12-13-2022

Increasing Collaboration to Improve Student Outcomes: Improvement Science

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Improvement Science

by

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A dissertation submitted in partial fulfillment of the
requirements for the degree of

Doctor of Education
in
Educational Leadership: Administration

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Portland State University
2022

Abstract

The aspiration of achieving equitable outcomes for all students is a focus of schools, districts, and communities but has largely remained unattainable with the top-down implementation of change ideas and directives that come and go as quickly as they are implemented. Too often the direct users, students and classroom staff, are left out of the conversations around what works best to improve student success, contributing to the achievement gaps experienced by our students of color, students receiving special education or English language services, or in the case of a hook discipline, young men.. By utilizing Improvement Science through collaboration across staff classifications, small changes can be made that scale to larger systems and lead to more equitable outcomes for our underserved students.

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Background of the Problem

In 2002, the *No Child Left Behind Act* (NCLB) updated the Elementary and Secondary Education Act scaling up the role at the federal level for holding schools accountable for student outcomes (Klein, 2015, para. 1). This federal law was intended to close the achievement gap among our most marginalized students, specifically our poor and minority students, to make the United States more internationally competitive. State accountability was measured through state testing in state content area grades 3 through 8 and for both reading and math in high school, testing the entire population and disaggregating outcomes by required subgroups, including English Language Learners, students receiving special education services, race, and students from low-income families. The law also included a requirement that all teachers are "highly qualified" in their subject area and teaching level. To be highly qualified, a teacher holds a state certification or has passed a state licensing exam, including any state-established alternative routes to certification, and holds a bachelor's degree. If states did not meet these new requirements, schools risked losing Title I money, limiting opportunities for non-instructional costs such as behavior supports, attendance programs, programs that support community or family involvement, or after school and summer programs for enrichment or recovering lost learning. A loss of these funds would potentially put schools further behind in their ability to support all students and improve all student outcomes.

In 2015, the *Every Student Succeeds Act* (ESSA) replaced NCLB, moving in a different direction, giving states more power, asking each to submit accountability plans, goals, and systems to improve student outcomes. States were still required to test students in reading and math in the same grades and break out the achievement data in the same ways as NCLB, but could also allow districts to utilize other nationally recognized tests like the ACT or SAT (Klein, 2016, para. 20). Another significant change from NCLB to ESSA was that ESSA no longer required the hiring of "highly qualified teachers" for classrooms.

Shifts in national educational policy have not necessarily led to improved outcomes, and there has not been agreement for how improvement measures can or should be taken. Peterson and Carlile (2019) insist, "how to best improve our educational system is the subject of intense national discussion with numerous legislative and philosophical strategies fueling the national debate" (p.167). Many educational reforms have come and gone, including systems such as the Gates foundation support of small schools or the implementation of Professional Learning Communities (PLC) by DuFour (2004). Carpenter and Peterson (2019) agree that

> Improving student outcomes in schools has proven elusive into many schools and districts in our nation, persistently leaving behind the most vulnerable students and families in our communities. Although many districts are using professional learning communities to bring teachers together to improve teaching practices through collaboration, additional strategies may improve the efficacy of PLCs (p.275).

Improvement Science is a growing resource and methodology utilized from pre-kindergarten systems through college level dissertation programs, recognizing the value Improvement Science has brought to other user-centered systems such as healthcare and the automotive industries. The use of Improvement Science in education is still very new, but there is a growing body of research and studies where educators and educational leaders have implemented Improvement Science to better understand their systems as it currently exists, make small scale changes, and through the Plan-Do-Study-Act cycle, scale up to larger scale changes towards improved outcomes (Bryk et al., 2015).

While the students in our school system continue to grow in diversity and needs, that same school system is not changing to meet the needs of our students. Many leaders have set out to make changes, but there is a lack of an "organized system to capture their learning, refine it, and transform it into a collective force accelerating wider-scale improvements" as would be needed to see systemic change (Bryk et al., 2015, p.3). What we continue to learn is there are other industries that are changing faster and better in ways to improve outcomes, increase revenue, and advance their work-- and we as educators can learn from them.

The health field is one field that has constantly had to grow and change with new technologies, medicine, and understanding of the human body (Bryk et al., 2015). It would be unethical for doctors and nurses to use the same techniques in all areas as they used in the early 1900's or even in the early 2000's. The improvements in health care are saving lives, and the research continues to work towards even better outcomes for patients.

So what can we learn from the healthcare field? The techniques used to improve in the health field can be applied in our educational systems as well; Improvement Science can help America's schools get better at getting better (Bryk et al., 2015). Improvement Science ensures all students achieve their full potential "by focusing on the specific tasks people do; the processes and tools they use; and how prevailing policies, organizational structures, and norms affect" the student outcomes seen across our cities, states, and country (Bryk et al, p.7). IS focuses on the two questions:

- What is the exact problem I am trying to solve?
- What change might I introduce and why?

Leaders can seek to better understand the system as it currently exists and intentionally choose changes that can start small and scale up to system-wide improvements (p.13). The first step in this work is to determine the exact problem you are trying to solve. As Thonstad (2019) noted, "in understanding a problem deeply, it is important to recognize that your system is set up to get exactly the results it is getting" (p.271). Applying Improvement Science tools and processes means identifying what is working well and what is not so that we can improve. It is also essential to understand that Improvement Science cannot be "done" by one leader in isolation, but rather in collaboration with all stakeholders to improve outcomes. For education, this means listening and including the voices of students; classified, licensed, and administrative staff; families; and our community. Opening up our current practices to the scrutiny of these various groups can feel intimidating, but thinking "deeply about the work requires great trust, and it allows all staff members the opportunity to engage and to support forward progress" (Thonstad, p.272).

Improvement Science processes allow for a strategic methodology of seeing the system, collecting and analyzing disaggregated data, including student, family, and faculty voice, monitoring progress, collaborating with colleagues and the community, and adopting, adapting, or abandoning the change idea so that the quality of the student's learning experience results in better student outcomes (Thonstad et al., 2019, p.282).

Improvement Science is not just about making the work problem-specific and user-centered, but rather consists of six improvement principles:

1. Make the work problem-specific and user-centered.
2. Focus on variation in performance.
3. See the system that produces the current outcomes.
4. We cannot improve at scale what we cannot measure.
5. Use disciplined inquiry to drive improvement.
6. Accelerate learning through networked communities (Bryk et al., 2015)

These six Improvement Science improvement principles are "a different way of thinking and acting in the interest of advancing improvement," rather than a model or series of steps to be taken in a specified order (Bryk, 2020, p.199). Perry et al. (2020) emphasize Improvement Science offers a valuable set of tools with distinct skills, knowledge, and habits that can support leaders in improving their systems and organizations. As such, there are many tools that support the work of improvement that can help align the resources and human capital within our school systems. Bryk acknowledges "these instruments are just tools to help us achieve an important aim. They are a means to an end, not the aims sought," (p. 198) but the tools are essential in

shifting our thinking to scaled improvement across an educational system that has remained constant in so many ways, pushing against change and continuing to produce disparate outcomes for students, specifically our males, students of color, students experiencing disability, and students experiencing socioeconomic insecurity.

If we are to improve our educational system, we must first look to the system itself, recognizing that "as school teachers and leaders, it is our responsibility to prohibit average from becoming our standard" (Casas, 2017, p.4). We must look to and plan for the next steps in providing exceptional service and exceptional learning opportunities for our students and our staff. Dweck (2007) identified such collective attitudes as"growth mindset and a sense of self-efficacy. In addition, leaders must consider what changes are needed for individuals as well as within the system. As Nieto (2000) stated, "To make a significant difference on a broad scale, individual efforts must be joined by collective institutional changes" (p.186). The concept of starting small and improving to scale in Improvement Science is based on the principle of making the work problem-specific and user-centered. Leaders have the responsibility of allowing school staff, students, and families to identify and implement possible change ideas that have been identified to lead towards improved outcomes for students. Bryk (2020) emphasizes that "by encouraging exploration and experimentation with continuous improvement processes simultaneously at all levels of the system, improvers also avoided programmatic isolation where the efforts might be taken up by some people by not others (p.170). In our educational system and in Improvement Science, collaboration is key to ensuring equitable outcomes for all students and by using the principles of Improvement Science,

we can make changes in disciplined ways and work towards desired outcomes that improve our system.

In addition, school employees who work together to learn and grow with a sense of urgency and responsibility improve the system they are working in and their service to students and families. Krechevksy et al. (2009) explain

> In *accountability to each other*, everyone in the school takes responsibility for contributing to one another's learning and growth, as well as their own. They also take responsibility for forming the school's identity as a *community that learns*" (p.67).

Teachers and support staff influence the characteristics of the learning community and the quality of a student's learning experience. They consider whether the learning environment is safe for them and for students, whether the colleague can be trusted and whether the environment promotes taking chances. They consider equity issues and what the available supports or barriers are to addressing equity issues in their particular community.

When working in a school, larger contextual issues must be examined when considering change initiatives. Contextual issues include current events happening nationally, locally, or at the school level. Acknowledging the school system's complexity and the type of change, in addition to the individuals that work within it creates challenges when replicating the leadership moves that will result in improved outcomes for all students, but most specifically our marginalized populations of students of color, students experiencing disability, and students experiencing socioeconomic insecurity. Dweck (2007) has identified the power of the collective growth mindset and

sense of self-efficacy as factors that can move a building system in dramatic ways over the course of a very short time. Donohoo's (2017) research adds, "when teachers share that belief it outranks every other factor in regard to impacting student achievement including socioeconomic status, prior achievement, home environment, and parental involvement" (p.1). This promising research highlights the importance of collective self-efficacy in improving student outcomes for all with a focus on the traditionally under-served populations of students of color and students experiencing poverty. Fullan and Quinn (2016) also emphasize the leader's role in this work toward establishing a collective sense of self-efficacy saying, "the leader who helps develop focused collaborative capacity will make the greatest contribution to student learning" (p.57).

Educational leaders are then charged with building systems and cultures where this collective sense of self-efficacy can thrive. Bryk and Schneider (2002) argue that collective decision making with broad teacher buy-in occurs more readily in schools with strong relational trust, when relational trust is strong, reform initiatives are more likely to be deeply engaged by school participants and to diffuse broadly across the organization, and relational trust forms a moral imperative to take on the hard work of school improvement. Changes made without this buy-in or collective sense of self-efficacy may be ineffective or implemented without fidelity, hindering progress. Bryk and Schneider's research indicates

> Absent more supportive social relations among all adults who share responsibility for student development and who remain mutually dependent on each other to achieve success, new policy initiatives are unlikely to produce desired outcomes. Similarly, new technical resources, no matter how

> sophisticated in design or well-supported in implementation, are not likely to be used well, if at all (p.144).

These warnings from Bryk and Schneider indicate the need for ensuring the collective sense of self-efficacy within the school system if we are to improve student outcomes.

Hattie's (2017) research also supports the impact of collective teacher efficacy as the top most influential factor related to student success with an effect size of 1.57, while other top staff related impacts have much lower effect sizes such as teacher credibility (0.90), teacher personality attributes (0.23), initial teacher training programs (0.12), and teacher subject matter knowledge (0.11) comparatively (visiblelearingplus.com, 2018). The importance of the collective and collaborative supports the premise of Improvement Science as well, leaning into the best ways to determine change ideas and the process of implementation to improve student outcomes.

Improvement Science allows us to try new strategies and implement change ideas strategically through Plan Do Study Act (PDSA) cycles. By taking the time to plan what might improve the system, implementing the change, and then studying the results before acting, our collaboration across the system can start small but scale up to large changes that lead to better outcomes for students. In Thonstad et al.. (2019), researchers share this same idea based on their implementation of Improvement Science in her middle school, "This opportunity to think deeply about the work requires great trust, but it allowed all staff members the opportunity to engage an to support forward progress" (p.272). This continued collaboration through trusting relationships allows continued forward movement across the entire system.

Compounding the complexity of improving schools are the multiple pandemics impacting learning. Research by Dorn et al. (2021) indicate that

> The impact of the pandemic on K–12 student learning was significant, leaving students on average five months behind in mathematics and four months behind in reading by the end of the school year. The pandemic widened preexisting opportunity and achievement gaps, hitting historically disadvantaged students hardest" (para. 1).

In every school system across our nation, students, particularly students of color, recent immigrants, children living in poverty, children receiving special education services, children receiving English Language Learner services, and children impacted by the collective trauma of a pandemic, poverty, home insecurity, violence, and many others, are not successful as defined by graduation, state and national testing, and many other standards set forth by local and state standardized tests and cultures. To better meet the needs of our diverse students, schools and school districts often look to professional development at both local and state levels to facilitate teacher growth and improve outcomes for students. However, as Shabani, (2016) notes:

> Professional growth does not occur overnight; it is a prolonged and time-consuming process which gets realized after several trials and errors. The novice teachers need to test their newly gained skills and ideas in actual settings and reflect upon applicability (p.7).

As school leaders seek improvement in classroom practice, professional development opportunities are offered and new initiatives begin with new curriculum, new teaching strategies, new tools, and new ways of integrating technology. Kozukin et

al. (2003) acknowledge that “as change initiatives chisel away at teachers’ sense of agency and efficacy, the research community notes the toll on spirit and resolve, at long last naming emotions as a crucial aspect of both student learning and teachers’ work” (p.326). This sense of agency and efficacy can influence an individual classroom, but it can also impact the overall culture and success of an entire school or district.

Context of the Problem of Practice

While each individual staff member’s mindset and sense of self-efficacy is a vital component of the school’s overall ability to serve its students and support their academic and social success, it is the school culture and how teachers learn and adapt practices to serve students that promote educational excellence and success across the system (Dweck, 2007). Decisions are not made by the leaders alone, rather by leaders *with* the input and support of educational assistants, secretaries, kitchen staff, custodians, families, student leaders and other community members. Donohoo (2017) advocates there are six enabling conditions for collective teacher efficacy. These include advanced teacher influence, goal consensus, teacher’s knowledge about one another’s work, cohesive staff, responsiveness of leadership, and effective systems of intervention (p.29). By ensuring the six conditions are established and maintained within the system, leaders can build staff collective sense of self-efficacy.

Improvement Science increases teachers’ sense of efficacy. As Eun (2018) notes, “In line with the characteristics of an efficacious person, teachers with a strong sense of efficacy are more tolerant than less efficacious teachers and are willing to persist in working with students who exhibit learning difficulties” (p.77). Eun recognizes “that the

most important performance incentives come from the school-level, especially by the principal's strong leadership in providing the adequate resources and continuous support of the use of innovative instruction in the classroom" (p.83). In other words, Eun encourages principals to review supports being provided to staff in their classroom continually. Improvement Science concepts include teachers in the decision making, as they are closest to the work.

In exploring this problem of practice, we recognize there are schools where deeper learning occurs in every classroom and schools where learning is based on test preparation and performance. Within a school, for example, there are some professional learning communities where student learning is demonstrated at a higher level while other professional learning communities have student outcomes that are varied and learning is inconsistent.

This multi paper dissertation focuses on the need to understand the role the adults play in the student's learning, including the social and learning culture of the collective staff. This is not to say that individual staff members cannot have an influence on creating changes that better support student learning and growth, but rather to argue that the power of the collective mindset and collective sense of efficacy acts as a catalyst to bring about systemic change. As Peterson and Carlile (2022) advocate, we must move beyond passive expectations and learning to move our systems forwards by seeking input and using information actively. If we are to improve the overall outcomes over a K-12 system with varied expectations, learning styles, and teaching practice, it is vital to understand the required leadership moves to facilitate productive adult mindsets and the growth of individual staff members' sense of self-efficacy that lead to decreasing

inequities and improving learning for every student, promoting a collective mindset and sense of efficacy in line with a learning school model.

As time moves forward, we have come to better understand much about how organizations grow and improve so that students of all genders, race, ethnicity, socioeconomic status, abilities, and diverse backgrounds are able to succeed. Administrators and school leaders work tirelessly towards this end, driving improvement and collaboration across a multitude of systems, both large and small. As Casas (2017) notes:

> [S]chool administrators are extremely passionate about what they do, can't imagine themselves doing anything else, and truly, truly believe they can make a difference in the lives of others. They believe it to the very core of their being that they can and will make a difference, hoping that the difference they make and the mark they leave on others will be positive and, in some instances, even life-changing(p.156).

However, to make this positive difference, school leaders must create the conditions for collaboration among teachers, classified staff, and leaders; build a collective sense of self-efficacy; and foster the growth mindset of each individual and the collective as well. Before taking next steps, school leaders must work to understand the current system and the many contributing factors to the problem they are seeking to solve. Through collaboration, leaders can support teams who identify change actions that could lead improvement efforts through PDSA cycles, take small changes, test their effectiveness,

and then consider adapting, adopting, or abandoning a change ideato improve their system as a whole.

Key concepts and terms relevant to the problem of practice

The following definitions will be relevant to the purpose of this study.

Collective teacher efficacy: Hattie (2018) defines collective teacher efficacy (CTE) as, "the collective belief of the staff of the school/faculty in their ability to positively affect students. CTE has been found to be strongly, positively correlated with student achievement. A school staff that believes it can collectively accomplish great things is vital for the health of a school and if they believe they can make a positive difference then they very likely will" (2018). Tschannen-Moran and Barr (2004) define collective teacher efficacy as the "collective self-perception that teachers in a given school make an educational difference to their students over and above the educational impact of their homes and communities" (p.190).

Community: Redding (1991) defines community in context of the school as "an assemblage of the people intimately attached to a school-its teachers, administrators, students, and the students' families" (p.7). He further clarifies that "when the school functions as a community rather than in a community, its constituents (students, parents, teachers, staff) associate with one another and share common values about the education of children. At the root, members of the school community assume responsibility for one another . . . Teachers are not isolated practitioners of pedagogy, but professionals integrated into the web of community and buoyed by common purpose" (p.9).

Culture: Hammon (2014) defines culture as "the way that every brain makes sense of the world," recognizing that "culture operates on a surface level, an intermediate or shallow level, and a deep level" (p.22). In the context of this paper, I will also use culture as defined by Shafer (2018) who says culture is shaped by five interwoven elements: fundamental beliefs and assumptions, shared values, norms, patterns and behaviors, and tangible evidence.

Professional Learning Community (PLC): A group of individuals that work together collaboratively to ensure students learn through the regular and intentional review of student achievement data and results. The focus of the group's work is to improve the outcomes for each student and for the students as a whole. DuFour (2004) defines the three crucial questions every PLC must use to drive their work as:

- What do we want students to learn?
- How will we know when each student has learned it?
- How will we respond when a student experiences difficulty in learning?

Self-efficacy: Self-efficacy is the belief that given a specific circumstance or set of circumstances, a person does have the ability to succeed and is capable of completing the task or executing what is expected of them. Bandura (1977) describes self-efficacy as "the conviction that one can successfully execute the behavior required to produce outcomes" (p.193).

Staff: The collective of all classified, licensed, and administrative personnel in a school building.

Staff mindset: The collective mindset of all adults including classified, licensed, and administrative staff within the building.

Teacher efficacy: Teacher efficacy as explained by Protheroe (2008) references "a teacher's sense of competence-not some objective measure of actual competence" (p.43).

Principles and Practice of Learning

In consideration of relevant learning theories that support the use of Improvement Science in schools and educational settings, both Vygotsky's Social Constructivism (1978) and Bandura's Social Learning Theory (2002) are most relevant. Looking through the lens of Vygotsky, everyone builds their own understanding and we build understanding together. Learning is an interactive process where work should be done primarily in groups. Building understanding together and working collaboratively are common best practices that we look to implement with students in the classroom; the same is true for adult staff when in the role of learners. Again, building understanding together and working collaboratively are especially important to consider when planning and determining professional development for school staff. Common practices may include Vygotsky's sociocultural theory as evaluated by Shabani (2016) who acknowledges "the superiority of Vygotsky's sociocultural theory over the existing ones because it takes into consideration almost all the relevant factors essential for teacher development including cognitive, affective, social, and contextual" (p.9). Each school setting is unique based on the individuals that comprise the staff, the students that are served, and the community in which the school engages. Daniels (2005) emphasizes "the underlying assumption behind the concept is that psychological development and instruction are socially embedded; to understand them, one must analyze the surrounding society and its social relations" (p.223).

Bandura's Social Learning Theory (2002) shares the importance of people learning through observation, noting that a learner's mental state is important and that learning does not necessarily lead to behavior change. As synthesized by Cherry (2019), "[Bandura's] learning theory added a social element, arguing that people can learn new information and behaviors by watching other people. Known as observational learning, this type of learning can be used to explain a wide variety of behaviors, including those that often cannot be accounted for by other learning theories" (para. 7). As both master and novice practitioners refine their work in the classroom and other learning settings, understanding the ways in which staff learn through observation is imperative to consider when looking to support growth with professional development. Providing opportunities for staff to learn from and with each other will strengthen the learning for the school as a whole. While these professional development opportunities are essential for growth and improved practices, Bandura's research (1986) indicates "among the types of thoughts that affect action, none is more central or pervasive than people's judgments of their capabilities to deal effectively with different realities" (p.21). Thus, shared learning opportunities can build this belief of competence for individual staff members in addition to the collaboration and reliance of staff members on each other to improve.

Bandura (2002) was also the first to coin the term "self-efficacy," identifying "four main sources of influence, including (i) mastery experiences, (ii) vicarious experiences, (iii) social persuasion, and (iv) emotional states. High self-efficacy has been linked with.resilience to adversity and stress, healthy lifestyle habits, improved employees performance, and educational achievement" (Lopez-Garrido, 2020). In considering these four sources of self-efficacy, professional development and learning

opportunities can be more effective for the participating staff, leading to improved staff learning and improved student outcomes.

As staff take part in available professional development, the most common approach is a one size fits all approach. Taking this approach is not in line with Vygotsky's best practices where staff enter the learning experiences with varying expertise and understanding before beginning the time together. When designing professional development for staff, the design team must consider what each staff member is capable of, their previous experience with the learning, and how they learn best. This learning should be within the zone of proximal development for each staff member, requiring additional planning and understanding of staff expertise[1]. For example, it is inconsistent with Vygotsky's model to provide professional development during the inservice week at the opening of school in the fall when new staff are being on-boarded and team dynamics are not known because of new staff configurations. New leadership in a building can also prove to be more difficult when building leadership is new to the building or system and unaware of staff expertise or team dynamics.

Kozulin et al. (2003) point to knowledge of staff being essential in designing professional development opportunities that will honor the master practitioners and support the novice practitioners. In designing these learning experiences, design teams must look to the zone of proximal development for each staff, utilizing specific aspects identified by Koulin et al. (2003) for a complete representation and accurate support for each learner:"*generality assumption* (i.e., applicable learning all kinds of subject matter),

[1] For more information, see page 9: *Vygotsky's Zone of Proximal Development*

assistance assumption (learning is dependent on interventions by a more competent other), and *potential assumption* (property of the learner that permits the best and easiest learning)" (p.41). Learning for each staff member will be supported when the learning is applicable to the staff member's role and needs, supported by an identified mentor or master practitioner, and is shared in a way that the learner can best learn based on learning styles and needs. Individual staff mindset is, therefore, essential because the individual staff that believe they can learn and improve will be open in these experiences. A growth mindset will facilitate extended learning and application of the work whereas a fixed mindset will limit a staff member's learning as they are closed off to improving where they are not already succeeding.

Staff sense of self-efficacy is also essential as they team together with master and novice practitioners with an understanding these roles are not fixed, but that they are set in these roles for a time until the attainable growth is reached and the novice becomes a master practitioner who in turn will support the next set of novice practitioners. In addition, the practitioners that are considered novice in one aspect may be considered master practitioners in other areas. Identifying the areas in which each staff member is both a master practitioner and novice practitioner supports the learning of the school team and encourages a learning community and culture throughout the building.

According to Vygotsky, because we build understanding together, it is important to understand the role each staff member has with a larger team of adults and the role the staff member's own experiences has on the way they educate students. Each team member must also understand themselves and what they are bringing to their team. Knowing one's self and their role in a team creates a stronger bond among members and

a greater ability to work collaboratively towards desired outcomes. Current student outcomes are the result of the system as it exists and functions in the given circumstances. When desired outcomes are not being realized, school leaders often look to professional development to support their staff and improve student achievement, but the reality of that implementation can be far from ideal. As Shabani (2016) notes,

> A crucial advantage of Vygotsky's approach to professional development over the existing models is that it attempts to surface the gap between theory and practice and unlike the previous models which highlight the practical issues, Vygotskian approach embraces both the theoretical and practical aspects; it makes connections between theory and practice by explaining the complex mechanisms of learning processes in actual sociocultural contexts. Moreover, it highlights the critical role of followup support systems in sustaining the effectiveness of teacher education" (p.9).

A common approach to professional development in the educational setting begins with a planned set of learning experiences in August during the inservice week before students arrive in our buildings. This provides an opportunity for licensed staff to learn together and is in line with the Vygotskian approach, acknowledging the value of social interactions and common learning experiences. However, most schools have licensed staff come together during this time while classified staff are not on contract and, therefore, not included in the professional development. If follow up learning experiences are not provided for the classified staff, a knowledge gap is created and furthers the divide of ability to support all students based on shared understandings of

current best practices and research-based strategies being implemented in the building. Furthermore, if licensed and classified staff, along with administrative staff, are not provided learning opportunities where they engage together, that divide or variation in learning changes the experiences of all involved, limiting the cohesive team experience that will have the largest impact on our students. Feuerborn et al. (2018) explain that in one area of school improvement, "Classified staff are charged with implementing the practices of SWPBIS [Schoolwide Positive Behavior Intervention Supports]; however, despite their direct involvement in daily implementation, they can be omitted from pertinent conversations, excluded from trainings, and when they are told what to do, the may not be told why" (p.112). Improvement Science as an improvement strategy would have included all staff and faculty in developing the SWPBIS plan from the very beginning.

In the improvement science model, the initial professional development offered during inservice week, follow up will vary from school to school and district to district. Some district or building leaders will follow up with professional development "boosters" during the year in staff meetings or assigned professional development days. These boosters may be reminders of expected implementation, sharing of practices related to the professional development, or next tiered support for taking the professional development to the next level. In order for these to be effective, it is essential that staff are allowed and expected to engage together, sharing practices and reflecting on their learning. Master staff should be identified who can support the learning of others and novice staff should be identified with intentionally identified learning objectives for that time together. Creating learning teams and groups is the responsibility of the

administrators and the building leadership team with a key outcome of supporting both master and novice staff in growing their application of the learning. Staff mindset is essential in this process with an understanding that every member can learn and improve their performance to better meet the needs of the students they serve. Staff's sense of self-efficacy also plays an important role as they work to implement new learning together. Administrative, licensed, and classified staff must learn and work together, valuing what each brings to the team and acknowledging that while there are different levels of expertise, those levels of expertise are not necessarily defined by role or job title(cite).

Some district or building leaders will follow up by aligning school improvement plan goals and individual staff goals to the professional development with observation templates and tools aligned to look-fors based on the implemented professional development. To best support the learning of the staff, it is important to include staff members with different roles and job titles to encourage shared learning experiences and to support the identification of master practitioners.. Traditionally, the building leadership team plans for goals that can be met through continued learning together throughout the year and for observation tools that help identify master and novice practitioners based on expected outcomes for students. Identifying the data that will support the identification of master practitioners is an essential role of the leadership team as they work to plan follow up support systems that will contribute to learning and growth throughout the year in a consistent way. Again, Improvement Science would approach this issue by first creating a team of those closest to the problem rather than the administrator identifying the problem, the solution, and how to measure its impact.

In a constructivist setting, the process is as important as the product. Often in education we look to the state testing scores or a child's grades as the measurement of success. These metrics are used to then assess a teacher's success without always acknowledging the process of the learning and ways the student might demonstrate their understanding outside a state or nationally normed test. When schools are held accountable solely or largely based on these achievement outcomes, test preparation and compliance models are likely to emerge. What is not accounted for is the learning that occurred as shown in the growth of each student and the academic processes that are strengthened as students experience both success and failures. By acknowledging the role of the learning process, we strengthen students' identities as learners and support their educational trajectory across a Pre-K to post-secondary pathway. Thus, teacher success is a combination of achievement of positive learning outcomes for students enhanced by growth mindset and self-efficacy strategies. Growth mindset and self-efficacy should not be considered as disconnected from student achievement.

It is also important to consider the professional development of staff beyond peer observations or modeling within training. Simply training teachers in a traditional lecture style model will not necessarily lead to improved practice for staff and in fact

> the socio-cultural theory emphasizes the social interaction that occurs during the training sessions as the main mechanism for teacher development. Mere observation of a successful performance will not lead to development and learning unless accompanied by guided interaction between the successful performer and the teacher participant (Eun, 2018, p.78).

Eun (2018) emphasizes the importance of the continued support and professional development beyond the initial pre-service week that constitutes most teacher learning. It is also important to note that this professional development is often limited to licensed staff only, with classified staff trained in shorter learning experiences or sometimes left to learn independently. This goes against Vygotsky's theory that we build understanding together and that learning should be an interactive process, focusing on some, rather than the team's, collaborative learning as a whole. The damage of this practice is evident when considering the classified staff who traditionally support students receiving Special Education or English Language Development services in classrooms.

The quality of professional learning can be inconsistent and vary across individuals, teams, and schools. In considering social learning, professional development or "training" for expected instructional changes are often done in collaborative settings with whole staff or professional learning community groups. These adults will learn together, but just because ideas and concepts were learned does not mean such training will result in a change in behavior. As Eun (2018) notes,

> Generally, within social cognitive theory, self-efficacy is a stronger predictor of future behavior than outcome expectations. Although self-efficacy beliefs are the strongest predictor of performance, the theory posits other incentives and disincentives and performance constraints that may hinder highly efficacious people from putting their knowledge and skills to action. Among other things, performance constraints may include a lack of adequate apparatus and resource" (p.77).

Higher self-efficacy can lead to a stronger willingness to try to master a challenge, to recover from setbacks and/or disappointments. For both staff and students, this higher self-efficacy can support learning leading to improved student outcomes and improved learning growth for students.

Both Vygotsky's (1978) and Bandura's (2002) learning theories emphasize the importance of considering the learning of staff and the relationship between the staff's mindset and sense of self-efficacy with the learning designed in professional development, as well as the importance of the role professional development plays in student learning and achievement. When considering professional development, it is vital to remember that people will only be motivated if they think they have the ability to accomplish the task. Focusing on Vygotsky's learning theory, "social constructivism emphasizes the importance of culture and context in understanding what occurs in society and constructing knowledge based on this understanding" (Derr, 1999). The administrators, building leaders, and district leaders have the responsibility of ensuring the school culture emphasizes learning for both students and staff, utilizing best practices grounded in learning theory.

Organizational Leadership Theory and Research in Education

The partnerships we foster in our schools and with those outside who support our work are not built based on a magical formula for success. People are complex, and the human business of education does not lend itself to easy answers as we look to improve the system our students engage in from early childhood through to adulthood. Bryk et al.

(2015) acknowledge “we all want to make a difference and each new idea may seem compelling. However, absent a clear understanding of the nature and the causes of specific problems to be solved, it is not always clear that each of these ideas addresses an actual, rather than an assumed, high-leverage problem” (p.175). Understanding the theoretical frameworks that create, sustain, and influence this educational system is essential as we seek improvements that will lead to more equitable outcomes for our students and a better work environment for our staff.

While numerous theoretical frameworks exist, the intersectionality of structural-functional, interpretivist, and critical theory lay the foundation for the work in this particular problem of practice. Capper (2018) strives to support the conceptual understanding of each framework and the ways in which each epistemology interacts with the others. While critical learning theories continue to evolve over time and new learning theories are recognized as we explore the complexities of our society and educational system, I will examine the problem of increasing collaboration to improve student outcomes by focusing on three of these theories: structural-functional, interpretivist, and critical theory.

To improve our school system, it is important to understand the structural-functional epistemology of our educational system that lays the foundation for how schools work and how the hierarchy of staffing is embedded in the culture of a school. This foundation contributes to understanding the biases, barriers, and entry points for implementing change as we look to improve our system. Recognizing how the interpretivist epistemology frames the interactions among students, staff members, and the community at large and how these interactions relate to each other is essential as well.

Finally, we must also consider the critical theory epistemology to better understand the power dynamics of the educational system and for whom the educational system works and who is disadvantaged by the system before we can make lasting changes that not only lead to those desired outcomes but help us identify what those possible desired outcomes are in the first place.

The complexities of partnerships between licensed and classified staff are entrenched in all three of these theoretical frameworks. From a structural-functional viewpoint, we must consider the existing social order, understanding that work is coordinated vertically through authority, supervision, rules and policies, planning, and control systems. Even when an administrator or classroom teacher seeks to use a distributed leadership model in their spheres of influence, it is the principal and the classroom teacher that are held responsible for the learning that occurs within the respective school and classrooms. There is still a separation among administrative, licensed, and classified positions made clear through varied contract negotiations, different pay scales, and clear lines about position requirements including educational and licensure prerequisites.

For students receiving special education services, for example, it is usually the licensed teachers who have formal training and education around the laws and policies governing the support of students and the Individualized Educational Plan (IEP). Classified staff coordinate with those licensed staff members who give direction to the classified staff and assign students or classrooms for support.

We must also consider the training and education of our administrative, licensed, and classified staff in an educational system that prioritizes professional development of

the licensed staff starting in the August Inservice Week when classified staff members are not yet on contract. Most staff meetings are geared towards classroom teachers and these meetings are often held during non-classified hours because of the structure of the school day and collective bargaining agreements with teacher unions. When these opportunities are optional for classified staff and must be attended without the structure of pay, the value for classified staff who are historically underpaid seems minimal. Additionally, school leaders are not able to violate the collective bargaining agreements by requiring attendance outside the contract day unless pay is offered. Even if leaders offer pay for the additional time, classified staff are not required to attend, making attendance voluntary and not equitable in terms of expectation, outcome, or experience.

As we seek to integrate the interpretivist epistemology into this problem of practice, it is important to understand this existing social order is legitimate, necessary, and not problematic. It is through the integration of that acknowledgment and the emphasis on personal awareness, the significance of relationships, and having a purpose or mission that we can begin to improve the partnerships within our schools and classrooms. In fact, Blackmore (2013) would argue the evolution of our system has changed in that

> Being in a formal position of power in hierarchical organizations of the 20th century did not require (leaders) to empathize or 'fraternize' with those in subordinate positions as part of their work. But now, emotions are central to leadership, empathy and interaction with others and increasingly significant in intercultural contexts where cultural displays, both gender and racialized, have to be negotiated (2013).

Integrating the interpretivist theory leaves the administrator or leader to serve as both facilitator and collaborator, understanding the balance between formal education and lived experiences, between staff position and staff to student relationships, as well as between hierarchy of role and expertise to address the current dilemma and value of collegial relationships between staff members from traditionally separated groups.

In this leadership model, it is essential to integrate all staff members into the work around building the school purpose and mission as well as the plan for how to achieve those goals. The administrator must work within the given system to allow for collaborative spaces between licensed and classified staff who are teamed in classrooms together. In supporting work between different classifications of staff members, the administrator should not limit that work to the staff solely in the classroom. Classified staff, such as custodians, secretaries, bus drivers, and more serve as vital partners in supporting students at school. Again, in the interpretivist model, the focus on relationships is vital and our students will connect with a variety of staff members across the system in different ways.

Moving into the integration of the critical theory epistemology, we must also borrow from the interpretivist lens in focusing on relationships but with a more focused lens on power, specifically, who has power and who does not. While an administrator is often seen as the leader of the school and the teacher is seen as the leader of the classroom, power dynamics are evident based on the relationships between adults and the collaboration that occurs between staff members. For example, who leads in a Professional Learning Community (PLC) meeting? Is it the same licensed staff member each time? Is there a named department chair? How are roles within the PLC defined and

determined? Moving beyond the single classification, are classified staff members invited or required to participate? What does their role look like in these meetings? How is their time compensated? What are the systems in place to enable equitable voice and compensation for participation in these meetings where decisions are made about serving students, identifying curriculum and resources, and what must be done based on data analysis?

As we attempt to best understand the apprenticeships and relationships among different classifications of staff members, the power dynamics between each group must be explored. Seeking to improve the success and learning of students, especially our marginalized and underserved populations of students of color, students experiencing poverty, and students experiencing disability, will require the review of the interactions and collaboration between those serving students in the classroom as well as in the spaces students inhabit during morning breakfast, passing time, restroom breaks, and visits to the main or counseling offices. For example, how is communication shared with the counseling secretary when a student has left the classroom? Is the expectation that the counseling secretary is the gatekeeper for the counselor? Does the counseling secretary serve as a mediator before the student can access the counselor? Or is there another role the secretary plays? In identifying this system, what does that mean for the student and how is the student made aware of the process? Who do the counselor and counseling secretary look like and how are problems solved between these staff members?

As we explore these three theoretical frameworks, the intersection among structural-functional, interpretivist, and critical theory is the key to improving our

educational system at large, and more specifically the partnerships among staff members within a school building.

One limitation of the structural-functional epistemology on its own is the lack of understanding of the human element that relationships play in any team or partnership. There are many factors to consider, including but not limited to gender, race, experience, financial status, and citizenship. Each individual staff member's identity informs and directs the day-to-day interactions and reactions as they collaborate with others. While these identities influence the relationships between their colleagues, they do not necessarily define them. It is the interplay and intersectionality among colleagues and staff members that determines the hierarchy within a classroom or school setting and defines how the collaboration moves the work forward.

The limitation of the interpretivist epistemology lies in the focus on individuals rather than on equity. While we might consider the individual student, their needs, and how to best support that one child, we might not always consider how that service model and plan serves other students who should also be considered. These individual plans also do not always consider the individual staff load and the overall needs and capacity of a team. For example, a specific staff member may excel at serving students who are highly impacted by attention deficit and hyperactivity disorder (ADHD), but placing all students who have been diagnosed with ADHD in the same classroom may not serve the best interest of all those students or the students in the classroom that have not been similarly diagnosed. Looking to the larger picture is essential as we move to better create and support staff partnerships.

Thorough review and analysis of the critical theory epistemology is vital, but even when equity is the focus, the question remains to what extent? There are different licensure requirements for administrative, licensed, and classified positions. What do equity and equality look like when considering pay for each job? What about in consideration of work hours and responsibilities? What should be considered when addressing the accountability for results? What does it look like to influence the system as it currently exists to better serve students of all racial, ethnic, linguistic, socio-economic, and ability backgrounds while also addressing the inequities of the adult systems and the policies and procedures of the educational system at large?

In order to effect lasting and intentional change in the partnerships among staff members in a school, we must be both aware of and critical of these three theories among the many others that influence the complex school systems that were founded in hierarchies and policies that have resulted in inequitable outcomes.

An analysis of current systems and variability in performance, and replicability of solutions requires the acknowledgment of the structural-functional, interpretivist, and critical theory epistemologies and the intersectionality of all three in our schools. As Hargreaves and Fullan (2012) state, this work is about improving as an individual, raising the performance of teams, and increasing quality across the whole profession.

Creating effective partnerships among staff will require systems to be in place that allow for collaboration to occur. Donoho (2017) insists “structures and processes need to be in place for educators to come together to solve problems of practice collaboratively” (p.37). This will need to include time to learn together through classes or professional development, time to plan together for lessons and student interactions or interventions,

as well as time to review data together and close the Professional Learning Community cycle of who is learning, who is not, and what will we do when we know this. By creating and evaluating structures to support collaboration, partnerships can thrive and grow to meet the needs of the ever-changing students in our schools.

In addition, creating effective partnerships among staff will require an intentional examination of the existing staff members involved in terms of their identity, experience, education, and personality. Knowing the staff members in the partnerships will allow administrators and leaders to support collaboration within each team. It will also be important to support the work for staff members to know themselves and to get to know their teammates if the partnerships are to grow and thrive in ways that support student learning.

Lastly, it will be important to consider the ways in which systems and relationships are being utilized to serve both the staff members and the students in the school and the resulting growth for student learning. Are all students learning and growing at appropriate proportional rates? For example, are students that are achieving at the lowest levels growing at the highest rates? Which students are learning and how do we know they are learning? Are the measures we use to support this equitable in their application and their measurement of student learning?

The many lenses we must consider in the exploration of the partnerships within a school building lead to complex systems that we must deepen our understanding of. However, without understanding the intersectionality of the theoretical frameworks that have defined our educational system at large, the changes we implement will only

continue the inequitable practices and outcomes we see in our classrooms and schools today.

Educational Policy and Politics

To say that education is not political would be a gross misrepresentation of the reality of our public school system. The structural-functional nature is foundational in the creation of our current educational system and continues to be pervasive in the hierarchy of classification of staff members. How staff members relate to each other in terms of classification, age, gender, race, sexual orientation, tenure, and many other possible identifiable categories is also largely political. Given the current climate and conversations happening across our nation, the persistence of who has power and who does not can hinder and impede our work to better meet the needs of students.

School board membership, school board policies, student and staff handbooks, collective bargaining agreements, disciplinary procedures, who we hire and promote, how we teach and evaluate learning and so much more decisions that impact students in every school across our country. These policies and practices represent the ideas of how to best serve students and how to keep them safe. Sometimes these documents are used in ways that are supportive of systems that are equitable, and other times they are not. Additionally, sometimes these documents are geared to address adult-oriented objectives rather than supporting student needs. Understanding the varied roles, purposes, and uses of these documents informs the language choices and the practicality of what is or is not included within them.

The culture of a building also mirrors the societal structures of our world outside of education as a system designed to continue the status quo. As Saltman (2018) noted

> School reproduces the class hierarchy while making it appear as if school rewards merit or talent rather than family wealth and income. That is, schools do not only teach skills and know-how; they teach skills and know-how thoroughly wrapped in class-based ideology (p.13-14).

This is evident in the disparate outcomes based on school locations, staffing, socio-economic status of the community, and outcomes for students of diverse race, gender, socio-economic status, ability, and identified specialized needs. Students that have successfully completed all 13 years in our public K-12 system should have equitable opportunities for the next steps, including college or trade schools. Where students go to school for elementary, middle, and high school does have an impact on their opportunities for learning and their options for post-high school success. Opportunities to attend specific local schools based on school district lines and boundaries is a political construct and the policies in place support that structure.

The politics in a school are largely impacted by the culture of the building. How administrative, licensed, and classified staff interact together and how they collaborate helps determine the social hierarchy within the building. Even within each classification of staffing, there can be a hierarchy as well. For example, is there an instructional leadership team in the building? These staff members may be seen as higher on the hierarchy than other staff members. Do you have veteran and probationary teachers in the same PLC? These staff members might also be seen at different levels within the

hierarchy of a school. The many different classifications of staff have an impact on the culture and much of this is politically designed.

The structure of professional development could be a defining indicator of the political landscape of the system. Again, when classified staff are not included in professional development during the in-service time that is offered before school begins in the fall, a message is sent that there is not a need for them to have that training or that if classified staff are willing to come to that training their time is not valued in the same way because they are also not paid. Also, when staff meetings occur outside of the classified staff contract hours, classified staff may have the opportunity to attend but again are not often paid for their time and their attendance may be a violation of their collective bargaining agreement if they are present. This licensed staff are valued over classified staff and creates a hierarchy system that perpetuates our societal expectations. Sometimes there is also a hierarchy structure based on these classifications because of the educational requirements for each position. For example, a classified staff might not have any college experience whereas a licensed staff member is required to have a college degree. Also, while a licensed staff requires a college degree, becoming an administrator requires additional schooling and training and, therefore, may be perceived as higher on the professional scale because of that learning and license. Administrators may also be perceived as higher on the professional scale because they are evaluators and decision makers with power over hiring, firing and retention of staff. Looking at the salary structure of many public schools, years of experience and college course completion are valued through an increase in pay. This also emphasizes the disparity and the intentionality of creating a hierarchy based on education. Classified staff do not always

have the same structure and often only years of experience are honored when considering pay, benefits, and seniority.

Beyond the political structure of social interactions and pay in our educational system, the culture of buildings is highly political as well. Innovation and creative thinking in a building will be limited when a negative or ineffective culture is the reality. To be clear, "culture is not about attitudes, words, or beliefs; rather, it is about specifically observable actions" (Reeves & Eaker, 2019, p.4). Staff members are acutely aware of how staff members treat each other; they talk about how administrators give feedback after an observation or evaluation; and they see the response when staff or students make mistakes.

The key in many of these observable actions is the modeling by the school leader. New and veteran building leaders are tasked with ensuring the school culture is one that strives towards academic and social success for all students. If a school has a negative culture, this is the starting place for their work as a leader but "leading cultural change is difficult-much more so than making structural changes such as changing school schedules or staff job descriptions. It is especially difficult if leaders don't focus on "the right work in the right way" (Reeves & Eaker, 2019, p.78). Administrators must leverage their professional capital (Hargreaves & Fullan, 2012) to move the system, coordinating among staff, students, families, and the community at large. One person alone cannot move the system, but the collaboration among these stakeholders will accelerate both learning and improvement. Hargreaves & Fullan (2012) identify the value of working with others and that a leader can accelerate the needed change understanding,

> People are motivated by good ideas tied to action; they are energized even more by pursuing action with others; they are spurred on still further by learning from their mistakes; and they are ultimately propelled by actions that make an impact- what we call ‘moral imperative realized(p.7).

We can reach this propulsion to action collectively in the work we do as leaders bring their teams together to work towards improved outcomes for each student.

When adults are hired into our K-12 educational system, they are placed into a category, the three most common being classified, licensed, and administrative. These assigned roles have political implications about value, worth, and voice as all staff members engage together on a daily basis. Reeves & Eaker (2019) acknowledge

> Everyone in any organization, whether it is a for-profit, nonprofit, educational, military, or any other organization, must not just understand how he or she fits in functionally but also have his or her own sense of purpose within the context of the organization’s mission and value (p.6).

When the people in the system have a sense of purpose within the greater context, the leader will more likely have the professional capital to implement needed changes to advance student learning and success (Reeves & Eaker, 2019).

One social structure administrators and leaders can utilize are the teams already established within the building such as grade level or content Professional Learning Communities or themed committees such as an attendance or discipline committee or the school’s Site Council. Again, the key is the leader’s role in modeling expectations through action and prioritization of resources. Leaders have to understand that “to make collaboration a way of life, schools and districts must embrace the power of collaborative

teams as the basic organizing principle and cultural norm," (Reeves & Eaker, 2019, p.84) and this embrace of collaborative teams must move beyond those in the building alone . Too often, team members are groups of only licensed or only classified staff members. However, "capturing the power of collaborative teaming should not be limited to those who have direct responsibility for teaching and learning within the district. Others, such as the transportation, food service, and maintenance departments' staff, can benefit from working in high-performing collaborative teams with those in similar roles" (Reeves & Eaker, 2019, p.93). Educational leaders can utilize these structures and their professional capital to implement needed policies and change policies that are inequitable or ineffective.

In terms of societal replication, our schools are currently set up to mirror the social standings of the community around it, leaning heavily toward the most vocal parents, families, and community member voices. Where a student attends public education, no matter the level between the elementary, middle, or high school, has an impact on their opportunities for success. Peterson (2013) argues, "communities experiencing high poverty need to consider how the school, governmental, non-profit, and faith-based communities will come together to support all youth in their community" (p.10). For example, which electives are offered at a high school may determine the number of opportunities a student may have to receive dual credit for both high school and college-level courses. Access to resources to support those elective classes also impacts the students' opportunities for long-term success. For example, two neighboring high schools might both offer a welding class, but one school might have a partnership with the local community college and the other does not, meaning students in the same

class at different schools receive different benefits. Alternatively, one of those schools might have access to a partnership with a local business. That school might receive equipment at a discounted rate or have access to mentors for students that are in the class. The other school might not have the same access so students receive different support or experience different technologies resulting in inequitable preparations for the workforce. In reality, Saltman (2018) shares "working-class and professional-class schools reproduce the stratified labor force while making such unequal sorting and sifting appear as a matter of either merit or natural talent" (p.14).

Leaders do have the opportunity to have an impact on that system and can use their professional capital to seek out these kinds of partnerships or connections to improve student outcomes. Building administrators can also utilize the structures within their school to ensure that every student receives an equitable education and receives the support and challenges that are needed to help them reach their full potential. Sometimes buildings are set up with these structures already in place, but there are also buildings that have only some of them in place and a leader must implement new structures, ideas or policies. "Every leader aims to create personal and organizational change that results in continuous improvement, but successful and sustainable change is often elusive. Change begins not with hierarchical commands, but with effective introspection" (Reeves & Eaker, 2019, p.4). This is where politics and education collide, utilizing the social structures and the policies to seek real change in a system designed to replicate what already exists.

As a leader, knowing and understanding your system as it currently exists is essential in leading the work. Even if a building has a perfect success rate for all students

and staff, our world is ever-changing and the assumption will be that every year we start over again in the fall ready for a new set of students and challenges and ready to accept needed shifts to achieve the same results. There is no such thing as a perfect system and there is no such thing as a perfect leader. Administrators have the difficult task of recognizing where the system needs to improve and leading those change initiatives. As Sensoy & DiAngelo explain "The way we explain (or theorize) a problem determines how we respond to a problem" (2017, p.129). They acknowledge the importance of a leader's professional capital and explaining the problem and moving the needed work forward. This is not easy work and it is important to acknowledge the complexities of leading multiple teams and including various stakeholders in the processes who may have conflicting priorities or understandings of the system as it currently exists. "Leading the reculturing of organizations and creating a culture of continuous improvement is, in many ways, a performing art, requiring ingenuity" (Reeves & Eaker, 2019, p.80). Even when a system is successful, staffing changes regularly through retirement or shifting staff. Even with a single staffing change, the system itself changes, and a leader must now train a new staff member and ensure the successful work continues, the changes that need to be made are implemented, and that the new staff member or members are able to integrate into already functioning teams. With this do-over at the start of every year, there's another reason our Educational Systems are so complex and emphasizes the importance of a recognition of the political nature of our system. Even if the system has consistent staff members who are engaged in the work and keep students at the focus of all they do, success is not guaranteed. Bryk and Schneider (2002) argue "schools with a strong base of social ties are better positioned to improve their organizational effectiveness. Those

lacking such social resources find the task more difficult" (p.119). Leaders can utilize teams to work more effectively and efficiently to both identify problems that currently exist, to solve those problems, and to work towards equitable outcomes for all students. Fortunately, "human beings have an innate inner drive to be autonomous, self-determined, and connected to one another. And when that drive is liberated, people achieve more and live richer lives" (Pink, 2009, p.73). Utilizing this innate inner drive, we can improve educational systems as they currently exist.

Conclusions and Recommended Actions with Respect to the Analysis of the Problem

The educational system continues to adapt to the ever-changing climate, culture, and demographics of our society. If current trends continue, students of color will soon represent the majority of the population in our schools. As a larger system, we must continue to adapt to what is needed and to support the changing demographics of the students who are attending our schools, every day. Oftentimes the barriers of union contract language, external factors impacting our schools,, and outside governing bodies and policies hinder our work and we focus on what cannot be done. Classified, licensed, and administrative staff need to continue to work together to ensure that we reach all students. It is the teacher's responsibility to ensure that this climate and culture exist within their classroom. It is the leader's responsibility to create and nurture that climate and culture within the schools. It is the district leadership's responsibility to model and foster this climate and culture for everyone in the system; and teachers, school, and district leaders need to foster this climate in the community at large.

When educators enter the field, they come to teach students and support their growth. With the many initiatives in place or being introduced throughout an educator's career, it is easy to lose sight of our purpose and our goal, focusing on the details of task completion and moving from day to day. The call to action for leaders is clear; they must be prepared to see the system as a whole as well as create the conditions for finding the detailed path that leads to success. Bryk et al. (2015) argue "seeing the system is essential to achieving quality outcomes reliably at scale" (p.58) and Improvement Science offers a methodical way to both see the systems as it currently exists and to identify high-leverage changes ideas in a specific context. Barker et al. (2020) argue that "as a strong instructional leader, your clarity of purpose becomes the thread that weaves through everything you touch, from instructional programming, to master scheduling, to the importance you give to the mundane managerial tasks that are also requirements of the job" (p.49). Before they can lead others, however, the individual instructional leader must create the conditions for collaboration and focus on the purpose of each effort.

Recognizing the importance of the collective understanding of a team's purpose, the leader must begin by identifying leaders within their system. Grieser et al . (2019) recognize the significance of this first crucial step:

> In order to successfully change your culture, you first need a committed group of people who will lead the change. Without at least a small group of dedicated culture change leaders, it's hard to even begin. The good news is that it only takes a few dedicated and persistent people to make a powerful impact within your organization (p.159).

Leaders, whether veteran or new to a school, must seek out a diverse group of staff to begin this work. It is essential that classified, licensed, and administrative staff are a part of the leadership team, reflect the racial, gender and linguistic diversity of the school and that the team understands that all members are equal parties in the work. The leader has to model effective, culturally responsive listening practices so that all are welcome at the table. When this leadership team shares their work, it is essential that multiple perspectives and voices are used to share with the larger team, and specifically the voices of staff of color who are often not invited to be at the table. By allowing varied staff members to share out the team's work, the leader is modeling the importance of collaboration and equity in voice for the entire school. In effect, the leader is modeling best practices for the classroom as well. If a teacher is doing all the talking the teacher is also doing all the learning. So too, with the leadership team on a staff. If the principal is doing all the talking, the principal is also doing all the leading (Gracey, 2021), perpetuating the hierarchy we are seeking to deconstruct in order to better serve our students. School and district leaders have the power and capability to shift this hierarchy to a more constructive and collaborative leadership style that improves the system within which they work.

As this team embarks on their collaborative journey each year, it is also important to recognize where the team and school have been, the historical contexts and complexities of the school, and the relationships and humans that work together. As any changes are made, fear, confusion, excitement, and many other emotions may emerge. A typical response might be to engage the school community with enthusiasm and encouragement, trying to support the positive reception of the changes being

implemented. However, it is also important to recognize the other, possibly less appealing side to change implementation, as a way of recognizing both the time and the learning any change will cost. Brown (2018), who often writes on leading when change is hard, insists that "leaders must either invest a reasonable amount of time attending to fears and feelings, or squander an unreasonable amount of time trying to manage ineffective and unproductive behavior" (p.70). Without acknowledging the fears and feelings associated with an impending or current change initiative, the implementation may be stagnant, unsupported, or be doomed to fail before it even begins. Improvement Science avoids these pitfalls by engaging those closest to the issue being address (teachers, staff, families, and students) to identify the problem, select potential interventions, measure whether the change is an improvement, and then decide whether to adapt, adopt, or abandon a change idea.

As school leaders, we must ensure that in attending to these fears and feelings, we address and recognize the impact for both classified and licensed staff, as well as families, students, and the community. Any change made within a school may have an impact on the entire school community though the impact may not be the same. By acknowledging both the change and the different impacts, a school leader can create a sense of belonging and an opportunity for collaboration among classifications of staff members with intentional teaming or pairing to support the work.

The responsibilities of a school leader are all-encompassing, but to that end, the leader's key responsibility is to build a team within their system that can adapt to meet the ever changing needs of the students in our schools and under our care. Each individual staff member's sense of self-efficacy can determine how change

implementation occurs and the collective staff sense of self-efficacy can either ensure or doom a change from its beginning. In teams that work collaboratively, unburdened by the focus on hierarchical positioning, change practices are more likely to support student learning and growth. Scott (2017) shares the importance of culture and the leader's role in supporting a team, saying

> A team's culture has an enormous impact on its results, and a leader's personality has a huge impact on a team's culture. Who you are as a human being impacts your team's culture enormously (p.220).

As a leader, constant reflection on who you are, how you show up for your team, and what you allow will all impact your school climate, culture, and overall ability to adjust to needed changes.

In his book *Us Against You*, Fredrik Backman (2019) states, "culture isn't just what we encourage but what we allow to happen" (p.35). If staff are not working collectively or if there are indications that the attitude of hierarchy we seek to change is still in place, it is the leader's responsibility to have the touch conversations, growing the capacity of all team members to do what is best for students. By growing each individual. staff member's capacity, we grow the team's overall capacity and allow for greater success for students. However, a leader must be ready and willing to engage in these tough conversations in ways that will hold staff accountable for changing and model listening and collaboration simultaneously. This is often not easy, but as Brown (2018) notes,

> choosing our own comfort over hard conversations is the epitome of privilege, and it corrodes trust and moves us away from meaningful and lasting change p.9).

Building and maintaining trust within a school must be a priority and built upon by all. Bryk and Schneider (2002) insist "trust is rooted in the microdynamics of day-to-day social interactions among teachers, principals, and parents" (p.122). Our goal is to come together and support the needed changes to ensure all students learn and reach their potential and this requires discomfort, examination of assumptions and biases, self reflection, and growth along the way.

While each individual staff member's growth mindset and sense of self-efficacy have a significant impact on their ability to implement change and support student learning in their given role, it is the collective teaming of those individual staff members that will propel an entire system to greater success in achieving student learning and achievement (Dweck, 2007). By acknowledging and working to dismantle unnecessary hierarchical systems that impede collaboration across staff classifications, we create a system that will model inclusion for all and foster the ideation needed to determine changes that will move us forward, past the century old traditions of an educational system created to produce adults ready for a world we left behind a long time ago. Brown (2018) puts it best, saying

> Daring leaders fight for the inclusion of all people, opinions, and perspectives because that makes us all better and stronger. That means having the courage to acknowledge our own privilege, and staying open to learning about our biases and blind spots" (p.108).

This is how we move forward and this is how we change our system.

As a leader, focusing on individuals and our relationships as a team must be essential to our purpose every day. The work we do is tiring and exhausting and requires

both a sense of purpose for direction and a stamina cycle to endure that spans from the first to the last day of school. We cannot afford to give up a single day of learning with our students, but that capacity requires teamwork and care for each other. Grieser et al. (2019) share

> When relationships are absent or unhealthy, we do not have the interest or energy required to go above and beyond. We move toward individualism, and our priority becomes simply getting to the end of the day (p. 104).

We simply cannot afford to be in a rhythm of simply getting to the end of the day. Our students need more from us. By nurturing each individual staff member's growth mindset and sense of self efficacy, we grow the potential for new ideas and changes to be made. By working collectively and collaboratively across classifications, we reject the system that was set up in ways that encourage a hierarchical workflow and broaden the perspectives in seeing the system as it currently exists.

The leader must model and make this the reality within their school or we will perpetuate the achievement gaps, the school to prison pipeline, and the economic disparities that are disproportionately impacting communities of color. It is up to us, the teachers, staff, and leaders in our schools to make change happen. Every day. For every child.

Growth and Grading: Overcoming “Grades Don’t Matter” in Middle School

Thonstad, C. (2019). Growth and grading: Overcoming "grades don't matter" in middle school. In R. Crow, B. N. Hinnant-Crawford, & D. T. Spaulding. *The educational leader’s guide to improvement science: Data, design and cases for reflection* (pages 257-273). Myers Education Press.

This chapter has been previously published.

Chapter Abstract

In this case, the author will focus on the process of implementing Improvement Science as a new administrator in a struggling building. Students at Mystery Middle School, a high poverty 6-8 school that houses just over 500 students, have traditionally underperformed compared to their partnered middle school within the district, with grades, normed formative assessments and state tests including the Smarter Balanced[2] English Language Arts and Math exams. The problem of practice being explored in this case study is common to many educational institutions: Over 20% of our students were failing nearly half of their classes only two months into the school year and the failure rates were disproportionately representing males and students of color.

Through the use of Improvement Science principles, beginning with empathy interviews, seeking to see the system at large, and brainstorming many potential change actions, staff at Mystery Middle School were able to implement one change idea at a small scale that is now creating big changes across the system.

From once a week meetings between the assistant principal and 14 individual students, to building-wide grade checks and the implementation of a homeroom system, course failures have dropped dramatically and growth on normed formative assessments and state tests have increased as well. The process for the empathy interviews, questions asked and sample response, fishbone and driver diagrams, results and change implementation throughout PDSA cycles, and next steps will all be shared as a way to model how small changes that stem from a solid understanding of the overall system

[2] The Smarter Balanced Consortium is a national standardized test for mathematics and English language arts based on the Common Core State Standards

creating the problem at hand really can lead to large scale changes that impact student learning and success.

While most applicable at the PK-12 system level, the process used in this case could be replicated across buildings in Community Colleges and in Higher Education institutions. The goal of this chapter is to share a case study where Improvement Science principles have been utilized to take steps towards solving a common problem of practice experienced across the nation in PK-12 schools.

Keywords

A list of six (6) keywords relevant to the chapter

- Empathy interviews
- Intervention
- Variability
- Middle school
- Failing grades

The Setting/Background

Mystery School District (MSD) is a smaller district serving approximately 5,000 students K-12 across ten schools: six elementary schools, two middle schools, one high school, and one alternative high school. MSD is situated in a rural community of 22,500 people with strong industries of wine production and agriculture and is well known for recreational opportunities in and around the area making tourism a large contributor to

the local economy. Two of the elementary schools qualify as Title I schools and both of these feed into Mystery Middle School.

Mystery Middle School is a 6-8 school and has approximately five-hundred students with self-selected racial identifications of 1% Asian, 1.8% Black/African American, 25.3% Hispanic, 4.8% Multi-Racial, and 66.5% White. Approximately 15% of the students receive special education services and 49% applied and qualified as economically disadvantaged. There are eleven languages spoken by the students and 21% qualify as Ever English Learners.

In comparison, the district's other middle school, Close Middle School, is also a 6-8 school that has approximately six-hundred students with self-selected racial identifications of 2% Asian, >0.01% Black/African American, 16.5% Hispanic, 4.3% Multi-Racial, and 76.2% White. Approximately 15% of the students receive special education services and 39% applied and qualified as economically disadvantaged. There are six languages spoken by the students and 15% qualify as Ever English Learners.

Between the two middle schools, Mystery Middle School is known for being more racially diverse when looking at student demographics with a higher population of students receiving special education (SPED) services, English Language Learner (ELL) services, and qualifying for free and reduced lunch. Mystery Middle School also has a reputation for a more challenging environment with student discipline issues and a perceived lack of both family and community support.

Need for Improvement

In the spring of 2017, one administrator left the district leaving a vacancy and opening up the opportunity for administrative shifts throughout the system. The superintendent opted to meet with each administrator across the district and discuss skill sets, needs for growth, aspirations, and building needs. In the end, eight out of ten buildings were impacted by administrative shifts announced in early May for the following school year.

In these shifts, both the principal and assistant principal at Mystery Middle School were shifted to other buildings and, Olivia, a veteran principal with nearly a decade of experience in administration and over thirty-five years of experience in education overall, was moved into the principal role. Diana, an instructional coach with four years in educational leadership roles and twelve years in education, was just completing her administrative license and was appointed to the Assistant Principal role. With leadership changes across the district, it was well known that Mystery Middle School was being assigned these two new leaders because the school was not meeting performance expectations and significant changes needed to be made. This was the environment that Olivia and Diana were stepping into in August of 2018.

Knowing failing grades had been a significant issue the last several years at both middle schools, but at Mystery Middle School in particular, Diana used the student grading system to pull grades in October. It was astounding to see that 14% of the students were already failing three or more classes only seven weeks into school. Only two weeks later, that number had raised to 21.3% meaning roughly one in every five students was failing nearly half their classes or more. Looking deeper into that 21.3%, the data showed an even more disparaging picture:

Table 1.1 School and Failing Demographics

	Female	Male	Hispanic	White
School demographics	50.0%	50.0%	25.3%	66.5%
% of students failing three or more classes	37.5%	62.5%	39.3%	53.6%

The school was disproportionately failing males and Hispanic students at an alarming rate, continuing to increase the achievement gap for students that moved through the system within the district. Something had to be done.

Testing the Change

Study & Act: Using Empathy Interviews to See the System

Having learned, studied, and used improvement science for three years, Diana sought to use this structure to better understand the system as it currently existed and to have an impact on student learning. The first step was seeing the system through the eyes of those closest to these failing grades through empathy interviews with students, families, and teachers. (See Class Activity #1) Students were chosen randomly through hallway encounters, disciplinary conversations, and lunchtime interactions. Families of some of those students were contacted through phone calls or talked to at Parents Teacher Conferences. Teachers were selected based on those that currently assigned the most

failing grades and the least failing grades. Results from these conversations were used to create the fishbone diagram below.

Based on conversations with all of these users, themes that contributed to current failing course grades were: lack of academic skill for the student, unsupportive teachers, out of date grades, lack of time for students to receive support, student's attitude towards

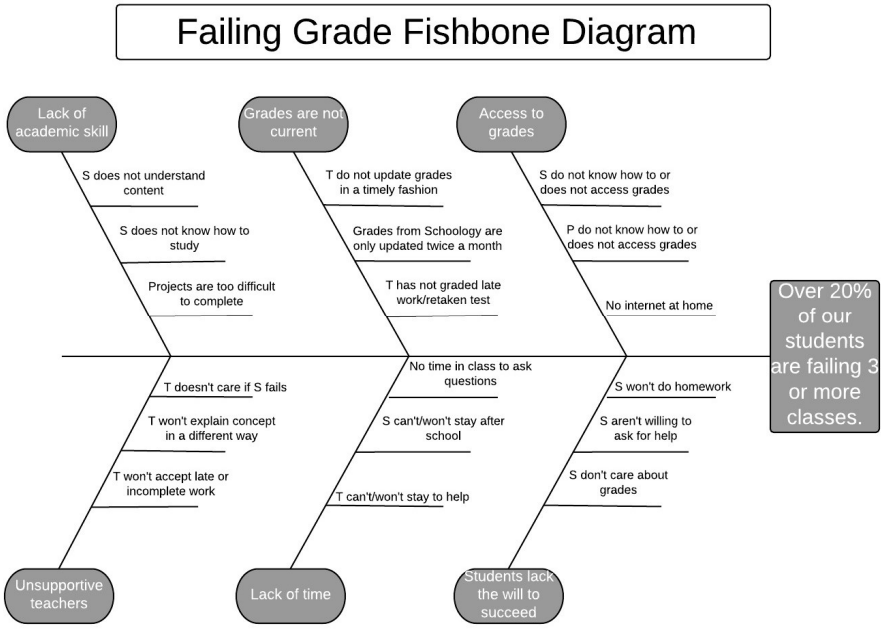

Figure 1.1 Failing Grade Fishbone Diagram

grades and willingness to succeed, and inadequate access to see student grades. Armed with a better understanding of the system as it currently existed, Diana sought to determine possible drivers and action items.

Plan: Seeking to Determine Action Steps

Working through the improvement science driver diagram process, Diana collaborated with colleagues to identify several possibilities for action items that might

impact student learning and over time, allow for greater student success as measured by course grades. Some of the options could be implemented immediately while others required systemic change that would prove difficult for both a new leader in the building and a new to the profession administrator. The following driver diagram was created:

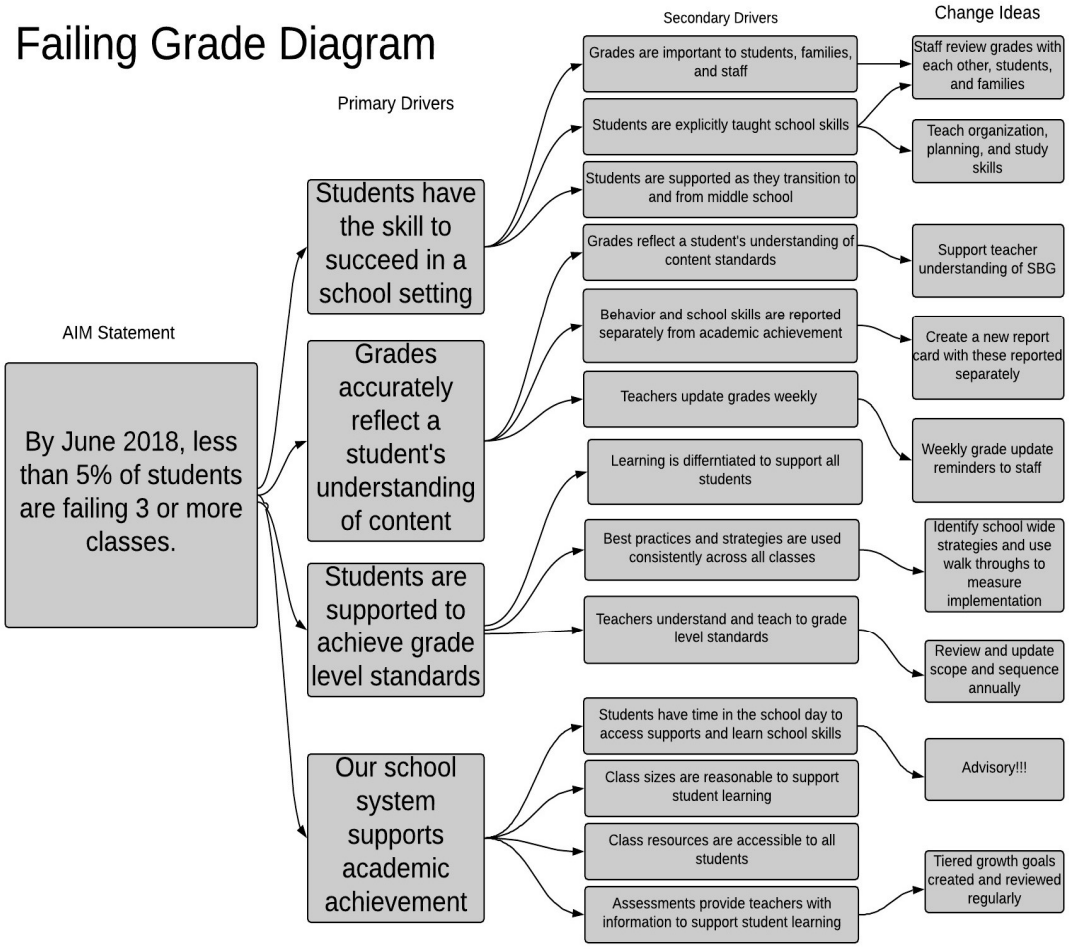

Figure 1.2 Failing Grade Driver Diagram

Based on the improvement science concept of starting small with a bias towards action, Diana chose fourteen students that had a high frequency of office visits because of

disciplinary concerns that were also on the list at the beginning of November for three or more failing grades. These students would be called into the assistant principal's office once each week to check grades and create an action plan for improving academic performance.

Do: Trying Out a Small Change

Once a week, Diana sent call slips for students out of their classroom. There was not a strict discipline about when this happened, rather a strict discipline within the conversation around grades. The structure was:

1. Check-in/Relationship Building
    a. Diana asked general, non-academic questions:
        i. How are you?
        ii. How was your weekend?
        iii. Is that a new shirt?
2. Academic Check-In Predictions
    a. Diana asked specific academic questions:
        i. What are you proud of from this week?
        ii. What will we see when we look at your grades?
        iii. How do you think your grades have changed and why?
3. Grade Check
    a. Diana accessed grades online

b. Student wrote grades as percentages, noting growth with stars

c. Diana asked student about changes:

i. Why do you think that grade changed?

4. Planning

a. Diana asked specific, directive questions for planning:

i. What grade or grades would you like to focus on this week?

ii. Why are you choosing that class?

iii. What are your next steps?

b. Diana asked specific questions for support

i. What do you need help with?

ii. Do you know how to access that help?

5. Conclusion

a. Diana reviewed the plan with the student as the student wrote the plan on their grade check form

b. Students repeated back the plan as Diana wrote the plan on a post-it note

c. Diana kept the grade-check form, Student kept the post-it note and placed it in the agreed upon place for reference

i. Post-it might have gone on a planner page, the front of the student's binder, or other location

Study: Taking a Closer Look at the Changes

Over the first two weeks, three of fourteen students improved one or more grades by a full letter grade, one increased by a single failing grade, and eight of the ten remaining students had improved grades based on percentages in more than half of their classes. Students reported being less overwhelmed by failing grades after making plans each week to focus on one or two specific classes and were amazed at the grade changes they were seeing so quickly. (Note: One of the strategies used in the structured conversations was to teach students how to identify and prioritize which assignments would have the biggest impact on their grade.)

Act: Adapting the Change

After talking with students and seeing the results after only two weeks, Diana went to her principal to discuss what she was seeing. As a team, Diana and Olivia determined the next step would be to adapt the process by scaling it to a few more staff members, specifically the administrative and counseling team.

Plan: Setting Up the Next Cycle

Olivia agreed to take on ten students from the list and asked counselors if they would do the same. Each of these three staff chose students based on already knowing them and having some relationship with them, determining they could have an impact on these students through that connection. They would also go through the process of grades checks with their students each week and as a team, they would continue to measure academic progress.

Do: Adapting the Adaptation

Within a couple of days, word got out about what the administrative and counseling team was doing as students were pulled out of class, returning ten minutes later and sharing why they had been called to the principal or counseling office. Between the four on the team, forty-five students (approximately 9% of the student population) were being pulled out in those initial days.

This created a buzz around the school and ten other staff members, including secretaries, teachers, and educational assistants, reached out to choose students they had relationships with from the list as well. By the end of the fourth day, there were eighty-six students with a mentoring adult. Staff met with their students using a similar protocol for the next three weeks. While staff were asked to stay as close to the procedure as possible, variability within these conversations and with the frequency of the conversations themselves was inevitable.

Study: Reviewing the Scaled Changed

After three weeks, the administrative and counseling team reviewed the data comparing the eighty-six students who were receiving support to the twenty-six students who were not based on the original list of failing students generated in November. Here are the results:

Table 1.2 Failing Grades November to December

	November to December

	With Support	Without Support
N	86	26
% with less D/F	24.42%	23.08%
% with more D/F	12.79%	19.23%
% of Students with All Passing Grades	3.49%	0.00%
Average # of D/F Difference	-0.22	-0.08

Most notable, three students receiving support no longer had any failing grades and while the percentage of students with less D's and F's were similar, the percentage of students without support that were now failing more classes was astounding.

Act: Adopting the Plan to Seek Additional Evidence

The team felt like they were providing a stop-gap to the worsening grades at least and wanted to continue the work. All fourteen staff agreed to continue supporting their students until the end of the semester which was six weeks away, with a mid-point check-in scheduled in three weeks to review results.

In December, the administrative team created student profiles and invited all staff to select one, share with others, and reflect on the current reality for many of their students at the monthly professional staff development. These profiles included racial, gender, and grade demographics, current academic standing, and a short narrative about each student. The goal of this activity was to help build empathy for what students were

going through and to help staff see potential barriers for academic success. (See Class Activity #2)

At the staff professional development in January, the administrative team walked the staff through a crosswalk of the district equity and grading policies, asking partnered staff members to each read one policy and share out connections, wonderings, and epiphanies during their conversation. By reviewing board policy, staff better understood the K-12 perspective on the purpose of grades and the stance on equitable outcomes for all students. (See Class Activity #3)

In January, the team also decided to share the November to December and December to January data with the whole staff. At that time, four staff members not included in the initial fourteen volunteers saw the results and chose to start implementing grade checks each week with all of their students through the end of the first semester. This resulted in some students connecting with two or three adults about their grades each week and nearly two hundred additional students engaging in grade checks from January to February weekly with staff, meaning approximately half the staff and students were now participating in weekly grade checks.

Here is the data the team reviewed at each point:

Table 1.3 Failing Grades Semester 1

	November to December		December to January		January to February	
	Students w/support	Students w/o support	Students w/support	Students w/o	Students w/support	Students w/o

	person	person	person	support person	person	support person
N	86	26	86	23	83	21
% with less D/F	24.42%	23.08%	15.20%	15.40%	44.58%	76.19%
% with more D/F	12.79%	19.23%	10.50%	23.10%	15.66%	0.00%
% of Students with All Passing Grades	3.49%	0.00%	7.10%	0.00%	13.25%	9.52%
Average # of D/F Difference	Down 0.22	Down 0.08	Down .38	Down .06	Down 0.13	Up 0.02

In addition, there were significant changes in work towards closing the achievement gap with a higher percentage of students identifying as male or as Hispanic improving their grades by the end of the semester.

Table 1.4 Failing Grades Semester 1 by Demographic

	Female	Male	Hispanic	White
School demographics	50.0%	50.0%	25.3%	66.5%
% of failing students with improved grades from	42.6%	57.4%	39.7%%	48.5%

November to February				

Another significant data point was the number of students with three or more D's and F's dropped from 23.5% in November to 13.5% in February. While there was still a lot of work to be done, the team felt grade checks were helping to support student academic success.

Implementation

What was most notable from January to February was the significant change for students without a documented support person in ways that were showing academic success. When the team met to discuss these results, they recognized the substantial increase in the number of students participating in grade checks each week for the last few weeks and wondered what might be the next step. The staff of Mystery Middle School asked if they could trade the weekly planner checks for weekly grade checks instead. As a staff, the agreement was made to have all students do weekly grade checks in their Humanities classrooms. Because of this, some of the original fourteen staff stopped doing weekly grade checks knowing these were happening in a different classroom environment. Olivia and Diana continued meeting with their students for weekly grade check-ins as did some of the other staff volunteers, but the regularity of these interactions was lessened.

After a full semester of weekly grade checks across the entire system, here is the data the team reviewed at the end of the year:

Course Grades:

Table 1.5 Failing Grades Semester 2

	February to June	
	Students receiving support	Students who did not receive a support person
Have Less D's and F's	34.94%	36.36%
Have More D's and F's	33.73%%	45.45%
Improved 2 or more grades to passing	8.43%	4.55%
No longer have failing grades	14.46%	9.09%
Average number of D's and F's	Down 0.11	Up 0.54

Nationally Normed Local Formative Assessment:

Table 1.6 Nationally Normed Local Formative Assessment Results

	Winter ELA Local Exam	Spring ELA Local Exam	Change	Winter Math Local Exam	Spring Math Local Exam	Change
CMS	65.5%	66.2%	0.7%	55.3%	51.9%	-3.4%
MMS	65.2%	73.4%	8.2%	53.0%	52.7%	-0.3%

Smarter Balanced Test Results:

Table 1.7 Smarter Balanced Assessment Results

	2017 ELA SBAC	2018 ELA SBAC	Growth	2017 Math SBAC	2018 Math SBAC	Growth
CMS	53.9%	48.0%	-5.9%	40.6%	35.4%	-5.2%
MMS	49.4%	56.7%	7.3%	32.1%	38.9%	6.8%

In implementing grade checks across the building, the team determined two main ideas they wanted to focus on based on observations during the second semester.

1) Students seemed to benefit from having grade checks on a weekly basis. Specifically, weekly grade checks was helping close the achievement and learning gaps seen at MMS.
2) Students benefited from these conversations more when the conversation was with a staff member they had a relationship with, regardless of whether they were in an academic class with that staff member.

With these two main ideas at the center of their work, Mystery Middle School decided to institute a homeroom class for the 2018-2019 school year where smaller numbers of students would be assigned a specific staff member including teachers, educational assistants, secretaries, and administrators who would meet with that small group of approximately fifteen students to review grades, support through study hall, and focus on community building. These groups will be mixed grade level and mixed gender,

meeting four times a week for twenty-five minutes each day with a focus on supporting students both academically and socially.

One of the greatest challenges with this radical scale up and class creation is the variability the staff acknowledges will exist in a building-wide implementation. Questions have already been asked, such as, "How do we know grade checks will be implemented uniformly across the building?" or "How do we know the grade checks are what is making the difference?"

With data stored for nearly a decade, Mystery Middle School will be able to look at overall trends for grade changes at the end of each semester to see what changes might be observed. Data that will be reviewed includes:

- Number of failing grades
- Number of students failing three or more classes
- Failure comparisons by gender, race, and grade

In the shorter term, the administrative and counseling team will partner to look at grades on a monthly basis, reporting out students they are concerned about and general trends across the building. One greatly anticipated difference the team is looking forward to is that when a student is identified as being at risk with failing grades, they will already have a person they are assigned to through the homeroom system to find support and guidance. Data that will be reviewed includes:

- Number of failing grades
- Number of students failing three or more classes
- Failure comparisons by gender, race, and grade
- Homerooms with the least and most academic growth

- Empathy interviews with students, families, and staff

It is the hope of the team, that by looking at data each month, additional adjustments and changes can be made throughout the year to the new Homeroom Class to encourage academic success that will result in passing grades at the end of each semester and higher overall achievement.

Discussion

Key Considerations:

Really understand YOUR system-

Ask questions and emphasize both local data and the voices of users.

In understanding a problem deeply, it is important to recognize that your system is setup to get exactly the results it is getting. If students are failing, your system is setup for that to happen. If staff are excited and collaborating together regularly, your system is setup for that too. It is essential to deeply understand your system from the eyes of the users. Also, do not be afraid to use empathy interviews as data. Some of the best learning the staff at Mystery Middle School accomplished was through Empathy Interviews.

Start with the coalition of the willing-

Allow early adopters to share the work.

Many different works now discuss what Malcolm Gladwell calls "The Tipping Point," acknowledging that there are an initial group of early adopters who will be excited about the latest and greatest ideas, while others will hold out until the bitter end. By starting small and sharing data, discoveries, and asking questions throughout the

process, early adopters at Mystery Middle School signed on and shared their excitement. Other staff followed, taking initiative from staff leaders' suggestions and experiences keeping the work user-centered and having a great impact on the classroom.

Be prepared to be flexible-

Don't wait to change what you are doing for one student if it will help.

In starting small, it was easy to adjust grade checks for each student. As the scale got larger and more students were involved, it was more difficult because variability meant there was more to track and focus on for staff members. Most staff wanted to have a set routine and procedure they would follow each time to ensure consistency and authenticity in the grade checks happening across the building. The continual challenge is to balance consistency with quality support. Do not be afraid to change a routine if it means a student will benefit. We are, after all, here to support students first and foremost.

Share data often-

Keep the conversation alive and data driven.

Each time data was shared, whether it was in a small team meeting or an all staff professional development, the conversation was open to questions and reflections. This opportunity to think deeply about the work requires great trust, but it allowed all staff members the opportunity to engage and to support forward progress. As data was shared, staff were able to make suggestions that better supported students and to step up as leaders of the work.

Key Concepts

List of key vocabulary words used in the chapter

- PDSA cycle
- Empathy Interview

Discussion Questions

- How might you use empathy interviews to better understand your system from the users perspective and to gather actionable information?
- What is the value in sharing data and what is the most effective way to share that data based on desirable outcomes?
- How can you engage colleagues and staff in asking more questions to see the system that currently exists?

Class Activities

1. Empathy Interview Professional Development
2. Student Profile Activity
3. Board Policy Walk Through protocol

Embedding Improvement Science in Principal Leadership Licensure Courses: Program Design

Peterson, D., Carlile, S., Eugenia Olivar, M., & **Thonstad, C.** (2021). Embedding improvement science in principal leadership licensure courses: program designs. In D.T. Spaulding, R. Crow, & B. N. Hinnant-Crawford. Teaching Improvement Science in Educational Leadership: A Pedagogical Guide (pages 103-117). Myers Education Press.

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Thonstad, C.

The following details authors' roles in publishing this paper: Peterson implemented improvement science strategies, analyzed data, drafted, wrote, edited paper, collated and revised the final publication; Carlile-drafted and edited paper, collated and revised the final publication; Olivar-drafted and edited paper; Thonstad-drafted and edited paper.

This chapter has been previously published.

Abstract

In this chapter we'll share how the faculty in the principal licensure program at Portland State University became involved in Improvement Science and the impact of our state's recent revisions in its licensure standards to emphasize improvement. We will share the very tight timeline licensure programs were given to make these changes and our successful strategy for collaborating among the program faculty to complete the redesign work. Of course, any change process includes frustrations and barriers, and we'll also share these in the hopes it will inform future improvement processes. This chapter also includes a curriculum map for the redesigned Principal Administrator Program, including curricular goals and projects in a new course that introduces Improvement Science. Embedded in all Improvement Science efforts in our education administration licensure program is a focus on equity, cultural responsiveness, and inclusion. We close the chapter with the experiences of seated administrators who learned Improvement Science in our licensure programs and find Improvement Science to be an empowering and effective change strategy.

Keywords

Improvement science, equity, school leadership, change leadership, principal supervisor preparation programs, k-12 school leadership

Background

How best to achieve racial equity in education is the subject of intense national, state, and local discussion. Oregon's Department of Education (ODE) has implemented

several strategies to overcome its racist history and resulting educational disparities with specific initiatives aimed at supporting racially and linguistically diverse k-12 students. Initiatives include a focus on migrant education, English learners, youth with immigrant history, Native American education, and African American/Black student education (Oregon Department of Education, Equity Initiatives *retrieved from https://www.oregon.gov/ode/students-and-family/equity/equityinitiatives/Pages/default.aspx).* Oregon officially endorses several strategies for eliminating educational disparities: high expectations, leadership and focus, accountability, professional development, and family and community engagement. Related to leadership, ODE notes

> A successful school leader is a strong educator and communicator with a powerful, clear focus on achieving academic success. Leadership begins with a principal, but it is not limited to the person at the top. At the best schools, leadership is systemically shared by all educators and stakeholders.

The PSU principal preparation faculty believe that improvement science is the best strategy for sharing leadership among all the stakeholders in a school or district and for improving educational outcomes for children of all cultural backgrounds. Further, we believe improvement science is not new or a "fad," rather improvement science "build[s] upon foundational concepts of esteemed educational philosophers John Dewey (1990), Paolo Freire (1993) and Michael Fullan (2011, 2013)" (Peterson and Carlile, 2019, p. 167). We believe that authoritarian solutions such as directives from superintendents, central office leaders, or principals stall or stop improvement efforts by disregarding the

"expertise of our families, students, and teachers and the funds of knowledge they bring to our schools" (p. 169).

In our effort to understand the potential use of improvement science in principal preparation programs, our small team of professors engaged in a two-year process with the support of our dean and chair. The process included us identifying numerous professional development activities that we each chose whether to engage in or not; funding was provided by our usual faculty funds and/or the dean's discretionary funds (A full description of this exploration phase is found in the *Educational Leader's Guide to Improvement Science*, Peterson and Carlile, 2019, pp. 168-175).

Next, we piloted over the course of three years a year-long improvement science project in our principal preparation program. In this pilot, interns learned about IS, engaged in personal improvement projects, reflected on how IS could increase equity, worked within their schools and with their stakeholders to identify a problem of practice, conduct fishbone, driver diagrams, root cause analyses and then lead an equity improvement effort with several Plan Do Study Act cycles. Interns concluded the year with a presentation on their work and the implications for leading for equity. This three-year pilot gave us information about how to adjust our teaching to support intern's use of IS. And while we learned, we also became energized to consider how we could use IS in all our principal preparation courses. Improvement Science is an empowering *improvement* strategy for schools.

Thus, when the state licensing agency completed new rules regarding principal preparation program standards and school administrator standards, we were curious if we

would find reference to Improvement Science as an improvement strategy. We did not. However, throughout the program and administrator standards we found terms and concepts of Improvement Science.

Next, we were curious how we would fund the process of redesigning two programs. The budget crisis among institute of higher education common across the nation was also present in our university. It was no surprise that limited funding was available. Six months after the new rules were passed, our associate dean offered 30 hours of funding to start the redesign work. Within a week we had passed the 30-hour mark with our work. Eight months later we were granted two additional credits of release time to complete the redesign, which were assigned to two of our colleagues. Two other team members volunteered our service, research, publication, and previously earned release time to the project. What began in the summer with three professors initially meeting for 10 hours to craft a plan and process for improving our program became an 8-month redesign process with four team members. A month-long review of our state's Teachers Standards and Practices Commission (TSPC) rules resulted in our clear understanding of the new standards' focus on involving stakeholders, diversity, equity, community partnerships, shared leadership, data, applying research within a context, well-being of the community as well as faculty and staff, and principal licensure candidates engaging in a sustained and supportive clinical practice experience. We would increase the course requirements in the principal program, add additional clinical practice experiences, create new courses, and significantly redesign existing courses.

Our team was experienced in all the new program and administrator standards, including collaborative school improvement processes, a focus on leadership for equity, curriculum planning, assessment and improvement science. However, one area that we believed we could significantly enhance our program was explicitly teaching in our first course how to engage stakeholders, using data and evidence, in improvement efforts. As Carlile et al. (2020) note,

> the growing body of research indicates that curricular redesign improves academic outcomes (Yamada and Bryk, 2016) and that curriculum in gateway courses, aligned with subsequent expectations, significantly influence achievement throughout a program (Mathew and Newman, 2017).

After generating a work plan that was very detailed and reflected the new state licensure rules and standards for administrators, English learners, and best practices for students receiving special education services, we realized that the current prerequisite course "Principles of Educational Research and Data Analysis I" reflected the outdated historical belief that effective school leaders knew how to conduct research. The course included

> Research paradigm; measurement and test characteristics; planning and evaluation; library resources; identifying research problems; planning research; types of research; research designs, central tendency, variability and relationships; sampling, sampling error, and hypothesis testing; crossbreaks; one, two, and multiple group, and multiple independent variable designs; computer applications; information systems.

Our new state standards reflected current research on effective school leaders. Effective school leaders use research and data in their context, with their stakeholders, collecting data, engaging in improvement cycles, to lead improvement efforts. Researchers conduct research; leaders adapt the findings of research to their context and work with their stakeholders to design, measure, and implement improvements. Thus we began designing a program that no longer included the traditional course on conducting research as it was no longer relevant nor effective in preparing effective future leaders. The new program would embed IS in every course and in clinical practice and would reflect the new standards that explicitly stated school leaders should use research for evaluation of teaching and developing the professional capacity of school personnel (TSPC standard 6) and developing a professional community for teachers and staff (TSPC standard 7).

While our team members were very experienced and skilled in navigating the socio-political context in our practitioner roles in k-12 public education, we were less experienced with navigating the socio-political context of higher education, which contributed to obstacles that we'll share later in this chapter: *Lessons Learned.*

Cassandra Thonstad: As an instructional coach in the Newberg School District in the 2015-2016 school year, I was a part of the district-wide Teaching and Learning Council tasked with overseeing many of the aspects of a recently awarded CLASS grant through the Chalkboard Project. Together we learned about a new to us process and way of thinking called "improvement science." We learned how to determine a true problem of practice, establish the many complex contributing factors through a Fishbone Diagram,

how to implement the PDSA cycle, and the cyclical nature of refining the driver diagram based on what we learned.

As a trained math teacher, this process spoke to me and I could immediately see the strategy in the implementation and the opportunities for changes that could lead to lasting improvements and began utilizing the learning in my work as an instructional coach. Teachers appreciated the strategic adjustments and the methodical changes and we began to see that our work was changing practices in the classroom for the better.

When I entered the Initial Administrator Licensure program at Portland State University, the two leading professors were just beginning to identify how to integrate Improvement Science practices in the work already being done. Professor Peterson was very clear with the cohort that she was new to Improvement Science and would learn by doing as suggested in the methodology.

By starting the integration of Improvement Science in a single cohort, the change would start small where we could learn, study, and adjust with an option to scale up in future cohorts or in other programs in the Educational Leadership and Policy Department. Modeling this "learning by doing" mentality and "failing forward" allowed those in the program to join in wherever they were at with their own personal knowledge of Improvement Science and encouraged implementation of Improvement Science in the way it was intended-to learn by doing.

Simple things like hacking our classroom space became a model of the expectation of implementing Improvement Science. Our first class period was spent in a very dark room with no windows, little moving space, and an unfriendly atmosphere with a desire

by all to change locations. The next time we met was in a bright classroom in a school open to allowing future administrators seeking learning opportunities.

Throughout the term, students and staff worked collaboratively to implement Improvement Science, share findings, and challenge the assumptions and biases that emerged. Together we continued to utilize Plan-So-Study-Act cycles with research based improvement ideas to see what would improve our current systems as they currently existed. Through sharing our findings, we improved greater at scale than what we could have done individually, building on each other's learning and spreading the changes across multiple school district systems. When our cohort graduated, we were well equipped to continue learning and strategically changing pieces of our organizational system set up to achieve the results we are already getting.

As we moved forward past the initial year of our preliminary administrative program, Portland State University and school district staff continued to seek opportunities to implement Improvement Science to change current educational practices, moving Improvement Science into the Continuing Administrative Licensure Program and spreading our learning across multiple school districts in Oregon. We may not know what changes will be made based on our work and our learning, but we will continue to learn and grow together by doing!

MariaEugenia Olivar learned Improvement Science in her principal preparation program where we were piloting our curriculum for teaching IS to future principals. The experience influenced and strengthened her conviction that radical changes fragment relational trust and negatively impact the ability of leaders to lead. Rather, she believes that investing in improving our practices in schools through the use of Improvement

Science tools and processes is consistent, sustainable, and real. Improvement Science is tied to students' needs, and the data from PDSA cycles inform our practices as we learn how to improve. Using professional learning communities (PLCs), Olivar learned how to incorporate designed-based thinking in her grade level teams. They analyzed student data and used the data to adjust their pedagogy using a "non-personal, scientific and data-driven perspective." Olivar also used used PDSA cycles for improving student engagement, student oral participation in the partner language (Spanish), consistency in implementation of classroom ritual and routines, family engagement, and program redesign.

During each PDSA cycle, outcome data were studied to determine next steps based on practitioners' reflections and predictions of results and from the data collected. Once new adjustments were taken, another PDSA cycle would ensue. The result of each PDSA cycle informed and guided our coaching cycles, and allowed for us to collect quantitative and qualitative data, through observations and formative assessments. Thus, teams had weekly concrete results to discuss, analyze and adjust in their biweekly PLCs during their grade Level meetings. They then moved on to the next driver or PDSA cycle.

The power of those closest to the change engaging in the PDSA cycles was evident in many grade level meetings, but one particular example stands out. In a second PDSA cycle with a science teacher, we heard about his "aha" moment when the data revealed, for the second time, that it was the inconsistencies with the classroom routines he was establishing that threw students. The inconsistencies created disengagement, resulting in undesired "behavior issues" that kept students from learning. Something as seemingly small and inconsequential as discussing the data that revealed inconsistencies

in his routines sufficed for our colleague to move from being okay with participating in the PDSA cycles, to leading our PLCs and PDSA cycles, to requesting additional collaboration time with our building coach, and starting a book study on Improvement Science with his grade level peers.

The work invested in the identification of problems of practice, from individual teachers perspective, were brought to the table to be collectively discussed and tackled. For example, when we were working on the issue of student engagement during independent literacy centers, one staff member said, “I need someone to observe me because I have authentic materials that I had carefully selected, prepped, and laid out in the centers for my students.” This led us to start the discussion about what applied pedagogy is and what curricular and supplemental materials are in reference to practice. The idea of improvement allows for vulnerability and safety for each member of the team to contribute to the creation of the right conditions for the visualization of one common goal, approached from individual practitioner needs in each of the drivers and smaller attainable objectives that contributed to the resulted academic outcomes in our students.

Improving Science has been a powerful and effective strategy that resulted in applied pedagogy redesign and improved academic outcomes for all students in our K-12 Dual Language Program, and particularly our students of color.

Moving Forward

Thonstad, C., Carlile, S., & Peterson, D. (2021). Moving forward. In D. S. Peterson & S.P. Carlile. Improvement Science: Promoting Equity in Schools (Improvement Science in Education and Beyond) (pages 279-284). Myers Education Press.

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The following details the authors' roles in publishing this paper: Thonstad-drafted, wrote, and edited paper; Carlile-edited and revised final publication; Peterson-edited and revised final publication.

This chapter has been previously published.

We cannot wait to change. We have students in our classrooms and schools who need the change to happen now. Not next semester. Not next year. Our educational systems were not created with equality or equity in mind. And while improving the entire system is our goal, too, we each have to start small. We have to start with in our setting, in each of our classrooms, in each of our schools, improving what is within our sphere of influence and locus of control. As a classroom teacher, I don't have the authority to change the bus schedule, but I can improve what I do once the kids get off the bus. I don't have all the answers, but in community with our students, families, and colleagues, we can work on solutions together. Our belief in using Improvement Science is built upon the foundational concepts of Dewey (1990) who "believed that the aim of education is to further our democracy and that a constructivist education – or meaning making by those closest to the learning-- will best serve that aim" (Peterson & Carlile, 2019, p. 172). We also want to reiterate our support of Freire's (1993) concepts "that freedom is obtained through contextualized action-oriented and collaborative actions that enhance the humanity of individuals and the community" (p. 172).

Throughout history, schools have furthered political and social ideals, harming the most those with the least social capital. As Isabel Wilkerson noted in Caste: The Origins of our Discontent, the US has perpetuated a pervasive system of privileging those at the top of the caste system: those who are white, English speaking, and middle class. As Wilkerson reminds us, those of us with these privileges have a moral duty to speak up and to act when others are treated inequitably. Improvement Science gives us the tools and the processes to act today.

Addressing these societal inequities is a nationwide issue requiring a response from our faith-based organizations, government, education, and community organizations. We each can engage in improvement processes in the areas within our locus of control. Focusing specifically on the efficacy of Improvement Science, Perry, Zambo, and Crow comment, "Practically, improvement science is what educators and organizational leaders do inherently every day; strive to improve their contexts systemically" (Perry, et al., 2020, p.28). The experiences in these chapters amplify the importance of a persistent focus on equity; student, family, and faculty voice; collecting and analyzing disaggregated data; monitoring progress; collaborating with colleagues; and adjusting change ideas based on variability in context.

Persistent Focus on Equity

Educators want to be successful in supporting students. It's in their very nature. With this in mind, we must continue to take a disciplined, systematic approach to the improvements we make to promote equity in our schools. Each of the authors in this book has shared an equity-based, disciplined approach to change describing how teacher leaders address potential obstacles, hurdles, and roadblocks every day in their classrooms. They have solicited the voice of students, families, and teachers to ensure the change they are promoting supports those closest to the issue.

Collecting and Analyzing Disaggregated Data

While grades, test scores, attendance, and referral counts are essential measures to study, they only tell a part of the story. As a classroom teacher reviews their students' test

scores, they know who scored highest and who also struggled to get those scores. They remember that one student hadn't eaten lunch that day or how a different student's family was going through a rough divorce. Each test score also has a student's name, face, and story behind it. This is why qualitative data is so important. The personal story of each student, family, and teacher –and a test score --helps us understand what change ideas could lead to improving learning. Through empathy interviews, observational studies, and surveys, we can better see the system as it currently exists. Ultimately, as identified by Thonstad (2019), "In understanding a problem deeply, it is important to recognize that your system is set up to get exactly the results it is getting" (p.271). Authors Meyer and Bendickson (Chapter 7) and Young (Chapter 5) improved gender equity in literacy when they regularly examined performance data to ensure that their system did not perpetuate inequities. Equity data, empathy interview analyses and PDSA cycles grounded the work of all the authors.

Student, Family, and Faculty Voice

We must partner with our communities and families to determine the best changes idea or ideas to be implemented without taking on too many changes at one time. Peterson & Carlile (2019) agree: "Initiative overload and the current public discourse indicate a propensity to embrace authoritarian solutions that disregard the expertise of our families, student, and teachers and the funds of knowledge they bring to our schools" (p.169). In Chapter 4, Tredway et al include exemplary models of student and family voice. In Chapter 2, Anderson's work shows how to include teacher voice.

Monitoring Progress

Monitoring progress is important. Some authors wrote about monitoring improvement weekly; some monitored data monthly; others quarterly. The main idea is not to wait until the end of the year to examine data and plan for a new change idea in the subsequent year. That is too late for the children in our classrooms and schools this year! In Chapter 6, Barnard showed how the improvement idea was modified after one PDSA cycle.

Collaborating with Colleagues and the Community

When educational leaders do not take the time to grow their teams and focus on the communities within their contexts, intentional changes may be slow or stagnant, remaining in their initial contexts only, where changes happen behind the closed doors of a single teacher's classroom. When working with an Improvement Science team, we see the importance of understanding who is on your team, ensuring a diverse representation within the group, and being aware of possible biases brought to the table. Teams with only teachers lack the awareness of the impact and effect on classified or administrative team members. As Stimson-Clark wrote about in Chapter Eight, including educational assistants in the change process was key. And as Tredway et al. exemplified, without involving students and families and our communities, we do not see the entire picture and what our students bring to school. We need each other, and our work together has to be intentional. As Lencioni (2016) would say, "Teamwork is not a virtue, but rather a choice," and this is a choice we must make every day for the sake of our students (p. 207). Anything we can do, we can do better together.

Be Prepared to Adopt, Adapt, or Abandon Your Change Idea

In the six years we've been teaching Improvement Science in our principal preparation programs, we have not have one failed improvement effort. This is because we know that if the data show the change idea is not working, our teams must adapt or abandon the change idea. We don't wait for six months or a year to analyze the results and determine next steps. Bryk et al. (2015) remind us "the call to innovation is accompanied by an obligation to document what was done, why it was done, and what was learned" (p.156). When we intentionally study the implemented change in context, we gain the opportunity to refine practice and honor that there is variability in every classroom and school, and our improvement strategy must reflect that unique context. As we've told the hundreds of teacher and school leaders we've worked with, "School leaders need to understand how variations in context impact a change they want to make to the system. They must lead change efforts quickly and in collaboration with others" (Carlile & Peterson, 2019, p.197). Leaders also must be ready to support their team in moving through change ideas when the result is not an improvement.

Next Steps: Networked Improvement Communities

Improvement science tells us to start small to implement quickly. When changes are implemented and an improvement occurs, how do we begin to scale that change? Through teamwork and our Networked Improvement Communities (NIC), these changes go from a small scale to system-wide change. Utilizing NICs cannot be done haphazardly, however. Bryk et al. (2015) argue, "when NIC participants come to know,

respect, and trust one another, they are more likely to adopt the innovations of their colleagues and test and refine these innovations in their own contexts" (p.146). Chapter Three includes brilliant examples of NICs that dramatically increased literacy results in a short period of time.

Improving our Schools *Now*

In this book we've shared the experiences of classroom teachers, school leaders, district leaders, students and families who have worked together to improve their schools. They have shared their journey, their data, their processes and outcomes. While it might be difficult to identify where to start, we encourage you to start small, but to start now. You can either find a group of people who also want to improve their practices together with you, or start by yourself in your classroom. One of our teacher leaders started by working with students to reduce theft in the classroom. Within 3 months their thefts were reduced to zero. Another teacher wanted to focus on on-time arrival at class. Within two weeks and testing two change ideas, students began arriving on time, thus inspiring the teacher team to focus on creating common engaging activities for the first five minutes of class. These are the people who inspire us and remind us: We cannot wait to change. We have students in our classrooms and schools who need the change to happen now. Holly Altiero inspires us when she says, "through engaging in IS processes, I am empowered and changed. I will continue to lead improvement efforts to ensure every child in our school succeeds, and I will encourage others to do the same." Every child deserves this commitment.

Disparities in Middle School Discipline: English Learners, Students Receiving Special Education Services, and Boys

Thonstad, C. (2022). Disparities in middle school discipline: English learners, students receiving special education services, and boys. In D. S. Peterson & S. P. Carlile. *Improvement Science as a Tool for School Enhancement: Solutions for Better Educational Outcomes* (pages 101-119). Myers Education Press.

This chapter has been previously published.

In this chapter, the author focuses on the process of implementing improvement science (IS) as a means to reduce gender disparities in student disciplinary referrals. Students at Rural Middle School (RMS), a high-poverty Grades 6–8 school with more than 500 students, have not received the supports to perform at rates similar to the more affluent middle school within the district, as measured by grades, normed formative assessments, and on state tests. The problem of practice explored in this case study is common to many educational institutions: Male students disproportionately receive referrals and lose instructional time due to in-school and out-of-school suspensions. Although the RMS administration, like many schools in the United States, understands the importance of collecting data that include nonbinary students, at the time of this particular improvement work, the state had not yet allowed the option of indicating one's gender as nonbinary.

We applied IS principles, starting with understanding the system as it currently exists, conducting "deep dives" into current discipline data, conducting empathy interviews, and brainstorming many potential change ideas. As a result of this improvement effort, the overall referral count has dropped dramatically, and students are staying in their classrooms able to learn. The team continues to review data and dig into new trends each grading period to serve the ever-changing needs of the students and to improve outcomes for students of all backgrounds.

The Setting

Rural School District (RSD) is a smaller district serving approximately 5,000 K–12 students in 10 schools: six elementary schools, two middle schools, one high school,

and one alternative high school. RSD is situated in a rural community of 22,500 people, with strong industries of wine production and agriculture and is well known for recreational opportunities in and around the area, making tourism a large contributor to the local economy. Two of the elementary schools qualify as Title I schools, and both feed into RMS.

RMS is a Grades 6–8 school and has approximately 500 students who identify as Asian (1%), Black/African American (2%), Hispanic (26%), multiracial (5%), and White (66%). Approximately 15% of the students receive special education services, and 49% applied and qualified as economically disadvantaged. There are 11 languages spoken by the students, and 21% qualify as Ever English learners.

In comparison, the district's other middle school, Close Middle School, is also a Grades 6–8 school that has approximately 600 students whose students identify as Asian (2%), Black/African American (1%), Hispanic (17%), multiracial (4%), and White (76%). Approximately 15% of the students receive special education services, and 39% applied and qualified as economically disadvantaged. There are six languages spoken by the students and 15% qualify as Ever English learners.

RMS is more racially diverse than Close Middle School and has a higher percentage of students receiving special education (SPED) services, English-language learner (ELL) services, and qualifying for free and reduced-price lunch. Perhaps as a reflection of biases against students and families of color, RMS has a reputation for a more challenging environment with student discipline issues and a perceived lack of both family and community support.

Need for Improvement

In the fall of 2017, two new administrators began their tenure at RMS. Both were veteran educators who had served in other roles in the district for over a decade prior to assuming their new positions. The principal had more than 35 years of experience, and the assistant principal had 12; they were replacing two administrators who were moved to other buildings in the same year. These two new leaders were assigned to RMS because the school was not meeting expectations and significant changes needed to be made. These two administrators were ready for the task.

One of the first tasks for the assistant principal was to determine how to welcome back a student who had been expelled the previous year. With little knowledge and understanding of past practices within the building, the assistant principal organized a restorative circle using restorative justice prior to the start of the school year. Staff members present at the time expressed an interest in the process and shared these were not disciplinary procedures they had heard of or seen before. This shift in how we used an antiracist, culturally responsive equity lens to respond to discipline referrals was only the beginning.

As the assistant principal reviewed data from the previous year, she conducted an equity audit and discovered where the school was regarding who was receiving referrals and who experienced resulting disparities for academic achievement: Students of color were disproportionately receiving referrals, and male students were disproportionately being removed from classrooms for detentions, in-school suspensions, and out-of-school suspensions at alarming rates. The need for improvement was clear. Discipline procedures and practices in the building were systems that desperately needed to be

changed. As Thonstad (Peterson, D. S., & Carlile, S. P., 2019) notes, “in understanding a problem deeply, it is important to recognize that your system is set up to get exactly the results it is getting” (p. 271).

The First Year

Seeing the System as a New Building Leader

The assistant principal was deeply familiar with the use of IS and how it could be used to change systems at scale to improve student outcomes. While some administrators may prefer to lead by directive and some teachers may prefer to just be told what to do, IS methods do not reflect this belief. Leaders and teachers thrive when they are involved, included, and their expertise respected. Peterson and Carlile (2019) note: “Although IS does respect the ability of teachers and leaders to understand the complexity of improvement in a particular context, it also places increasing responsibility on teachers and school leaders for reform” (p. 175). Their call to take responsibility for our educational disparities and to take action was heard by the new administrators.

Collecting and Analyzing Data

In the first year, the assistant principal started with asking teachers at an August in-service meeting to predict what the data would show and reviewing the data. The assistant principal asked all staff to make predictions about the following:

- Who receives the most referrals:
    - Female or male?

- 6th or 7th or 8th graders?
- Hispanic or White?

- When are more referrals written?
  - What time of the day?
  - Which day of the week?
  - Which week of the year?

After asking each staff member to individually predict these trends, she started with the first question. When every single hand went up to indicate that the staff believed male students received more referrals than did female students, her comment was "If we can predict it, we can be proactive about it." If staff knew that male students were struggling with behavioral expectations, that was a clear area where work could be done to better support the students. The staff spent time over the next hour reviewing the school board policies around student discipline and equity.

The school board policy for discipline stated that discipline in the district is based on a philosophy designed to produce behavioral changes that will enable students to develop the self-discipline necessary to remain in school and to function successfully in their educational and social environments. This was the groundwork for the steps that were to follow.

Creating an Improvement Team

A newly created improvement team that would focus on discipline included the assistant principal, three licensed staff, one classified staff, an administrative intern, and

the district community liaison. The assistant principal shared the results of the data collection and analysis with the newly created discipline team. In this first meeting, the staff moved through a brainstorming protocol around two key pieces: the purpose of discipline and the ideal outcomes of disciplinary procedures. The following are some of the intentions set by the team when thinking about the purpose of discipline:

- To give feedback
- To help students engage successfully
- Equity in expectations and consequences
- To teach
- To offer/learn new options for handling challenges
- To strengthen relationships among students, staff, and families
- Order and safety
- To allow students to work together with staff and students in a respectful manner
- To guide behavior of staff and students
- Schoolwide discipline to encourage structure, fairness, common behaviors
- All shareholders feel safe in all ways
- To help students to solve the what and why of behavior
- To be aware of shortcomings
- Consistency in staff expectations
- Create change where needed
- To change behavior to help the flow of the classroom
- Plan so stakeholders know expectations

- To remind students of expectations when needed
- A new behavior skill is stated, developed, and honed
- The opportunity for a conversation
- The opportunity for a solution
- Demonstrate that students are loved and cared for
- To teach students appropriate social interaction strategies
- To create an environment conducive to learning

The discipline team also spent time sharing what they thought each stakeholder would need to succeed. This list was brainstormed without including other stakeholders, a temporary breach in IS protocols. When the lack of student and family voice was identified, students and family voices were also included (see Table 4.1)

Table 4.1 Discipline Team Success Brainstorm

What do we need to succeed?

Students

- **Staff touching base with families early on in the year, making connections that are positive to ensure negative phone calls/emails resonate more!!!**
- **Clear expectations**
- **Clear systems of support**
- **Reminders throughout the year about expectations, especially at key times (spring, right before/after breaks)**
- **Advocates—who is my person?**
    - **Advisor? Core teacher?**
- **Empathy**
- **Self-advocacy skills**
- **Peer-conflict resolution skills**

Staff

- **Clear expectations—flow chart/rubric on relationships/discipline**
- **Effective vs. noneffective; counseling time-outs**
- **Safety in asking for assistance**
- **Clear system for what is classroom- vs. office-managed**
- **Collaboration with administration**
    - **The more examples before we start the year the better; fewer what-ifs**
- **Clear systems of support**
    - **Instructional facilitators**
    - **Administrators**
    - **Professional learning**
- **Clear and timely communication from administrators**
    - **Close the loop!**
    - **Follow through**
    - **ALL staff**
- **Empathy**
- **Strategies and professional learning around communicating with families**

Families

- **Clear/timely communication from staff and administrators**
- **Positive feedback early on to help ensure behavior does not derail learning**
- **Clear expectations for students**
- **Caring staff**
- **Kind tone on phone and in person- not talking at/ not telling them how they should have parented**
- **Meet parents/adults where they are**
- **Flexible meeting times—not scheduling meetings so they miss a full day's work when they are hourly**
- **Phone conversations if those work better**
- **Awesome front office secretary is bilingual**
- **Will speed up parent contact with Spanish-speaking families**
- **Empathy**

Administrators

- **Clear/timely communication from staff**
- **Communication with parents**
- **Communication with ALL staff (classified)**
  - **Discipline expectation for students**
  - **Hallway expectations for students**
  - **Schoolwide expectations for students**
  - **Included in meeting that may affect them and/or written information**
- **Empathy**
- **Concerns to be brought to admin about discipline in a productive way**

Change Ideas

Our next step was to have the team review the data and existing policies and procedures around discipline and suggest change ideas. Change ideas included increasing our communication, having a clear set of procedures, students engaging in problem-solving before an office referral, and teachers connecting with families before an office

referral was written. Ideally, we would test one change idea and then adopt, adapt, or abandon the strategy based on whether our strategy resulted in improvement. However, we made a different choice.

The team created a new discipline flow chart that indicated expectations based on student conduct. The goal was to make procedures clear, increase communication, and ensure that each staff member knew their role in support student behavior. It also emphasized the importance of in-classroom supports through which teachers and support staff were building relationships with students daily.

To support students in the classroom, a problem-solving form was created for teachers and staff members to use before sending a student to the office. By allowing students time to pause and reflect on what was happening in the situation, there were opportunities for the student to regulate without having to be removed from the classroom completely. By providing supports for the users closest to the occurrence (teachers, classified support staff), the adults working with the student were able to build deeper relationships with students and problem-solve in ways that showed students they were their advocates.

In addition, a new referral form was created in collaboration with the neighboring middle school to align practices between the two schools. One of the biggest changes made was requiring the staff member who wrote the referral to be the first point of contact at home. The assistant principal knew the key to supporting students in behavioral changes was building relationships with the adults who worked with them the most.

PDSA Cycle 1

In the first 6 weeks of school, the assistant principal tracked the disciplinary conversations she had with students who were sent to the office (see Table 4.2)

Table 4.2 Referral Count First 6 Weeks of School

	Number of Referrals/Total	Percentage
Female	15/84	18
Male	69/84	82
6th Grade	14/85	16.7
7th Grade	24/84	28.6
8th Grade	44/84	52.4

She also noted that students who were Latinx and received SPED services and/or identified as active ELL and/or dual identified for both SPED and ELL were disproportionately receiving failing grades (Ds and Fs; see Table 4.3).

Table 4.3 Referral by Demographics

	Percentage of Student Population	**Percentage of Total Failing Grades**
Total student population	**100**	**20**
Latinx	**26**	**27**
Receive SPED services	**15**	**40**
Active ELL	**21**	**55**
Dual-identified		**69**

The data were based on live grades rather than summative grades that had been finalized at the end of a grading term, but they foretold negative academic outcomes for these students if something did not change quickly.

Seeing the disparities for both grades and discipline caused alarm for the leaders in the building. They knew they needed to analyze what was happening in their school: "Effective problem-solving demands that a premium be placed not just on what needs to be fixed but also analyzing why systems currently work as they do and learning how they might be reformed for the goal of greater efficacy at scale" (Bryk et al., 2015, p. 32). The assistant principal continued to monitor the data, looking for trends with the disciplinary referrals that were written and trying to better see the system as it currently existed. By midyear, the referral data continued to show a similar pattern (see Table 4.4).

Table 4.4 Referrals for Semester 1

	October Percentage	**January Percentage**	**Percentage Change**
Female	**18**	**20.9**	**+2.9**
Male	**82**	**79.1**	**−2.9**
6th Grade	**16.7**	**21.2**	**+4.5**
7th Grade	**28.6**	**32.1**	**+3.5**
8th Grade	**52.4**	**46.7**	**−5.7**

Decision: Adopt, Adapt, or Abandon the Change Ideas

The assistant principal sat down with the team and other administrators to brainstorm what next steps might be. Through the collaboration, the secondary team determined there was a need to

- identify strategies for staff to use that will support discipline work with male students specifically. As a staff, we continued to disproportionately discipline male students compared to female students.
- increase the use of Collaborative Problem Solving (CPS) strategies as those had helped build partnerships among general education teachers, special education teachers, counselors, and administration noting the clear guidelines and boundaries with consistency had improved student behavior across the school.
- improve guidance and professional learning for support staff who struggled with student behavior and who did not utilize CPS strategies. Some staff did this naturally, with or with training, but some struggled with empathy and in making ways to work with students in culturally responsive, individualized ways that ensured success.

PDSA Cycle 2

The changes identified after PDSA Cycle 2 were implemented at RMS in the second semester by the assistant principal with the support of the discipline team. Because the assistant principal supervised many of the classified staff, relationships had already been formed and goals for supporting students were set for the remainder of the year. Classified staff met with the assistant principal regularly and when the team identified students needing additional behavioral supports, the team determined who had

the best relationship with the student; that adult provided structured support proactively and reactively. Breaks were given, safe spaces were offered, and positive behavioral intervention and strategies allowed the team to identify incentives students were willing to work toward.

By the end of the year, the focus on grade-level supports seemed to be working. Although eighth graders were disproportionately receiving referrals early on in the year, the referral count matched the grade-level demographics, within a few percentage points, at the end of their first year (see Table 4.5).

Table 4.5 Referrals for End of Year

	October	January	October–January Difference	June	October–June Difference
Female	**18%**	**20.90%**	**+2.9%**	**17.1%**	**−0.9%**
Male	**82%**	**79.10%**	**−2.9%**	**82.9%**	**0.9%**
6th Grade	**16.7%**	**21.20%**	**+4.5%**	**28.8%**	**12.1%**
7th Grade	**28.6%**	**32.10%**	**+3.5%**	**35.4%**	**6.8%**
8th Grade	**52.4%**	**46.70%**	**−5.7%**	**35.8%**	**−16.6%**

Seeing the System: What Worked and What Did Not Work

Although we improved our disproportionate referral of eighth-grade students, we did not improve our disproportionate referrals for boys. Data about discipline outcomes for students based on racial demographics had not been closely studied over the full year,

and end-of-year disaggregation of data by race was not completed, a serious mistake in our equity work.

At the end of the year, we conducted a postmortem and determined that classrooms were not set up as a system conducive to support students with an active learning style. We still had much to learn about trauma-informed practices for staff. The responses to male behaviors were reactive and not proactive. Male students continued to be disproportionately written up for referrals at a rate of nearly nine to one and specific male students were receiving a significant number of referrals as staff "documented" behavior concerns:

- five male students had over 30 referrals each
- six male students had between 20 and 29 referrals each
- eight male students had between 10 and 19 referrals each
- one female had 11 referrals

These 20 students received 424 of the 948 overall referrals, or 44.73%. The demographics of these students included Latinx (40%), African American/Black (5%), and White (55%).

There were also inconsistent procedures and staff support:

- five different secretaries input referrals into the online tracking system
- data input did not occur in a timely fashion
- the discipline committee and data review process did not occur throughout the year to identify formative and proactive steps

- nearly one third of licensed staff were new to the building

PDSA Cycle 3

Looking back on the previous year, the assistant principal identified what she could do to move the work forward. She adjusted the discipline team meeting schedule to mirror the attendance team schedule, meeting biweekly. She identified a timeline for making student schedule changes before the end of the first quarter to better match student learning with teachers' teaching style. She scheduled break times for students whose past behavior indicated that they needed this time to catch their breath, regulate, or just pause for a few minutes. She scheduled times for increasing family partnerships. She used summer months to increase training in trauma-informed practices; these trained staff members would become members of the trauma team and discipline team. She increased training and support for the attendance/discipline secretary to ensure data were entered and reports prepared prior to regularly scheduled team meetings. Students who needed a better balance of activities received personalized schedules, including walk–talk time with adults with whom they connected and felt safe. She recommitted to her antiracist, culturally responsive leadership beliefs to ensure data were reviewed regularly by gender, ethnicity/race, and grade level. Meetings were scheduled with families for any student receiving three referrals. Teacher training on alternatives to referrals continued. The team met regularly to review data and adjust their change ideas to support student behavior. At the end of the year, the data revealed that boys continued to be disproportionately referred for discipline, and Latinx students were disproportionately referred for

discipline. Despite these changes, we had made no significant improvement (see Table 4.6).

Table 4.6 Referrals for End of Year by Demographics

	November	February	Difference November–February	June	Difference November–June
Female	**15.98%**	**12.78%**	**−3.20%**	**12.13%**	**−3.85%**
Male	**84.02%**	**87.22%**	**3.20%**	**87.87%**	**3.85%**
6th Grade	**38.36%**	**34.20%**	**−4.16%**	**36.29%**	**−2.07%**
7th Grade	**18.26%**	**22.11%**	**3.84%**	**20.04%**	**1.78%**
8th Grade	**43.38%**	**43.70%**	**0.32%**	**43.67%**	**0.29%**
Latinx 17% of total population	**39.27%**	**38.77%**	**-0.50%**	**36.50%**	**−2.77%**
White 76% of total population	**56.62%**	**57.72%**	**1.10%**	**57.17%**	**0.55%**

Before heading into the next year, the assistant principal engaged in empathy interviews with students with multiple referrals and students who had not received a referral in 3 years at RMS. She also sought out staff members who wrote the most and the least number of referrals for the year to better understand their experiences in the classroom. Through these empathy interviews, teachers, students, and families shared what supports were improving students' behavior and what was keeping them in the classroom learning. The major theme in each of the conversations was the importance of relationships.

PDSA Cycle 4

A key learning was that we should have conducted empathy interviews with our students of color during our first PDSA cycle. Empathy interviews revealed that culturally responsive relationships were making the difference for our students of color and for the Latinx students specifically. By identifying the support staff who had the best relationships with students and their families before the year began, plans were proactively placed for push-in supports and scheduled connections to foster the continued connections.

There were also unplanned beneficial outcomes from the conversations after PDSA Cycle 3. Staff members started asking each other about their practices around writing students up for behavioral infractions. Professional learning communities by grade and content area asked for supports specific to the issues they were experiencing in their classrooms and teachers experienced what Perry et al. (2020) notice: "As a working professional, you want your work to make a difference, to spread, and to be useful to others and yourself" (p. 23). The initial conversations with a few students and staff had created a ripple effect. Now disciplinary practices were part of ongoing conversations, not just relegated to once-a-year or even to the disciplinary team meetings.

Additionally, time to collaborate with the discipline team allowed the staff to make adjustments to the referral form and define discipline terms for consistency and alignment to the trauma-informed care and culturally responsive practices. The team also created and led professional development around best practices for classroom management with staff to target specific behavioral needs and lagging skills for students. These professional

development opportunities were geared toward the behaviors being documented the most consistently across the larger system.

During the empathy interviews, we noticed another variation in performance: who was writing the referrals. Reflecting on these data, the assistant principal met with multiple staff members to identify what worked and when so the staff could adapt at scale what was being successful within this specific context. Through partnerships with the counselors and administration where specific behavior concerns persisted, staff learned and grew. Identified staff received Child Protective Services training along with training in trauma-informed care to support their own growth and to grow the leadership of key staff in the building.

Looking to the system, support staff schedules were solidified and communicated to all staff, with intentionality around which classified staff were assigned to specific classrooms based on both student need and licensed staff strengths. This opportunity to build stronger relationships allowed the classified staff to better support the behavior of the students they served. Knowing our students more deeply allowed the team to write behavior plans and put behavior contracts in place earlier in the year, proactively seeking supports that would keep students in the classroom and support teaching staff. The team also changed the schedules in first semester for students who were struggling behaviorally, with counselors and support staff focusing deeply on building relationships with new sixth graders.

RMS also established the Wellness Space with planned breaks, sensory options, movement breaks, and quiet activities to meet student needs. We created a consistent staffing schedule so students knew who they would see in our two offices and who was

available to support them. Students would seek out specific adults they had built relationships with, including the secretaries, custodians, and kitchen staff.

At the end of the first quarter, each grade level identified two or three students who were struggling the most behaviorally. Once identified, the entire staff was made aware who the students were, regardless of whether the student was in their classes or not. Throughout the building, staff sought to give positive affirmation and behavioral support every change they got. This schoolwide "dosing" of positivity saw much lower referral rates as a result. The referral count decreased more than 40%. Grade-level referrals were within a few percentage points of their population proportion as well. Most important, students of color were receiving referrals at a rate that was proportional to their enrollment. The focus on supporting students through culturally responsive relationships was reducing the referral counts and addressing our equity goals.

PDSA Cycle 5

The discipline team met again in February 2020 to review these data. As a team, they made predictions using a discipline prediction tool.

Working with partners, each team reviewed the discipline data presented in different ways, including data disaggregated by special population, comparing the 2018–2019 and 2019–2020 school years, and considering students with multiple referrals and by types of infractions. The most significant conversations came from reviewing the data disaggregated by gender, race/ethnicity, and receiving services for ELL or SPED (see Table 4.7).

Table 4.7 Referrals for End of Second Year by Demographics

	Referral	RMS Population	Difference
Female	**24.62%**	**50.28%**	**−25.66%**
Male	**75.38%**	**49.53%**	**25.85%**
6th Grade	**36.92%**	**36.10%**	**0.82%**
7th Grade	**29.23%**	**35.14%**	**−5.91%**
8th Grade	**33.85%**	**28.76%**	**5.09%**
Latinx 17% of total population	**29.23%**	**27.22%**	**2.01%**
White 76% of total population	**60.77%**	**65.25%**	**−4.48%**
SPED 15% of total population	**17.69%**	**12.90%**	**4.79%**
TAG 5%	**2.31%**	**4.86%**	**−2.55%**
ELL 21% of total population	**6.15%**	**5.05%**	**1.10%**
Monitored 18%	**12.31%**	**9.53%**	**2.78%**

The team recognized that the changes in the first semester had significantly reduced the number of referrals overall but had the greatest impact on reducing referrals for male students. All other special population referral counts were within about 5% of the population proportion.

Lessons Learned

Although we decreased disparities in our third year, it was clear that it took too long to address racial disparities and there was still more to do. Bryk (2020) contends that

> improvement requires believing strongly in what you are trying to accomplish and building a community that advances agency for these changes. But simultaneous with that, improvement also entails challenging what you are doing and questioning where you may be coming up short. (p. 98)

In our case, we needed to focus on culturally responsive teaching practices as well as other systems issues. The team understood that and identified a few areas to focus their energy for the second semester:

- reviewing referral language to determine biases for disciplining Latinx and male behaviors
- finding ways to proactively support monitored students who had been transitioned out as active ELL supports
- teaming with SPED teachers to identify proactive supports for students receiving three or more referrals that had also been identified as needing SPED services
- reviewing staff data to see who was or was not writing disciplinary referrals to identify potential biases

The team recognized barriers to greater improvement were

- traditional classroom settings and instructional decisions that have not adjusted to meet the needs of our changing demographics and student needs, are not culturally responsive, and result in racial and ethnic disparities

- inconsistent classroom and hallway expectations from all staff
- work requests for students in in-school suspension or out-of-school suspension were not being met
- the large proportion of new staff, both new to teaching and new to RMS; changing staff at RMS makes consistency difficult, with 60% of our licensed staff at RMS having been at the school for less than 3 years

Pausing the Work During COVID-19

As the second semester began, the team was not able to continue their work. Schools were shut down with the COVID-19 global pandemic. Although the classroom moved to virtual screens, the discipline team committed to continuing their work when students returned to the building. There is still more work to do, particularly regarding antiracist and culturally responsive teaching practices (Gay, 2010), but the conversations started through exploring data from different perspectives and stakeholders allowed proactive supports for behavioral concerns to be implemented. As Bryk et al. (2015) explain, "harnessing multiple forms of expertise, so that they joined together as something considerably more than a sum of random parts, is essential for meaningful change" (p. 140). Moving forward, staff will continue to use culturally responsive practices, trauma-informed practices, collaborative problem-solving, and relationship-focused tactics to support all students to achieve the goal of being both academically and socially successful in our school.

Discussion Questions

1. How might you use empathy interviews to better understand the experience of students and families from all backgrounds and to gather actionable information as you investigate your system and biases within your system?
2. How do you create intentional teams of stakeholders to value multiple perspectives in analyzing the system as it currently exists and understanding who the system advantages and disadvantages?
3. Where are change ideas improving the system, and where are change ideas stagnating or worsening outcomes for students, particularly students of color and other historically underserved populations?

Concluding Chapter

This electronic dissertation, which was approved on June 6, 2022, by my dissertation proposal committee, includes four papers:

- **Thonstad, C.** (2019). Growth and grading: Overcoming "grades don't matter" in middle school. In R. Crow, B. N. Hinnant-Crawford, & D. T. Spaulding. *The educational leader's guide to improvement science: Data, design and cases for reflection* (pages 257-273). Myers Education Press.
- Peterson, D., Carlile, S., Eugenia Olivar, M., & **Thonstad, C.** (2021). Embedding improvement science in principal leadership licensure courses: program designs. In D.T. Spaulding, R. Crow, & B. N. Hinnant-Crawford. Teaching Improvement Science in Educational Leadership: A Pedagogical Guide (pages 103-117). Myers Education Press.
- **Thonstad, C.**, Carlile, S., & Peterson, D. (2021). Moving forward. In D. S. Peterson & S.P. Carlile. Improvement Science: Promoting Equity in Schools (Improvement Science in Education and Beyond) (pages 279-284). Myers Education Press.
- **Thonstad, C.** (2022). Disparities in middle school discipline: English learners, students receiving special education services, and boys. In D. S. Peterson & S. P. Carlile. *Improvement Science as a Tool for School Enhancement: Solutions for Better Educational Outcomes* (pages 101-119). Myers Education Press.

This chapter links these papers together with the common theme of using Improvement Science concepts as a tool for leading school improvement changes.

In the introductory chapter, I wrote, “collaboration is key to ensuring equitable outcomes for all students, and by using the principles of Improvement Science, we can make changes in disciplined ways and work towards desired outcomes that improve our system.” Over the last decade, I have applied change leadership theories to my work to improve outcomes for students through increasing collaboration across classifications of faculty and staff within the educational system. In the chapter titled *Growth and Grading (*Thonstad*,* 2019), I wrote, “Don’t wait to change what you are doing for one student if it will help” (p.272). This sense of urgency has guided me towards the Improvement Science principle of starting small to scale quickly. In the chapter titled *Embedding Improvement Science in Principal Leadership Licensure Courses* (Peterson, Carlile, Olivar & Thonstad, 2021), we contended that “any change process includes frustrations and barriers” (p. 103); being proactive in change management has been vital during change implementations in my role as a high school principal. In the chapter titled *Moving Forward* (Thonstad, Carlile, & Peterson, 2021), we shared, “Our educational systems were not created with equality or equity in mind. And while improving the entire system is our goal, too, we each have to start small” (p. 279). This focus on starting small is essential so that implemented changes can be tested before they become full-scale disasters or history lessons of changes set aside for the “next big thing.” In the chapter titled *Disparities of Middle School Discipline: English Learners, Students Receiving Special Education Services, and Boys* (Thonstad,2022), I emphasized that “by providing supports for those closest to the occurrence (teachers, classified support staff), the adults working with the student were able to build deeper relationships with students and problem-solve in ways that showed students they were their advocates” (p.108). Ensuring

radical support for staff was essential as we have embarked on our local and system changes so change fatigue and staff burnout did not hinder our progress towards improved outcomes. As I have continued the journey in administrative leadership, using the tools and concepts of Improvement Science, and specifically cross-classification collaboration, continue to be the key to improving outcomes for students.

As a high school teacher for over 12 years, I observed first-hand what leaders should or should not do, what helped me and other teachers thrive, and what failed every time. Leaders making promises they couldn't or didn't keep, implementing change ideas without explicitly naming the why or implementing radical support for those closest to the work, or avoiding difficult conversations and allowing bad behavior of adults to damage the culture of the school and more importantly, hinder the education and experiences of the students. Those were leadership traits that were non-starters for me as a teacher. Now that I'm in my first year as the principal of a new school, I strive to be the leader I wanted and needed in order to have positive outcomes for students. But the one leadership trait I'm finding the hardest is how to lead change efforts that will result in system-wide improvement - not in five years, two years, or even one year—but from my first day on the job.

It's easy to "wait, listen, and see." Taking action now is hard - but our students are counting on us to see the problem and make changes that just may save their lives. Studying school safety protocols for a year makes no sense when we know there are regular threats of violence in our schools. After just a few short weeks on the job, I knew that if I took five years to lead systems changes that helped students graduate on time with concrete plans for what is next in their lives, hundreds of seniors who needed me to

lead, now, might end up unemployed, unskilled- or worse yet, in prison –and unable to thrive. Goodwin and Davis (2021) wrote about the role of transactional leadership: "setting expectations, defining roles, and implementing plans well." And they encouraged leaders to create a culture of "can-do optimism, trust, and self-reflection" (Research Matters: What Kind of Leader are You?) So, what strategies have helped me lead systemic change efforts in my first weeks as a first-year high school principal?

Leading as a First Year Principal: When Change cannot Wait

I knew that leading a major change effort within weeks of starting my new job as a high school principal could potentially be disastrous. "Take a year to figure out the culture." "Don't make any changes your first year." We've all heard this advice. But it was clear that at Central High School, we needed to do something different. With 51% of students off track to graduate, we need to get more students engaged in learning and walking across the stage to receive their diplomas.

I was thrilled when three weeks into our newly-implemented project-based learning model, a student beamed while telling me, "I had given up on graduating and was ready to drop out. This new way of learning and our teachers give me hope that I am not already a failure." He wasn't the only one - teachers are already reporting more engaged students, better attendance, and a more positive energy and culture. One veteran staff member told me, "I can see a huge shift in the students. The structure, consistency, and positive supports are noticeable." While my goal is systems change that improves the learning for every student, if even one student decided three weeks into the school year to focus on their learning and is able to successfully complete the coursework and

requirements to walk across our graduation stage, then we have, indeed, succeeded. So while it is safest to take our time as leaders and not make any changes in our first year, I believe there are ways to make changes sooner and faster – while increasing student engagement and creating conditions where teachers are excited to teach. I want to share my key leadership strategies, hoping that what works for me in my context might be adapted and adopted to work for other first-year principals.

Be clear about who you are and who you are not.

Starting on day one, I was clear about who I was as their new leader, starting in the interview process and continuing throughout the first phases of my new role. I lead as an instructional coach with firm accountability and radical support. With the interview team and my new staff, I shared my "why" for project-based learning - An imminent need to educate students differently because the 1920's model that still exists in our school buildings continues only to serve some of the students attending. My own personal connection to a need for cross-content, hands-on learning began with my journey through high school, where I was often overlooked and struggled without understanding how my learning applied beyond the classroom.

Be clear about your expectations of faculty and what they can expect from you.

I named the expectations staff had expressed concerns, fears, or hopes for making our school a place staff and students wanted to be, ensuring our spaces were physically, emotionally, and socially safe, and that all are learning and learning is for all. I told the staff I would use data as a tool rather than a weapon, sharing examples of how this would

look and what support would be offered. By acknowledging and validating their fear of change, lack of support, and uncertainty, I knew I could support effective change. Brené Brown (2019) asserts, "Leaders must either invest a reasonable amount of time attending to fears and feelings or squander an unreasonable amount of time trying to manage ineffective and unproductive behavior" (p.70). In being explicit in my expectations and support, the staff understood the framework for our work collectively as a team, and through acting in alignment with these over the first months as a leader, I was working to gain trust.

Don't wait to change.

Leaders are sometimes told to sit and wait to make changes in the first weeks, months, or even years of our new role so that we might learn and understand the system better. The challenge is we have students in our classes here and now, and the sense of urgency must drive our system to change faster than we are assured of success. When leaders are specifically chosen to implement change, the challenge lies in navigating listening, learning while also implementing the change, being mindful of the culture, considering change management concepts, and keeping the bigger picture of managing the change through the full school year. Soliciting input from staff has been essential. Our staff has had a voice and choice in creating the projects they would lead and the teaching teams for those projects. As a leader, I trust their work in aligning standards to class projects and ensuring we are continually measuring outcomes for students based on our proficiency scale. This has allowed our changes to scale quickly, driven by the passion and excitement of the staff.

Explore the Change Together.

The first big challenge was to be explicit and clear about what the change was and what the change would look like. The spring before we implemented project-based learning, I met with the licensed and classified staff, to identify what the change might mean to them in their role. As Hitatt (2006) said

> This process of meeting with employees as a group and as individuals also helps correct misinformation that may be present in the background conversation. Background conversation surrounding change is powerful and difficult to control (p.70).

In meeting with bigger and smaller groups of staff, in addition to meeting with staff individually, leaders can help shape the background conversations to support the change and encourage forward momentum. I included the office manager, secretary, campus monitor, educational assistants, counselor, and teachers in summer professional development so all staff interacting with students shaped and understood the change being made and could both name and support the change. This move was intentional so that when families call the front office, anyone answering the phone can speak about what is being done in classrooms and how it connects to improved student outcomes for our kids. If students struggle with regular attendance, our support staff can help motivate students by sharing what we are doing for them to improve their school experience, and we can learn from their feedback, starting with a long-term project that started on the first day of school, "Designing the Ideal School" for all students. We sought their input on

what the school year would look like - something every school leader should consider (Milko, 2021; Tredway et al., 2021; Waters, 2022).

In addition, before staff left for the summer, prior to officially starting as the new principal, I conducted empathy interviews (pp. 1-8, Peterson and Carlile, 2021) with individual staff members, asking the same three questions to each:

1. What do you want me to know about you?
2. What do you want me to know about the school?
3. What do you need to be successful?

Through these conversations, several themes came to light that were impacting the culture and mindset of the humans within our system; specifically, the lack of a common gathering space for staff to connect, the collective recognition of the student clientele an alternative school serves, and a "renting" mindset over an "owning" mindset for the overall space in general. Because the school district was renting the building we used, staff felt confined and restricted in making changes, resulting in a lack of ownership in how our space was impacting the overall culture. In shifting a few spaces in the building, we were able to utilize the smallest classroom and make changes over the summer to create a staff lounge where we painted walls and hung intentionally selected artwork, repurposed a large conference table to be a communal dining table for staff, and gathered unused items from storage spaces and new items as needed for a staff coffee bar. When staff returned in August, we started with acknowledging the themes from the empathy interviews and our role in changing perspectives on who we are and the students we serve. We toured the new staff lounge and committed to being owners of our space, our students, and the year.

Name the Why.

We have heard it before; the "why" matters most. Kotter (2017) emphasizes, "All too often people and organizations don't see the need for change. They don't quickly identify what to do, or successfully make it happen, or make it stick" (p.1). Without understanding the why and the need for the change, the path forward isn't clear for those closest to the work trying to implement the change in practice. Knowing and believing in the why breeds passion and connection to the work and each other. Morgen et al. (2017) noted, "Building a team can be difficult because everything depends, of course, on the people who make up the team - we're all so different. Our life experiences vary greatly, we have competing needs and priorities, and our agendas are often misaligned, all of which can complicate the team-building process and make our desire for community feel out of reach. But this doesn't mean that teamwork isn't achievable" (p.121). In fact, it is the varying life experiences that connect us to the common why and advance our work towards improved outcomes for all students. The staff members at our school come from different backgrounds, experiences, and walks of life, but each one also believes adamantly in the need for educating students in different ways so that every student can succeed. When they know a change is being implemented to help reach that goal, they know the why.

Find quick wins.

Another challenge for leaders implementing change is building momentum from the beginning to spur better outcomes for students. Large-scale changes can take months

or years and hundreds of thousands of dollars before shifts or improvements are seen in measurable ways- or we realize the change is a total failure- which often holds leaders back from even starting improvement efforts. But leaders have the opportunity to continue the forward movement of change by thinking on a smaller scale. Grieser et al. (2019) advocate the importance of making small and simple changes now: "If you see something that could be easily changed, you should change it now. This allows you to capitalize on quick wins to build momentum" (p.160). As leaders, we are responsible for creating a culture of care, learning, and innovation. Following Walker and Soule's (2017) concept of "framing situations in terms that stir emotion and incite action" (paragraph 14). I shared out small wins, got staff to observe each other to see the change in action, and created moments that called for celebration. This fed and fueled the change efforts being made and spurred the movement on.

Empower your people.

Continuing the theme from the empathy interviews of renting versus owning our space, it quickly became clear school supplies were hoarded in various storage spaces, boxes from a move two years prior had never been unpacked or even opened, and while space was not particularly limited, furniture and clutter got in the way of creating welcoming spaces. The two main office staff were set to support summer school and would be in the building during that time. They were given the freedom to determine what was truly necessary for our front office and what furniture or files could be moved to different locations or purged. This was their space, and they were responsible for the first impressions of all who came to our building. When staff returned in the fall, the front

office transformation was evident - half the furniture had been removed, a school spirit swag wall had been created, and a multi-purpose seating area had been staged to allow visitors to sit, complete paperwork, or wait as needed. By giving ownership to the two people responsible for staffing the office, they felt empowered to make changes to make the space both efficient and welcoming.

Changing to project-based learning and staff owning their spaces is just the beginning of empowering my staff. They are creating their own projects based on student interests and aligning standards to allow our youth to engage in learning that is real and relevant to them. Instead of reading pages 18-42 in their science or math books, staff are developing projects such as "Life in the Era of the Megafire" or "Get Smart with Money." Staff are collaborating across classifications of certified and licensed to support students with academics, basic food and clothing needs, social-emotional learning, and post-high school planning. We now meet with students daily, have partnered with community organizations to build a well-stocked resource closet, provide on-site counseling, and work one-on-one with students to conduct transcript reviews. As Bryk (2020) emphasizes, our staff "believe in the importance of what they are trying to accomplish, yet constantly question whether they are doing the right work in the right ways" so that we improve outcomes for all students (p.98).

Implementing change ideas through Improvement Science requires us to think about how to test small change ideas, then scale the change as we see the desired outcomes become a reality. As I wrote in Thonstad (2021), "We have to start in our setting, in each of our classrooms, in each of our schools, and proving what is within our sphere of influence and locus of control" (p. 279).

Celebrate Failing Forward.

Bryk (2020) talks about "failing forward" and creating the conditions for innovation - and failure- but how important it is to learn while innovating. Not all change will be successful, and along the path of a programmatic or system change, there will likely be missteps or failures. Finding ways to continue growth momentum by acknowledging these pitfalls and continuing to take steps towards the overall aim and goal of your team is essential. This might be the work of your team, but Kotter (2017) shares, "It often starts with only one person not looking away or waiting for something to happen but seizing opportunities to act where others see problems, fault or threat" (p.158). For example, in my new school, we were planning for our shift to project-based learning, so we started with making team agreements for grading, identifying weekly themes, and setting student expectations. Hours were dedicated to the programmatic change and to the implementation of project-based learning to improve student outcomes, yet there were still challenges. We came back to the drawing board to address students struggling with attendance, staff who were unsure of the best co-teaching models in our new system, and communication with those outside our building who still didn't "get it." However, we celebrated the things that went well and the things that we had to improve because we knew our system was perfectly aligned to get the results we were getting - a 49% on-time graduation rate and a disproportionate number of our students furthest from opportunity, those experiencing home insecurity, students of color, and male students, not crossing the stage at the end of their senior year. "The demand on you is this: once you see the world as it is, or what it is, you must act" (p.60, Holiday, 2015). Our call to

change was both individual and collective, but it was the urgency to improve that spurred us on. Our students deserve better than stagnant, and we are committed to change.

Our entire faculty and staff are now working to shift from a traditional seven-period school day to a complete project-based learning model — at an alternative high school, changing the structure of the school day and master schedule, we are also visioning and establishing cross-content collaborative teams, providing professional development for staff, navigating policies and procedures, teaming with in-district traditional comprehensive high schools, and figuring out our message to students and families. When considering the role, the change to project-based learning had been established through committee work long before I joined the organization, and implementing the shift was a clear responsibility for the leader chosen as principal of this school. So when I was named as the new principal in the spring, I knew I had little time to waste and a responsibility to be both the sponsor and champion for project-based learning.

While our journey to this transition has only just begun, the changes in the culture, attendance, and engagement are clear: students and staff are ready to work together by sharing their passions and knowledge. Classes and content are merged in ways that make learning relevant, applicable, and accessible for all our students. And our staff collaborating across classifications is allowing us to better know our students by name, strength, and need and to do something about it. This is one of many steps towards improving student outcomes, and we are on the journey together.

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