would other skills that are lagging, through instruction and practice. The power of the culture is evident in these situations and reminds us of how important it is to attend to ensuring the culture is supporting growth mindsets.

In the school district I currently work in, we have also had examples that reflect the positive impacts collaboration with growth mindset oriented educators can have on their colleagues. An example of positively affected mindsets involves a scenario in which middle school special education teachers and math coaches have been able to influence other special education colleagues in both higher and lower grade levels to reflect on their mindsets regarding math learning for students with disabilities. Given administrative support and the resource of

time, these growth mindset oriented educators have been able to shift their colleagues' thinking on student ability to learn math, regardless of disability label and level of skill.

Noelle's perspective speaks to the importance of attending to and developing a growth mindset culture. This is a necessary component as we bring new people into our systems as demonstrated in my first personal example. Providing professional development to understand one's self personally and professionally, and to understand individual students such as through the work on trauma and cultural awareness can be useful tools in encouraging growth mindsets of teachers such that they can maintain high expectations for each of their students regardless of circumstance. The second example I described, speaks to the development of structures and opportunities for collaboration, taking risks with one another, and learning from each other that are necessary for leaders to establish in order to promote growth mindsets among the teachers. This example is consistent with the culture of collaboration, modeling, risk taking and leadership that was identified in my study.

The participants' responses suggest there is a need for active and periodic assessment and emphasis on growth mindset philosophy to ensure attention continues to be given to maintaining high expectations and monitoring attitudes. Without active attention, philosophies can easily shift back to deficit thinking as we have often seen with students who present significant or different challenges with respect to behavior, learning, or perceived ability levels and labels. It may require direct attention to maintain growth and asset based language when confronted with disability labels that are grounded in fixed and deficit terminology and identifications. A strong culture of growth mindset appears to be needed to re-engage individuals when the challenges and frustrations build and affect perspectives. This need for active and periodic attention to educator mindsets was confirmed by the administrator and teachers at Innovation when a coach had

“gotten off track.” The team responded by providing support but also reminded the individual of the expectations and impacts of a fixed mindset on the learning of that individual student and the student body and culture as a whole. The need to revisit and reinforce growth mindsets for teachers was also indicated as a future concern by a teacher at Achieve. The changing characteristics of student populations have the potential of testing the staff resolve toward inclusive practices. The concern in these situations is for reverting back to more deficit oriented, fixed mindset thinking.

As one teacher explained regarding expectations and growth mindsets for students, “Sometimes we don’t give our kids enough credit for what they can do, if we expose them to the language and the ideas.” This statement really gets to the heart of the reason for this study and for encouraging growth mindsets among the teaching staff. Too often, we put limits on learning academically, socially, behaviorally, and vocationally. While these limits apply to learners of all demographic groups, lowering of expectations and fixed mindsets appears most robust for students with disabilities and is what I have observed most frequently in my position. In this study, I intended to look at the development of growth mindsets of teachers for all groups of learners. Unfortunately, I often see fixed mindsets and lower expectations for students with disabilities in particular, sometimes in actions that are subtle, sometimes less so. I see it in the excitement we have for students with disabilities getting vocational experiences, yet those experiences are more often than not, custodial; or in the steering of students away from a four year college and to a program that will ‘fit’ them better. I think we can expect more for our students, and the students can expect more from us. I see it in the removal of students from the classroom in favor of pull-out services because, “it’s above their heads” and will be a waste of the student’s time or we don’t want to see them struggle when we can teach at their level in a

separate setting. I see fixed mindsets in phrases such as “functional skills,” a phrase which often can be interpreted as the teacher is frustrated with a lack of progress and perhaps has given up on the student. It is a phrase or descriptor I would like to remove from teacher vocabulary and replace with a shift in mindset. In my experience as a school district leader, these issues are not just inclusion issues, they are teacher mindset issues. The district that I work in has a reputation for providing excellent special education services. My desire would be for the legacy of the district’s excellence to be based on a model of high expectations and outcomes for all students, including those with special education identifications.

I was able to learn from school leaders in schools that were not disproportionate in terms of the numbers of students with disabilities and from one that was majority students with disabilities. In the school that had a majority of students with disability identifications, the mindsets of the teachers were not troubled by disability identifications just as the mindsets of the teachers at Persistence and Achieve were not troubled by the low SES and racial identifications prevalent in their schools. In these schools, the expectations the leaders and teachers had for students were high, regardless of category. The press for high expectations seems required to stay at the forefront of school leaders priority agendas to avoid the regression to a deficit oriented norm. As Tanya so vehemently expressed, the decisions we make about our students can negatively or positively affect the lives of our students for generations.

I recently had the opportunity to hear a message from Dr. Gloria Ladson-Billings. Dr. Ladson-Billings spoke to our staff about setting a vision, operationalizing a plan, developing passion for the vision, and persisting in carrying out that plan. As a slide with the word persistence emerged, I held my breath knowing the recent criticisms on grit and persistence for students who often demonstrate great grit and resilience in the face of the everyday conditions of

their worlds. Dr. Ladson-Billings pointed those factors out, that students very often have grit and persistence, and stated that those who need to develop grit are teachers. According to Dr. Ladson-Billings, teachers need to develop grit, must be willing to persist and not give up on students. With these words, Dr. Ladson-Billings validated the reasons for my study and provided inspiration for me just as Doug Reeves had done for Tanya so many years ago.

As leaders, we need to make decisions that increase the expectations for student learning for all learners, whether from varied racial, ethnic, language, economic or ability backgrounds. We can do this by emphasizing that all students can learn and grow, by communicating high expectations in our language and actions, by developing cultures and providing structures to allow teachers to explore practices, make mistakes, learn from each other, and share their knowledge and skills. It was with intentionality that the school leaders I studied created those very conditions and to which the expectations by teachers for learners were formed. The schools that I worked with in the study were all able to keep the learner centric visions moving forward because of their continued efforts to ensure professional development and time for teachers to observe and learn with and from one another.

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Appendix A

Growth Mindset Assessment

Check all the statements with which you agree.

1. _____ There are just some things I will never be good at.
2. _____ When I make a mistake, I try to learn from it.
3. _____ When others do better than me, I feel threatened.
4. _____ I enjoy getting out of my comfort zone.
5. _____ When I show others I'm smart or talented, I feel successful.
6. _____ I feel inspired by the success of others.
7. _____ I feel good when I can do something others cannot.
8. _____ It's possible to change how intelligent you are.
9. _____ You shouldn't have to try to be smart---you just are or you aren't.
10. _____ I enjoy taking on a new challenge or task with which I am unfamiliar.

(In this assessment, the odd numbered statements, (1, 3, 5, 7, 9) indicate a fixed mindset, while the even numbered statements (2, 4, 6, 8, 10) illustrate a growth mindset. The goal of this checklist is to provide you with a starting point.

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Appendix B

Observation Protocol

Field Notes

Observation Protocol (Creswell, 2007)

Descriptive Notes	Reflective Notes
Mission/Vision	
Culture	
Communication	
Modeling	
Collaboration	

Structures: Resources/Hiring	
Model Schools/Pride	

Appendix C

Interview Protocol for Principals

The following questions will serve as the semi-structured interview format for the interview.

Questions:

1. Tell me what led you into your leadership role? What led you to this position in this school? What has shaped your leadership style?
2. What are your guiding philosophies and what do you value most with your staff? Please share some examples of how this is reflected in your building.
3. What are the key resources and strategies you use to influence your staff?
How do you communicate your priorities and expectations, and build a culture to support your school's mission, vision, and goals?
4. How do you communicate your expectations of achievement with your staff? How are your expectations for achievement communicated to your students? To parents?
5. In looking at your school's demographics, I noticed _____ (describe the demographics). Traditionally, there have been disparities in achievement for these students. Describe the achievement of these students in your school. In what ways are you addressing any disparities among these groups?
6. How have teachers responded to building and district initiatives aimed at positively influencing growth or improvement for students experiencing the disparities in achievement? How have the initiatives affected teacher practices?
7. How do your teachers view the disparities and the student groups that are represented? How do they view their influence or impact on student learning and in particular, on the learning of the students who are experiencing the disparities in achievement?

8. In what ways do you believe teacher expectations/mindsets or mind frames impact student achievement? Do you assess teacher views and mindsets and if so, how? How have you observed those views shaping their classroom practices, expectations, and work with the students?
9. How do you support teacher expectations and mindsets? In what ways do you influence them to positively affect change? Please share examples.
10. How does growth mindset work reflect your philosophy and the goals and priorities of the building? Is growth mindset work linked with other building priorities and initiatives, and to professional development? In what ways and with which areas? Why did you choose to encourage or focus on growth mindset work?
11. What results do you see from your (focused) work with staff on growth mindsets? What examples can you share that indicate your work has been effective in developing growth mindsets? What changes do you see in classroom practices? In student agency, if any.
12. What evidence do you have to support that the learner's experience has changed as a result of growth mindset practices/beliefs? What evidence can you share that indicates the mindset of teachers increases the capacity of the learner to drive his/her own learning/
13. Please share some specific examples of teachers who have embraced the initiatives and describe their responses and actions. Describe some specific tools, practices, and routines, that have helped foster growth oriented mindsets among the teachers.
14. How do you respond or influence teachers who disagree with your expectations and views on the achievement disparities, on their effectiveness in impacting student learning, and on their expectations of students for learning? Describe the resources you use to influence their instructional practices with the students.
15. Describe the proportion of teachers who have changed their instructional delivery/classroom practices to better ensure students from these groups are learning? What level of success have you had?
16. Describe the characteristics of the teachers who have embraced, as well as those who have been challenged, by the initiatives and expectations/effort to decrease disparities (including years of experience, veteran, new to the profession, etc.) Have these

characteristics led you to employ different strategies to ensure follow through or support these individuals?

17. Please provide examples of how teachers who view students with growth mindsets have shaped/influenced others. Please also share what influence over peers fixed mindset teachers have had (please provide specific examples).
18. If given the prompt, I used to think_____, now I think_____ relative to achievement disparities and mindsets, what would your response be?
19. Given this interview and any follow up interviews will be kept confidential, would you be willing to be contacted by this researcher for follow up interviews if needed?

For purposes of this interview, a brief definition of mindsets is as follows:

Mindsets are beliefs we have about ourselves. Growth mindsets reflect the view that intelligence is malleable vs. fixed or static. A growth mindset perspective includes that targeted effort will increase learning and growth, challenge is useful and part of, or an opportunity for learning, mistakes help us learn and failing doesn't reflect our worth, targeted feedback can help you grow and develop, thinking about thinking (metacognition) is important in learning, and persistence and the belief that one can overcome obstacles and challenges.

Appendix D

Interview Protocol for Teacher Leaders

The following questions will serve as the semi-structured interview format for the interview.

Questions:

1. A brief mindset survey will be conducted to assess the mindset of the instructional coach/teacher leader.
2. Reflect on your experiences with teachers, principals, coaches or mentors who have shaped you professionally.
3. How would you describe your approach to leading/coaching? What are your guiding philosophies? What do you value most in your leadership role?
4. How does your role as coach/teacher leader support the principal in carrying out the building initiatives? Describe how you have been able to influence the instructional staff.
5. How does your principal communicate priorities and build a culture to support your school mission, vision, and goals. How do you communicate that message to the staff you work with/your colleagues? Do your messages align with the principal's?
6. I noticed there are disparities in achievement in your school for students. In what ways are these disparities being addressed?
7. How have teachers responded to initiatives aimed at positively influencing growth or improvement of students' experiencing the disparities in achievement? How have the initiatives affected teacher practices and expectations for student learning?
8. Please share some specific examples of teachers who have embraced the initiatives and describe their responses and actions. Describe some specific tools, strategies, practices, and routines that have helped foster growth oriented mindsets among the teachers.
9. Describe ways that you respond to or influence teachers who disagree with your expectations and view on the achievement disparities.

10. Describe the proportion of teachers who have changed their instructional delivery/classroom practices to better ensure students from these groups are learning. What level of success have you had?
11. Describe the characteristics of the teachers who have embraced, as well as those who have been challenged, by the initiatives and expectations/effort to decrease disparities (including years of experience, etc.)
12. Please provide examples of how teachers who view all students with growth mindsets have shaped/influenced others. Please also share what influence over peers fixed mindset teachers have had.
13. How successful have you been in convincing fixed mindset teachers that these students can learn and achieve at higher levels?

Mindsets are beliefs we have about ourselves. Growth mindsets reflect the view that intelligence is malleable vs. fixed or static. A growth mindset perspective includes that targeted effort will increase learning and growth, challenge is useful and part of, or an opportunity for learning, mistakes help us learn and failing doesn't reflect our worth, targeted feedback can help you grow and develop, thinking about thinking (metacognition) is important in learning, and persistence and the belief that one can overcome obstacles and challenges.

Appendix E

Interview Protocol for Teachers

The following questions will serve as the semi-structured interview format for the interview.

Questions:

1. A brief mindset survey will be conducted to determine the mindset of the instructional teacher.
2. What led you to teaching? Describe your experience as a teacher. Reflect on your experiences with teachers, principals, coaches or mentors who have influenced you.
3. Describe your approach to teaching now. Describe your guiding philosophies provide the basis for your teaching? What do you value most in your classroom?
4. How does the principal support your work? How does the instructional coach/teacher support you?
5. How does your principal communicate priorities and build a culture to support your school mission, vision, and goals. How does that affect your work in the classroom? Do your practices align with the principal's?
6. The demographics of your school reflect disparities in achievement among.... How have you been challenged by these disparities and how do you address them in the classroom? Do you believe that you can influence the learning for these students? In what ways?
7. How successful has the building leadership been in increasing your and other teachers' desire to improve their competency levels to meet the needs of various learners?
8. How successful has the building leadership, both principal and instructional coaches, in persuading the instructional staff that students of various backgrounds and disabilities can learn and achieve at higher levels?

9. Have you experienced any success in changing your classroom practices (goal setting, increasing expectations, etc.) for these students? In other words, has changing your mindset thinking to a more growth oriented framework resulted in changing any classroom practices and if so, what changes have you seen in achievement? Describe these experiences. How consistent have the changes been?
10. What influence over your colleagues do you have with regard to addressing these issues? Have you been successful have you been in sharing your experiences/successes with colleagues who may have fixed mindsets that these students can learn and achieve at higher levels?
11. How do you communicate your expectations of achievement with the students? How do you communicate that to their parents?
12. Given this interview and any follow up interviews will be kept confidential, would you be willing to be contacted by this researcher for follow up interviews if needed?

Mindsets are beliefs we have about ourselves. Growth mindsets reflect the view that intelligence is malleable vs. fixed or static. A growth mindset perspective includes that targeted effort will increase learning and growth, challenge is useful and part of, or an opportunity for learning, mistakes help us learn and failing doesn't reflect our worth, targeted feedback can help you grow and develop, thinking about thinking (metacognition) is important in learning, and persistence and the belief that one can overcome obstacles and challenges.