

EFFECTIVE FIRST GRADE LITERACY TEACHING TEAMS

A UTAH LEADING THROUGH EFFECTIVE, ACTIONABLE, AND DYNAMIC EDUCATION

INNOVATIVE PRACTICE REPORT



ULEAD
EDUCATION



BYU - PUBLIC SCHOOL
PARTNERSHIP

ABOUT THIS REPORT

Utah Leading through Effective, Actionable, and Dynamic (ULEAD) Education was created to find, research, and highlight proven practices in Utah schools for replication statewide. ULEAD partners with practitioners, researchers, and education organizations to develop and curate resources, foster collaboration, and drive systemic change for improved student outcomes. The ULEAD Clearinghouse is a growing repository of innovative, effective, and efficient practice resources and tools to support educators.

The ULEAD Steering Committee, composed of current Utah educators and stakeholders, meets quarterly to inform the focus priorities that ULEAD will research. ULEAD uses data to find positive outliers in each focus area and create reports, such as this one, illuminating the practices and policies that lead to positive outcomes. At the time of this report, these priorities include:

Student Attendance, Educator Retention and Job Satisfaction, Academic Achievement through Strategic Engagement through Technology, and Academic Success through Social Emotional Supports Grounded in Academic Classroom Practice, with an emphasis on middle grade mathematics and multilingual learner achievement.

This report addresses effective teaching strategies among outlier first grade teaching teams. ULEAD collaborates with Institutes of Higher Education and education practitioners to develop Innovative Practice Reports. This report was developed in partnership with the Brigham Young University Public School Partnership Professional Development Coordinating Council (PDCC). For more about the PDCC, please see Appendix A.

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This report is made possible by the collective expertise and contributions of the PDCC research team members.

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September 2024

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Collective efficacy is “a group’s shared belief in the conjoint capabilities to organize and execute the courses of action required to produce given levels of attainment.”

Albert Bandura



EXECUTIVE SUMMARY

Four outlier teacher teams excelling in first grade literacy were interviewed to understand their practices contributing to grade-level success while implementing the Science of Reading.

Park View Elementary School Nebo School District

Doreen Barney, teacher
Lynne Lowe, instructional coach
Natalie Mellen, teacher
Shanna Walker, principal

Springside Elementary School Alpine School District

Kim Beuchert, teacher
Brooke Downs, teacher
Tami Galbraith, teacher
Gary Gibb, principal
Lisa Hatch, plc coach
Cassidy Jex, teacher
Kaylynn Martin, teacher
Lindsay Rowland, assistant principal

Westland Elementary School Jordan School District

Olena Bradford, instructional coach
Laurie Goodsell, principal
Michelle Lovell, literacy consultant
Kristy Medina, teacher
Rebecca Schaefer, teacher
Michelle Searle, teacher
Celeste Teeples, teacher

Westridge Elementary School Provo School District

Laurel Dean Karlsven, teacher
Megan Clark, instructional coach
Jennifer Frame, teacher
Kim Hawkins, principal
Jennifer Maffei, teacher

Discourse communities among diverse teacher teams, which draw on each other's expertise to enhance teaching and learning, are one effective teacher learning structure (Putnam & Borko, 2000). Leaders in the Brigham Young University Professional Development Coordinating Council (PDCC) conducted semi-structured group interviews with successful first-grade teacher teams that demonstrated student literacy growth and achievement after implementing Science of Reading practices. PDCC members aimed to identify common practices in these discourse communities that contributed to team success, with the goal of replicating them among other early literacy teams. Three core practices common among the teams include:

- Consistent Use of Data to Inform Instruction
- High Team Efficacy and Collaboration
- Student Goal Setting and Monitoring

Additional supportive structures contributing to the success of teams included access to high-quality instructional materials, straightforward access to data, instructional coaching support, professional learning, and professional learning communities. The teachers also employed all five of Utah's High Leverage Teaching Practices in their work.

Each team operated within a supportive professional workplace where the team culture contributed to their successful outcomes and sense of self-efficacy. As one teacher expressed, **"What we do matters, and we can make it matter."** A limitation to replication is that culture is idiosyncratic and difficult to systematize.

Teachers can be supported with professional learning that models data analysis, instructional planning decisions in response to data, classroom lessons, and lesson debriefs. Both formal and informal collaboration time contribute to teacher success. For replication to be successful, significant time should be invested in developing collective teacher efficacy.

PARTICIPANT IDENTIFICATION

The teams interviewed in this study were selected through a systematic process. Outlier schools in literacy were identified from an initial sample comprising all first-grade teams in Utah that administered Acadience. From that list, first grade teams within the Professional Development Coordinating Council's representative districts who met outlier criteria in literacy were invited to participate. The identification of outlier teams was completed by applying the following search parameters:

Team size, >1 Teacher

Team achievement helps account for personal characteristic differences among teachers and may indicate an established system or replicable practices that are achievable across classrooms.

Team Alignment

The variation in achievement among teachers on a team was limited to ensure that results represented the success of the entire team, rather than being attributable to a single highly successful teacher.

Grade level, Grade 1

First grade is the year when school-age children must be enrolled full-time, and first grade reading is a strong predictor of later learning outcomes.

Subject Area, Reading

Beginning in Fall 2022, Utah teachers participated in LETRS (Language Essential for Teachers of

Reading and Spelling) training to incorporate research-based practices from the Science of Reading into their classrooms. First-grade classrooms showing achievement and growth in these areas are presumed to have successfully implemented concepts from the Science of Reading.

Assessment, Acadience

Acadience is a benchmark assessment administered three times annually in Utah to students in grades K-6, and it is the only standardized reading assessment administered statewide in Utah for first grade.

Outcome Measure, Teacher Mean Student Proficiency

Benchmarks are criterion-referenced target scores that represent adequate reading skill for a particular grade and time of year. They indicate a level of skill at which students are likely to score above the 40th percentile on any high-quality reading assessment and achieve the next reading benchmark or outcome. A student who scores At Benchmark or Above Benchmark is considered proficient. For a team to qualify for investigation, it needed at least 70% of its students to achieve proficiency on the 2023 end-of-year Acadience assessment.

Outcome Measure, Teacher Median Student Growth Percentage

A student growth percentile (SGP) describes a student's growth compared to their academic peers, who are students with similar prior test

scores. SGPs allow us to compare students at different levels, and they demonstrate a student's growth and academic progress even if the student is not yet proficient. For a team to qualify for inclusion, it needed to demonstrate growth in the 60th percentile or higher on the 2023 end-of-year Acadience assessment.

Outcome Measure, Percentage Change in Proficiency

For a team to qualify for inclusion, it needed to demonstrate at least a 10% increase in the percentage of students achieving proficiency when comparing the end-of-year Acadience achievement from 2021 to 2023.

The application of these parameters resulted in 22 outlier teams. Of those, six were within the PDCC's representative districts. Ultimately, four schools, each representing a different school district, were selected for participation in site visits.

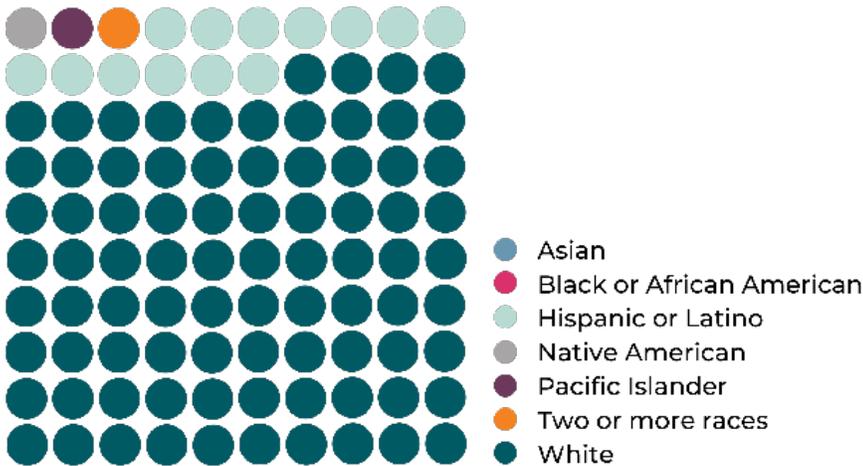
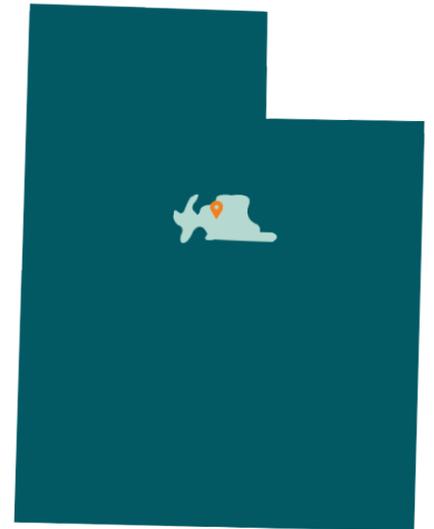
DISTRICT & SCHOOL DEMOGRAPHICS

All school sites identified are situated within the BYU-PSP school districts. Three of the districts are among the five largest in the state. Together, the four districts represented in this study serve approximately 30% of public school students in Utah. Complete demographic tables for the state, districts, and schools are in Appendix B.

Park View Elementary School, Nebo School District

Nebo School District, the fifth largest district in Utah, has 52 schools and serves more than 43,500 students. The district's headquarters are in Spanish Fork, Utah. The district extends around the southern and western parts of Utah Lake and reaches into the Uinta National Forest to the south and east. The cities that fall within Nebo School District include Springville, Payson, Santaquin, Goshen, and Eureka, all located within Utah County.

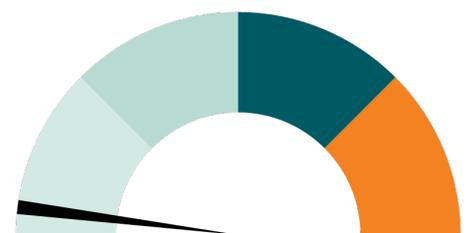
Park View Elementary, located in Payson, Utah, serves approximately 330 students spanning Pre-kindergarten to the 5th grade. The teaching staff is experienced, with 62% of teachers having taught for seven or more years, 19% for four to six years, and 19% for one to three years. Notably, 56% of the staff has been retained at the same school for three or more years. The first-grade team is composed of two teachers, each with substantial experience - one with 16 years and the other with 18 years - and an instructional coach.



35%
Economically Disadvantaged



20%
Students with Disabilities

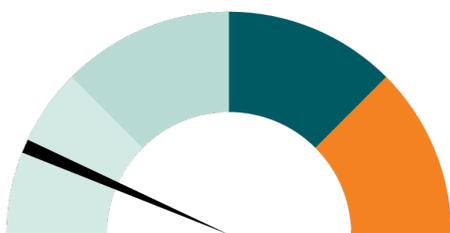
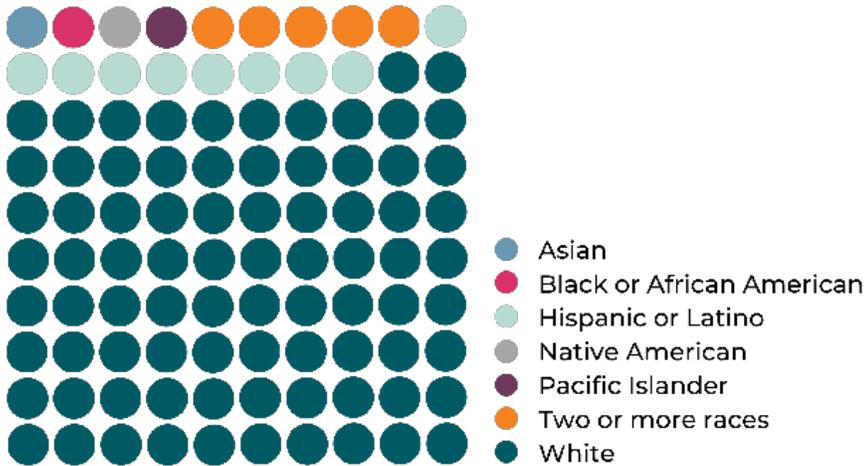
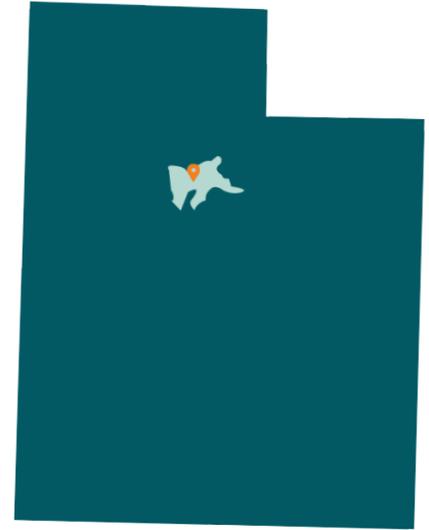


3%
Multilingual Learners

Springside Elementary School, Alpine School District

The Alpine School District is Utah's largest school district, serving nearly 85,000 students among 11 high schools, 14 middle schools, 61 elementary schools, and seven special purpose buildings. These students represent approximately 12% of the state's total public school enrollment, and Alpine is the 36th largest district in the nation (Alpine School District, 2023). The district encompasses several cities including Fairfield, Saratoga Springs, Lehi, American Fork, Lindon, and Orem, all near the northern portion of Utah Lake in Utah County.

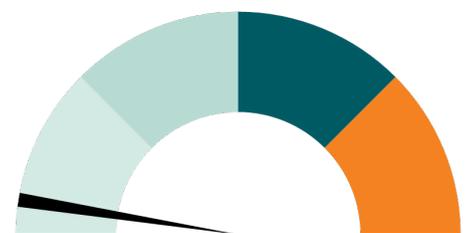
Springside Elementary School serves more than 700 students in Pre-kindergarten through 6th grade in Saratoga Springs, Utah. Nearly 60% of the faculty has at least seven years of teaching experience, and 71% of the faculty have been at the school at least three years (Utah State Board of Education [USBE], 2023). The first-grade team consists of five teachers, supported by a Professional Learning Community (PLC) coach. The teachers' experience ranges from a first-year teacher to those with more than 15 years of teaching experience in first grade.



12%
Economically Disadvantaged



10%
Students with Disabilities

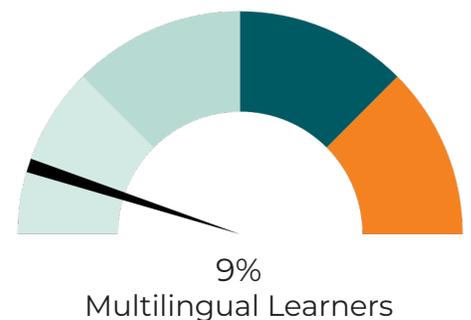
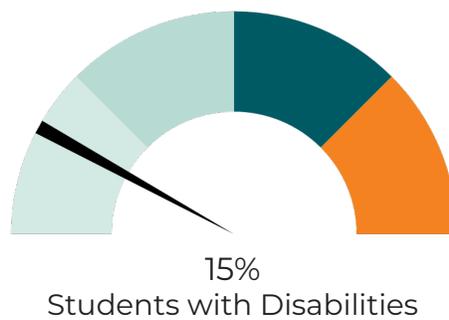
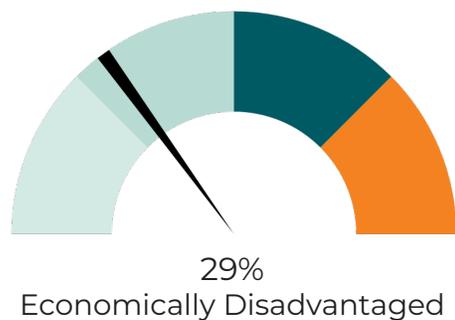
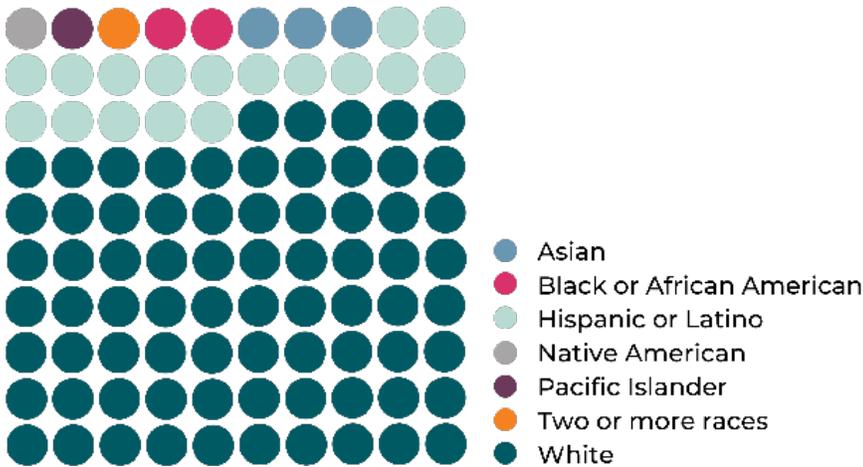
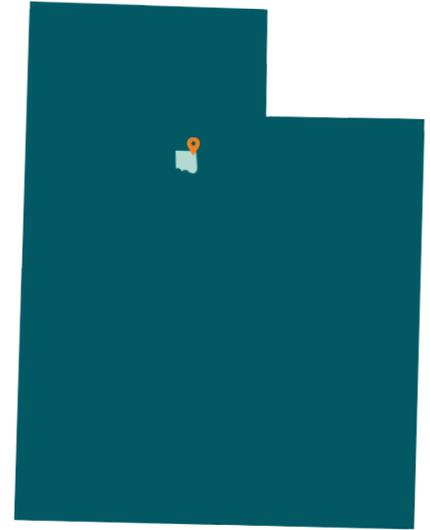


4%
Multilingual Learners

Westland Elementary School, Jordan School District

Jordan School District is Utah’s fourth largest school district, serving more than 57,000 students among 68 schools including 42 elementary schools, 13 middle schools, eight high schools, two technical centers, and three special education schools. The district is located south of Salt Lake City and has urban, suburban, and rural areas including the cities of Bluffdale, Copperton, Herriman, Riverton, South Jordan, and West Jordan, in addition to unincorporated areas of Salt Lake County (Ellis et al, 2023).

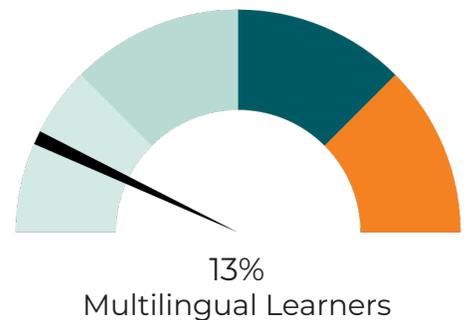
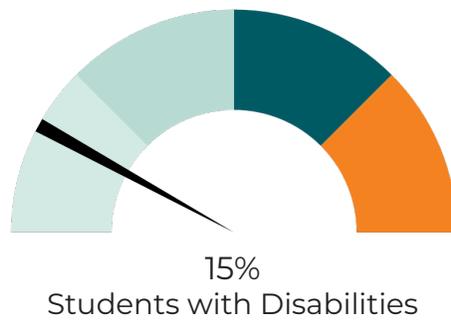
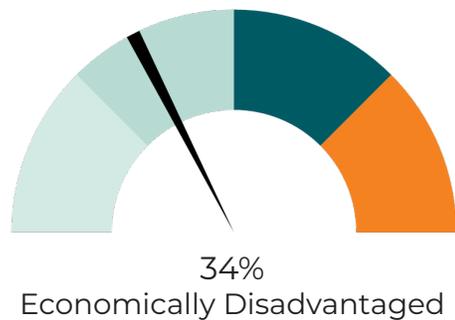
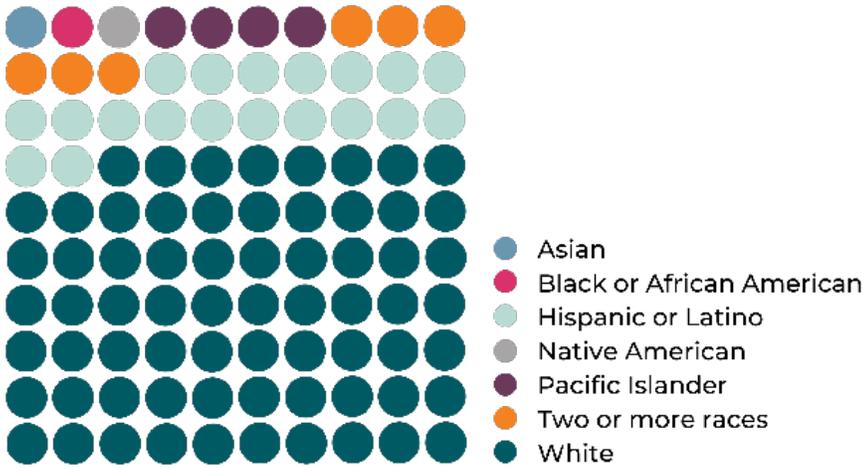
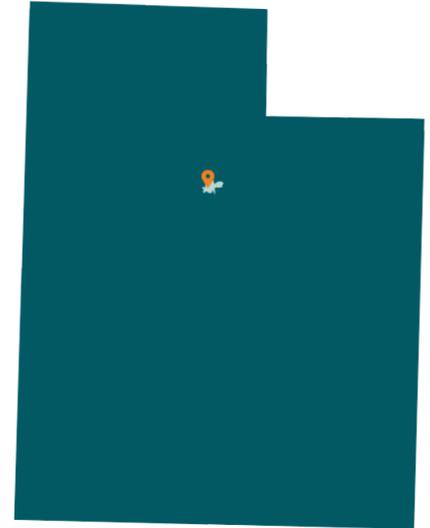
Westland Elementary School has approximately 500 students spanning kindergarten to the 6th grade. The school is located in West Jordan, Utah. More than half (52%) of the faculty have seven or more years teaching experience, and an additional 30% of the faculty have between four to six years of experience. The faculty tends to have a high retention rate, with 74% of teachers having been at the school for at least three years (USB, 2023). Approximately 160 of Westland’s students in grades 1-6 participate in the magnet school program, which serves the northwest area of the district for the Advanced Learning Placement for Students (ALPS) gifted and talented program. The first-grade team consists of three general education teachers, one ALPS teacher, and a school instructional coach. Remarkably, the team is new, comprising one first-year teacher and three teachers who have returned to teaching after several years away from the classroom.



Westridge Elementary School, Provo School District

The Provo School District, home to more than 13,500 students, comprises two traditional high schools, an alternative high school, two middle schools, 13 elementary schools, and one K-12 web-based school. Located in Utah County, south of Orem, it is flanked by Utah Lake to the west and the Wasatch Mountain Range to the east. The district includes Provo, the third largest city in Utah, and Brigham Young University.

Westridge serves Pre-kindergarten through 6th grade, with a total school enrollment of 620 students. Sixty percent of the faculty have at least seven years of teaching experience, while 30% have between one and three years. The three-year teacher retention rate for Westridge stands at 70% (USB, 2023). The first-grade team comprises three teachers, all of whom have experience teaching first grade. Two of these teachers have spent five years teaching first grade at Westridge, while the third teacher has more than 25 years of experience teaching first grade. Additionally, the school employs a learning facilitator with experience in literacy.



UNDERSTANDING HIGH FUNCTIONING TEAMS

With the rise in increasingly complex challenges and opportunities, coupled with the proliferation of digital connectivity, there has been a rapid reliance on effective collaboration. Research indicates that when tasks are complex, “groups are as fast as the fastest individual and more efficient than the most efficient individual” (Abdullah et al., 2021). This has profound implications for complex subjects such as teaching and learning.

Richard Elmore, often recognized as the father of instructional rounds, expressed his strong support for teacher teams, stating, “There is no other way to improve instructional practice at scale in schools than to organize groups of adult learners to work on problems of instructional practice and to weave those groups into an organization-wide strategy of improvement” (Elmore, 2012, xv). While it is widely agreed that collaboration is beneficial, understanding precisely what makes teams effective is a new area of investigation across diverse fields such as healthcare, the military, and academia (Rosenfield et al, 2018; Troen & Boles, 2012; Weir, 2018).

Teaching has long been an individualized profession. However, in the 1970s and 1980s, teams were brought together to coordinate work among those supporting students receiving special education services. This collaborative effort subsequently extended to professional learning and other elements of teaching (Rosenfield et

al., 2018). Fullan and Hargreaves (1991) emphasized the necessity of fostering interactive professionalism in schools wherein teachers make decisions “with their colleagues in collaborative cultures of help and support” (p. 14). They identified a problem: until that point, teachers had not had sufficient opportunity to improve their expertise as a community, which is critical for achieving the type of success desired. They argued that it is not enough for teachers to simply talk to one another; the topics of their discussions, and the manner in which they discuss them, are of paramount importance.

“There is no other way to improve instructional practice at scale in schools than to organize groups of adult learners to work on problems of instructional practice”

Teacher learning is a critical component of teacher collaboration. It is through collaboration that teachers discuss practice, investigate data to inform instruction, and develop implementation plans for action. In a review of research on teacher learning, Putnam and Borko (2000) reported that “cognition is

(a) situated in a particular physical and social context; (b) social in nature; and (c) distributed across the individual, other persons, or tools” (p. 4).

For teachers, the physical and social context is the actual school, which is why collaboration within a team is important. Desimone’s (2009) synthesis on effective teacher professional development found that professional learning structures for teachers are optimal when occurring in the classroom or location where the application of learning will physically take place. Another review of research on teacher learning expressed that “knowledge is situated in the day-to-day lived experiences of teachers and best understood through critical reflection with others who share the same experience” (Buyse et al., as cited in Vescio et al., 2007, p. 81).

This social context for learning yields results for teachers as well as students. In their review, Green et al (2016) observed that active learning in team base collaboration “enhances the coherence of training” (p. 16) and is more likely to improve student and organization performance. The search for what yields collaborative efforts extends far outside education. A review of studies from Harvard Business Review recently revealed that although methodologies may vary, themes of common understanding, psychological safety, and prosocial purpose are consistent aspects of high-quality teams (Burkus, 2023).

These formalized opportunities for collaborative conversation, in addition to the less formalized social collaboration among teachers, lead to improved outcomes for students. A study conducted over a span of five years and encompassing 1500 schools revealed that no consistent improvement effort was implemented on a national scale, yet researchers did find core characteristics of professional learning communities (PLCs) that enhanced collaboration and resulted in student achievement (Newmann et al., 1996).

DuFour (2004) built on this idea in his PLC work. He insisted that collaborative conversations make learning explicit and public, and that there are specific and intentional structures that support PLCs. He asserted the “all-too-familiar cycle” of unintentional implementation can lead to a lack of results and abandonment of the practice. Unlike the search for consistently effective and replicable improvements, DuFour and many others insisted that specifically implemented structures of teams enhance collaboration and student achievement (City et al., 2011; DuFour, 2004; Newmann et al., 1996; Troen & Boles, 2012).

Ultimately, good teams create conditions for teacher efficacy to thrive. Teacher efficacy, or “the shared belief by a group of teachers in a particular education environment that they have the skills to positively impact student outcomes,” (Visible Learning MetaX, 2023) is imperative to raising achievement. In his meta-analysis, Hattie reported that an effect size greater than 0.4 would yield more than one year’s growth for one year of input. With the Visible Learning Metax platform, these factors that influence learning are updated and sortable. The largest effect size (1.34) is consistently for collective teacher efficacy. Setting up structures that promote teacher efficacy is critically important. One of the most profound structures is creating powerful teacher teams. Hattie (2012) stated,

“One of the major messages from Visible Learning is the power of teachers learning from and talking to each other...The most successful method that I have encountered is the ‘data teams’ model, in which a small team meets a minimum of every two or three weeks and uses an explicit, data-driven structure to disaggregate data, analyze student performance, set incremental goals, engage in dialogue around explicit student performance, and create a plan to monitor student learning and teacher instruction” (p. 67).

Hattie isn’t alone in this assertion. The literature supports that “integrating teacher learning into communities of practice with the goal of meeting the educational needs of their students through collaboratively examining their day-to-day practice” (Vescio et al., 2008, p. 81) is a powerful learning tool for teachers that drives student success. Though often referred to in different terms, efficacy is embedded throughout definitions for high quality teams in education and other fields.

Utah's 5 High-Leverage Practices

1. Use student assessment data, analyze instructional practices, and make necessary adjustments in collaboration with professionals to improve student outcomes.
2. Use strategies to promote active student engagement.
3. Systematically design instruction toward a specific learning goal including the use of explicit instruction and scaffolded supports.
4. Provide positive and constructive feedback to guide students' learning and behavior.
5. Establish a consistent, organized, and respectful learning environment.

High Leverage Practices

In addition to highly functioning team structures, teachers should utilize proven and effective teaching practices, combined with attention to standards and learning intentions, supported with quality learning materials. Standards and curriculum are guideposts often decided outside of the classroom, while teaching practices are the moves teachers do every day with students.

Researchers argue that having a set of common practices and unified language for those practices is important. It is by calling out the “specific, routine aspects of teaching that demand the exercise of professional judgment and the creation of meaningful intellectual

and social community for teachers, teacher educators, and students” that these named practices prepare teachers “for the constant in-the-moment decision-making that the profession requires” (McDonald et al., 2013, p. 378).

High leverage practices are evidence-based, meaning they translate current research into practical applications. While many exist, Utah encourages five foundational practices that, when implemented, “improve instruction that results in better learning for students” (USB, 2020, p. 1).

These practices are performed in both individual and collective ways and “teachers who learn and master these practices are better

prepared to engage in the types of instructional practices and professional collaborations that are necessary for effectively educating students” (USB, 2020, p. 1). Teaching and learning are highly complex, and high-leverage practices can serve as models for implementing research evidence (McLeskey et al., 2017).

The extent to which these practices are evidenced may also indicate the extent to which teachers are high functioning both as individuals and teams. The Council for Exceptional Children (CEC) cautions that there is “critical nuance” within high-leverage practices that require understanding and mastery if the practices are to be successfully implemented (CEC, n.d.).

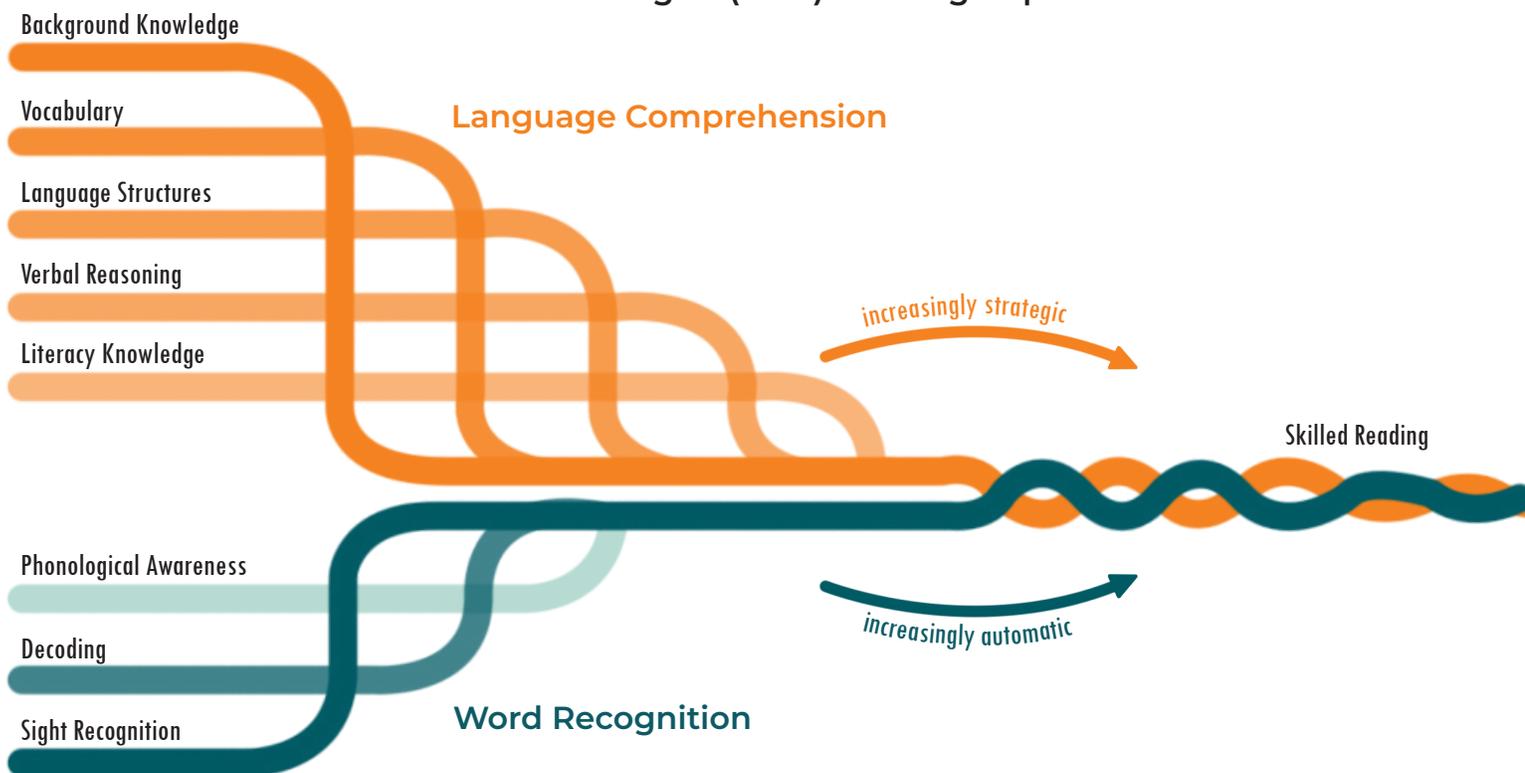
LETRS and The Science of Reading

The Science of Reading is a collection of “research, over time, from multiple fields of study using methods that confirm and disconfirm theories on how children best learn to read” (Nation Center on Improving Literacy [NCIL], 2022.) Five big ideas that inform teaching practice in the Science of Reading include phonemic awareness, phonics, fluency, vocabulary, and comprehension. The NCIL cautions practice must be responsive as new research becomes available and communities evolve.

Utah’s 2022 General Session Senate Bill 127, Early Literacy Outcomes Improvement, was designed to provide comprehensive support and expectations to improve Science of Reading instruction and increase student learning outcomes. Utah is among the 40 states that have adopted laws in the last five years to address literacy instruction (Goldstein, 2024). Early evidence suggests that these policies are improving reading achievement and may be reducing socioeconomic achievement gaps (Westall & Cummings, 2023).

As of August 2023, the Utah State Board of Education reported that more than 6,000 educators had completed all eight Language Essentials for Teachers of Reading and Spelling (LETRS) professional learning sessions, and another 4,000 educators were in the process of completion (USBE, 2023). Additionally, 70 schools and district leaders participated in the first cohort of Change Management for Leaders to Improve Literacy Outcomes, which is required for all leaders statewide. Teacher preparation programs in Utah, as well as nationally, are actively engaged in examining and refining their programs to better support teachers in the Science of Reading and the Science of Reading Instruction.

Scarborough’s (2001) Reading Rope



PRACTICE IN ACTION

Objectives

The Professional Development Coordinating Council (PDCC) aimed to identify highly successful first-grade teams that had completed LETRS training. It was presumed that the teams exhibiting higher levels of growth and achievement were successful in their early implementation efforts. While research exists on the attributes of high-quality teams and teacher collaboration, and decades of scientific evidence is embedded in the Science of Reading approach, the critical nuances of how teams function daily within their schools can still be elusive. This examination of successful teams identifies key traits and behaviors among Utah teachers to inform implementation efforts more broadly. It is the hope of the PDCC to apply lessons learned to future professional learning and support for other teams.

Themes

The PDCC met with four teacher teams, along with their coaches and administrators. These groups explained their structures, practices, and efforts towards implementation. Across different teams, schools exhibited variation in commonly examined aspects such as their core instructional materials, the age and experience of team members, student demographics, and their use of instructional coaches. All schools and teachers had undergone LETRS training, thus their foundational knowledge and core instruction was similar in that aspect, yet many other facets varied. Teachers consis-

tently attributed positive outcomes to three themes: the **consistent use of data to immediately inform instruction, high team efficacy and collaboration, and student goal setting and monitoring**. Teachers offered practical insights into their daily operations. Each practice is reflective of available research and is tied to foundational high-leverage practices.

Theme 1: Consistent Use of Data to Inform Instruction

The Research

In *Driven by Data*, Bambrick-Santoyo (2019) posited that data-driven instruction asks “how do we know if our students are learning? And if they’re not, what do we do about it?” (p. 4). Santoyo drew on lessons learned from over 20,000 schools to surmise that core principles of school success stem from assessment, analysis, action, and culture. Success is achieved through these steps: collecting the right data, performing deep analysis, immediately adapting teaching to address what was revealed in the analysis, and creating a team and school culture that thrives on this type of work. It is this approach that will lead to student success.

Research on the necessity of using data for instruction is plentiful. Data-driven decision making was first included in the American Recovery and Reinvestment Act of 2009, signaling that the previous twenty years of research had an impact at the policy level (Schifter et al.,

2014). Data literacy, or the knowledge and skills educators need to effectively use data to transform information into actionable instructional knowledge and practices, is known to have an impact on student achievement, yet many struggle to gain true data literacy (Ebbeler et al., 2016; Waymean et al., 2012; Mandinach & Gummer, 2016).

A study from the National Science Foundation revealed that moving from data analysis to data for teaching and learning requires teachers to synthesize their pedagogical and student knowledge with technological dashboards and data systems to “put the pieces of the puzzle together and make differentiated instructional decisions to support students learning” (Schifter et al., 2014).

Research on the effective use of data to guide instruction indicates that merely having and using data is not sufficient to positively impact student outcomes. Although the collection and analysis of data are important steps, “decision makers must interpret the data to inform decisions about how to effectively support students. Data must be combined with pedagogical and content knowledge to translate it into a usable action plan, taking the context into consideration” (Wilcox et al., 2021, p. 2). This quote effectively encapsulates what the literature advocates; teachers need to understand progress monitoring tools, select the appropriate assessment for each skill, understand



student learning trajectories, set suitable goals, draw on pedagogical knowledge to sequence learning, and formulate interventions. All these elements, in conjunction with data collection and analysis, are essential to improve learning (Bambrick-Santoyo, 2019; Institute of Education Sciences, 2018; Mandinach & Gummer, 2016; Schifter et al., 2014; Schildkamp, et al., 2019; Wilcox et al., 2021).

In summary, data analysis alone is not the key to success. After reviewing two surveys used with education policymakers across multiple countries, researchers concluded that “while continued investments in data creation and management are necessary, the ultimate value of information is not in its production, but its use” (Custer et al, 2018, p. 1). It is the content-rich instruction, coupled with skill-building activities based on what the data says, that leads to learning (Neuman et al., 2016). This does not imply that the act of analysis and the teaching response lack value. The process of creating and sharing common assessments provides a valuable opportunity for faculty collaboration, leading to teacher learning (Bambrick-Santoyo, 2019).

In a study of leadership behaviors that support data informed instruction, researchers found that while data use can place excessive pressure on teachers, data-informed decision-making to guide instructional decisions empowers them (Schildkamp et al., 2019). The

practice that follows data collection and analysis is critical to success. As Hattie (2012) stated, “such passion for evaluating impact is the single most critical lever for instructional excellence – accompanied by understanding this impact, and doing something in light of the evidence and understanding” (p. viii).

The impact of these data skills, when effectively acquired and implemented, has been shown to yield strong outcomes for student learning. The most recent Visible Learning meta-analysis indicates that both cognitive task analysis and teacher estimates of achievement both have significant effect sizes. Cognitive task analysis involves “studying and describing the reasoning, skills required, and progressions needed to master ideas that then form the basis for teaching interventions” (Visible Learning MetaX, 2023). These skills, embedded in the work of using data to set goals and design interventions, have an effect size of 1.09.

Similarly, when teachers estimate student achievement in activities such as setting expectations, using benchmarks, developing appropriate challenges, and influencing instructional decisions, the effect size is 1.29 (Visible Learning MetaX, 2023). This underscores the point that the use of data extends far beyond mere collection and analysis, and instead, positions data as one element of a broader system to sequence teaching and learning.

Relationship to Utah’s High Leverage Practices

Utah HLP 1: Use student assessment data, analyze instructional practices, and make necessary adjustments in collaboration with professionals to improve student outcomes.

Utah HLP 3: Systematically design instruction toward a specific learning goal including the use of explicit instruction and scaffolded supports.

The Practice

The outlier teams interviewed in this study leveraged data and their knowledge of the Science of Reading to intentionally design instruction. In each school, teachers outlined the trajectory of learning, designed and utilized common formative assessments, examined student work, identified areas of need within the data, and developed intentional interventions and extensions based on student data. They then implemented cycles of instruction to achieve incremental learning goals. Each team employed a different curriculum, but all have been trained in the Science of Reading, have dedicated Tier I and Tier II intervention times, and use Acadience for some aspect of progress monitoring.

Teachers asserted that an understanding of the Science of Reading forms the foundation of their assessment and instructional design choices. They noted that possessing a solid grasp of Science of Reading principles enabled them to be explicit in their instruction and understand the skills students need to acquire to reach their reading goals. Even though standards have long indicated students need to learn skills as letter sounds, the shift to intentional and specific instruction has been significant. One teacher stated, “I was using phonics before, but not with the same level of explicitness and the explicit instruction is making a huge difference.”

This level of clarity in teaching is a critical step in being able to analyze where students are in their learning journey, and what they need to learn next. According to Fendick (1990 as cited in Frey et al., 2018), for teachers to design

effective instruction, they must have a clear understanding of the organization, explanation, examples, guided practice, and assessment of student learning.

To understand where students are in their trajectory of learning, teachers across schools collaborated with teammates to develop common formative assessments. DuFour’s work on Professional Learning Communities (PLCs) stated that “for the assessment to be formative: (1) the assessment is used to identify students who are experiencing difficulty, (2) those students are provided additional time and support to acquire the intended skill or concept, and (3) the students are given another opportunity to demonstrate that they have learned” (DuFour et al., 2010, p. 63).

Each school used Acadience at the beginning, middle, and end of the year, but they also created their

own assessments to assess critical skills. Assessments at each school are designed to be highly focused and specific. Each team discussed isolating discrete skills, such as letter sounds or a set of blends, to form their common assessments. They used Acadience testing and program-specific tests to identify understanding of whole standards, whereas they “break apart” standards into smaller skills in the assessments they devised. For example, teachers demonstrated a brief assessment that required students to circle words that shared the same targeted sound. Additionally, they showcased a quick letter sound assessment where students read aloud to a teacher.

One teacher succinctly captured the application of pedagogical knowledge from LETRS in creating effective common formative assessments when they stated, “There is a lot of power in knowing what we are testing, why we are testing it, and how we prepare. We can’t be clear with students if we aren’t clear.”

Once an assessment was administered, teachers proceeded to interpret the data and adapt their instruction based on the insights gained. Each team had formal opportunities to reflect on teaching and learning in weekly PLCs with coaches and administrators, but they also emphasized their ongoing and less formal discussions as critical to their understanding of the data. Teams noted that informal discussions about student learning occur daily before school, at lunch, during shared recess duty, and after school. Data discussions were facilitated by having all students listed on a single spreadsheet. At Springside, for example, teachers

Nebo School District Continuum Example

Phonological Awareness, Phonemic Awareness, and Phonics Continuum	
Phonological Awareness (K-1)	Examples
Word Awareness – How many words are in the following sentence?	We go outside and play. (5 words)
Rhyme Recognition – Do the following words rhyme?	split/split (no) pound/sound (yes)
Syllables – How many syllables are in this word?	amazing (3 syllables)
Onset and Rime – What is the beginning sound(s) and ending part of the word?	stand Onset /st/ Rime /nd/
Basic Phonemic Awareness (K-1)	Examples
Phoneme Identity – What is the (first) sound in the following list of words? (first/last/middle sounds)	First sound – phone, fall, fun /f/ Last sound – have, prove, live /v/ Middle sound – bid, win, fit /i/
Phoneme Categorization – What word does not belong here because it has a different (first) sound? (first/last/middle sounds)	First sound – fun, sing, phone Last sound – snake, slip, flop Middle sound – hop, gap, stop
Phoneme Isolation – What is the (first) sound in the following word? (first/last/middle sounds)	First sound – dog /d/ Last sound – dog /g/ Middle sound – dog /d/
Phoneme Blending – Blend these sounds to make a word.	/s/ /b/ /n/ /t/ (sant)
Phoneme Segmentation – What are the sounds in this word?	bus – /b/ /s/ /ʌ/
Advanced Phonemic Awareness (K-2)	Examples
Phoneme Deletion – Say this word _____. Now say it without this sound ____.	spark Take away /s/ (park)
Phoneme Addition – What would you have if you added this sound to the end of a word?	park Add /s/ on the end (parks)
Phoneme Substitution – Say this word _____. Change this sound to this sound. What word is it?	splat Change the /t/ to /ʃ/ (splash)
Phonics/Basic Decoding (K-3)	Examples
Sound/Letter Correspondence – What letter makes the /b/ sound?	The sound /b/ looks like this b.
Closed Syllable (CVC) Words – A single vowel followed by one or more consonants. The vowel usually makes the short sound.	beg, lid, mop, nut, cats
Digraph – 2 letters that work together that spell one sound.	chop, path, shop, phone, chick, wheel
2-3 Sound Blends – 2 or 3 consonant letters next to each other where each letter makes a separate sound.	brag, rest, slip, dentist, splash, scram
Trigraph – 3 letters that work together to make one sound. (grades 1-3 only)	flch, patch, badge, bridge
3)	Examples
with a single vowel sound is	sky, banjo, robot, momentum
3 vowel sound. The most	wagon, extra, helmet, elephant
vowel is followed by one /s/ sound is usually long	cule, vole, sunshine, recognize palace, manage, festive
2 or more letters that work	paid, stay feet, beat, brief, key sight snow, boat
that is modified because it is sound /r/. (grades 2-3 only)	beam, fast, bird, tum, fern court, door, soat, carnivore, learn, early
an vowel that cannot be led. (grades 2-3 only)	loose, grew cain, employ found, scowl boat, fix
ns a consonant letter (3 only)	buckle, icicle, tremble, gaggle
f from Latin. (grades 2-3)	vacation, fusion, adventure
s for the same consonant. The “i,” or “y.” (grades 2-3 only)	city, vent, cine, cymbol, gel, fringe, giraffe, gym faster, raining, rented, fixes
part that is added to the plural or change the verb	
gins with a consonant letter.	helpful, nameless, quickly, employment, contests
with a vowel letter. (grades	curly, cleaner, joyous, smallest, bunches, searching
ded to the beginning of a word’s meaning. (grades 2-3)	disconnect, confront, unwind, incomplete, impossible, reread, preview, proactive
“ can make different sounds the end of the base word.	Sound /d/ added after a voiced consonant (bugged, rubbed, hummed) Sound /t/ added after an unvoiced consonant (packed, jumped, hissed) Sound /ed/ and an additional syllable added when the base word ends with the consonants t or d (rented, kended) cold, wild, mind, pill, most, forested, childish, kindness, poster
le that ends with a consonant (grades 2-3 only)	
other that make 2 separate	pi/quo, po/etic, ne/on, di/et
vowel sounds in each syllable. (grades 2-3 only)	

See full page example in Appendix C

shared a spreadsheet listing all students and their ongoing results for each skill. Students were assigned numerical scores and color-coding to track their learning. Importantly, because each teacher administered the same assessment and all students are listed in a common format, grade-level performance and common needs were readily apparent. This resulted in opportunities for teachers to design reteaching lessons that all teachers can implement during class time, as well as more targeted interventions that are specific to a select group of students from various classes.

Teachers across schools emphasized the importance of everyone having access to the data across the grade level, whether it is displayed in a single spreadsheet or simply through transparency with each other. As one teacher expressed, “I look at our data and say, ‘Wow... you are killing it with these strugglers. Can you take this group and I’ll take that group where I’m being successful?’” Teachers are able to assess their own teaching and learn from one another through these data conversations, and they are also able to make grouping decisions across the team.

At one school, action planning to address student learning occurred in weekly PLCs where common formative assessments were discussed. The action plan was immediately included on the top of the next agenda, along with student names, holding teachers accountable to follow up on their instructional shifts during the next week. Teachers discussed the open use of data in both informal conversations and specific PLC practices to guide interventions.

Each of the four teams utilized some kind of collaborative intervention time, during which either teachers or students physically moved to work across different groups.



Students participated in a one-hour intervention block four days a week, which consisted of three 20-minute rotations. They rotated among different teachers based on their current learning needs. Every student was assigned to an intervention group or an extension opportunity. Six assistants, including special education teachers, multilingual support teachers, and paraprofessionals, also led groups. If a teacher wasn’t available, an administrator filled in. Teachers were responsible for teaching Tier II interventions, and groups were intentionally kept small, with two to five students each.



Students had a 30-minute block daily at all grade levels for Tier II intervention or extension time. All available paraeducators assisted with groups in classrooms at that time. Students who needed additional intervention were more likely to remain in their own classroom, while those who needed enrichment moved to work with the gifted and talented teacher.

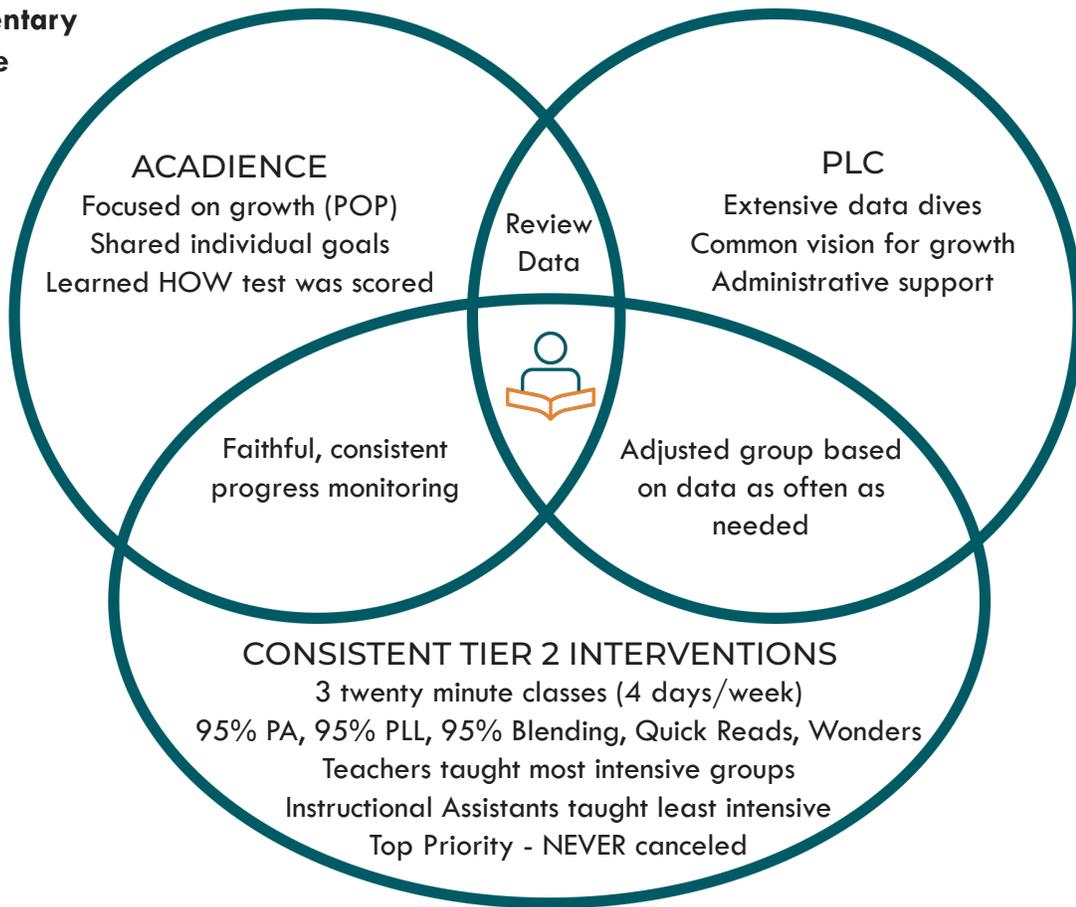


Teachers designed a “boot camp.” For 10 days at the start of the school year, teachers divided students into groups for 35 minutes to ensure that learners had the prerequisite skills needed for success, such as the names of letters taught in kindergarten. Students at or above grade level worked on building fluency in these skills and practiced skills that were taught early in the year. Students were grouped across classrooms based on their needs. Boot camps were conducted a few times a year when teachers identified a significant need or when students required extra time to master a particularly challenging skill. These boot camps were in addition to the daily intervention and ongoing instruction.



Teachers concentrated on intensive Tier I instruction, noting that it reduced the need for large scale Tier II interventions. They systematically built skills following the guidance provided by LETRS, and they monitored students daily within small groups. They worked collaboratively in weekly formal data analysis sessions. When interventions were necessary, teachers received support from certified teachers provided by the district who serve on the intervention team.

**Westridge Elementary
Success Structure**



While there were differences in team structures, all teams had a firm understanding of the skills students need to acquire, the sequence and progression of learning, and they created common methods to assess learning. They engaged in both formal and informal discussions of data, planned learning in response to the data, and designed specific lessons to address the needs of the class, groups, and individuals. Despite this ongoing evaluation and adjustment, teachers asserted that continuous cycles of learning were not overly dependent on testing. “I don’t feel like we are assessing all the time,” one teacher said, “we just start with little bits and measurable goals.”

The themes of high team efficacy and collaboration and student goal setting and monitoring are

intertwined within the theme of consistent use of data. Teams are strengthened by the collective efficacy created through data-informed collaboration. Students who are assessment-capable learners rely on teachers’ knowledge and sharing of student growth and achievement, as evidenced in the data. Five key takeaways that are common across classrooms related to their use of data-informed instruction include:

1. **Standards and Skills Progression**
Teachers precisely understood what standards students need to learn and routinely broke comprehensive skills into discrete skills and small goals. This was supported by professional learning in formal ways, such as LETRS training and instructional coaching, and less formal ways,

such as peer observation and real-time instructional adjustment based on student needs.

2. **Frequent Monitoring and Discussion**
Teams continuously monitored students and engaged in ongoing discussions about specific data, students, and instructional strategies. Teachers had opportunities for daily student monitoring, weekly common formative assessments, and Acadience progress monitoring. They engaged in continuous instructional discussions, occurring before, during, and after school every day, in addition to formalized PLC times.
3. **Shared Students**
Teachers referred to all students in the grade level as their stu-

dents, rather than talking about their own students or classes. Data was compiled in common spreadsheets accounting for all students, and intervention and extension groups were created according to student needs and teacher strengths, rather than being confined to their assigned classroom teacher.

4. Consistency

Teams emphasized the importance of consistency in various ways. Intervention groups were responsive and met every day. PLCs occurred each week and always included coaches and administrators. Instruction began during the first days of school and happened every day with-

out fail. When teachers were not available, administrators, coaches, and trained support staff ensured groups continued learning

5. Relentless Pursuit of Goals Using Data

Teams discussed not only setting learning goals but also setting the high expectation that all students would achieve above grade level benchmarks. They utilized detailed, discrete learning trajectories and monitored them relentlessly in pursuit of growth toward these goals. They adjusted teaching in a “whatever it takes” approach to student achievement.

How did you learn that?

Teachers learned to break down standards and analyze data through specific professional learning provided at the district and state level. Each team mentioned a different learning cohort or structure where they acquired these skills, but they have all been universally supported through expert coaching from an external source. Once the practice of tracking learning and modifying instruction in response was implemented, **“It only took one small success, and we were all in,”** as one team member said. In the case of new teachers, they were guided by veteran teachers and concrete systems. As one first-year teacher expressed, **“It wasn’t really a choice, it’s just the way we do it, and I know it works.”**

One school shared how they learned to effectively drive instruction using data.

“We had team training. It was actually on Math Acadience, but the district did learning labs. They came out and taught 3 times and each time they would show us how to prepare, model the lesson, and then debrief the lesson. Then we created a similar activity, and all the teachers tried it. We tried strategies like number talks. We all did a debrief and then our school coach could come in and support it.”

Theme 2: High Team Efficacy and Collaboration

The Research

One of the five conditions for effective teams is the presence of a collaborative climate (Troen & Boles, 2012). Research on teacher learning suggests that for teachers to undertake the challenging task of transforming their practice, participation in a successful professional community is necessary. The interactions among teachers “are major determinants of both what is learned and how learning takes place” (Putnam & Borko, 2000, p. 5). When teachers engage in learning from and with each other, it leads to an improvement in student achievement.

Leana and Pil (2006; 2009) determined that social connections with other teachers for gaining resources and skills have an even greater impact than formal education or teaching experience. When teachers were part of groups with strong ties, their students performed better. Interestingly, even low-ability teachers (those with less knowledge, skills, and experience) can perform as well as average-ability teachers when they are part of a robust teacher network (Leana and Pil, 2009). They even concluded that “the most useful advice on teaching may come from one’s own grade-level team” and emphasize that these relationships are best used to facilitate a rich exchange of resources and ideas (p. 1116).

When teachers participate in practices such as sharing data, they are assuming ownership of their own practice as the driver of student achievement. Allowing others to see areas of weakness and need

Noncollaborative Cultures

(Fullan & Hargreaves, 1996)



Balkanization

Separate and competing groups seek power and influence for their own ends



Comfortable Collaboration

Staff stay out of deeper, more extended relationships



Contrived Congeniality

Formal, specific bureaucratic procedures to force shared work

requires vulnerability, and vulnerability cannot flourish without trust. A guide to teacher collaboration research stated, “Collaborative practices can flounder if teachers are unable to be vulnerable” (Schleifer et al., 2017, p. 19). When teachers share trust, they are more likely to be open about their practices and willing to share what they know and need help with.

In *The Power of Teacher Teams*, Elmore said “trust is constructed through face-to-face collaborative work” (Troen & Boles, 2012, p. xv), which is essential for facilitating collective efficacy. Research has demonstrated that transactional trust provides a safety net of predictable behavior and “is related to greater focus on instruction and higher teacher performance” (City et al., 2011, p. 162). Regular interactions where teachers are vulnerable and receive support develop the safety net needed to be transparent about practices and improve teaching.

The critical importance of collaboration lies in the positive impact it has on student achievement. Strong professional communities are four

times as likely to see substantial improvements in student reading and math scores than schools with weak professional communities. The impact of community is even greater when coupled with highly aligned curricula (Bryk et al., 2010). A decade-long study in one of the largest school districts in the country found that teachers in supportive professional environments, specifically those with more peer collaboration, have greater increases in students’ standardized test scores than teachers in less supportive professional environments (Kraft & Papay, 2014).

Another large study of more than 9,000 teachers over two years found that schools where teachers reported instructional team collaboration was both “extensive” and “helpful” had higher student achievement in reading and math, and “teachers improve at greater rates when they work in schools with better collaboration quality” (Ronfeldt et al., 2015, p. 475). While collaboration alone has shown some effect on student outcomes, it is the quality of collaboration that makes a difference.

A systemic review of work on teacher collaboration concluded that “superficial collaboration,” such as discussing testing procedures or surface-level planning, is far more common than “deep collaboration,” such as aligning common practices and peer observations (Vangrieken et al., 2015). Fullan and Hargreaves (1996) cautioned that non-collaborative structures will not result in the collegiality and pressure that supports improvement. They stated that problem-solving, the exchange of craft knowledge, and professional support hinge on deeper collaboration.

Similarly, when teachers meet to discuss non-practice related work such as dress codes, tardy policies, or class parties, it does not meet the PLC purpose of expanding skills, strategies, materials, assessments, and ideas needed to impact student achievement (DuFour et al., 2010). Studies of collaboration show that in order to change instructional culture, instructional practice must be the focus of collaboration (Vescio et al, 2008). The specific talk needed to improve instruction is highlighted in many works, but all concern themselves with the focus on instructional moves. Instructional talk includes the expectation that teachers:

- “observe and critique the work of their peers;
- discuss, assess, and review lessons taught by team members based on student results; and
- hold each other accountable for the learning of all the team’s students” (Troen & Boles, 2012, p. 20).

Specific types of collaborative talk may be particularly important when learning new practices. Teachers in this study have all participated in

LETRS training and demonstrated student growth after implementation. Putnam and Borko’s (2000) review of research on teacher learning found that “teachers need opportunities to participate in ‘a professional community that discusses new teacher materials and strategies and that supports the risk taking and struggle entailed in transforming practice’” (McLaughlin & Talbert, 1993, p. 15 as cited in Putnam & Borko, 2000, p. 8). This implies that collective practice analysis is especially important when implementing new practices, such as incorporating LETRS training on the Science of Reading.

Fullan (2011) highlighted use of

the right drivers for accountability, including “capacity building, group work, instruction, and systemic solutions because they work directly on changing the culture or school systems” (p. 5). Hattie summarized the impact of teacher beliefs as collective teacher efficacy, or “the shared belief by a group of teachers in a particular educational environment that they have the skills to positively impact student outcomes” (Visible Learning Metax, 2023). Collective teacher efficacy maintains the highest effect size (1.34) of over 320 ranked factors that influence student achievement. Hattie further stressed eight mind frames that teachers need to develop in order to impact student learning and emphasized

Creating Deeper Collaboration

Vangrieken et al, (2015, p. 30-33) found characteristics leading to deeper collaboration through a systemic review of teacher collaboration research. These characteristics are reflective of lists found in other works on PLCs and effective team structures (City et al., 2011; DuFour et al., 2010; Troen & Boles, 2012).

- **Personal Characteristics:** These include, for example, a willingness or commitment to collaborate, an understanding the benefits of teaming and the combination of particular skills, knowledge and experience in teaming
- **Structural Characteristics:** time issues (e.g., individual and common planning time), staff continuity, physical structures or close proximity of facilities, regulation possibilities of the team, and frequent professional interaction that is formalized
- **Group Characteristics:** teaming skills (on team level), team size and tenure, a supportive atmosphere, leadership and group efficacy, diversity of educational level and experience, and understanding of roles
- **Process Characteristics:** process of working together, for example, flexibility, relationship building, conflict, task emphasis, interdependence, a structured approach with a focus on learning outcomes, professional autonomy

that readers should “Note the plural: it is a community of teachers that is needed to work together...in the pursuit of progress” (Hattie, 2012, p. 5).

Hattie’s 8 Mind Frames (Hattie, 2012)

1. Teachers believe that their fundamental task is to evaluate the effect of their teaching on students’ learning.
2. Teachers believe that success and failure in student learning is about what they, as teachers or leaders, did or did not do... We are change agents.
3. Teachers want to talk more about the learning than the teaching.
4. Teachers see assessment as feedback about their impact.
5. Teachers engage in dialogue not monologue.
6. Teachers enjoy the challenge and never retreat to ‘doing their best’.
7. Teachers believe that it is their role to develop positive relationships in classrooms/staffrooms.
8. Teachers inform all about the language of learning.

Relationship to Utah’s High Leverage Practices

Utah HLP 1: Use student assessment data, analyze instructional practices, and make necessary adjustments in collaboration with professionals to improve student outcomes.

Utah HLP 5: Establish a consistent, organized, and respectful learning environment.

The Practice

Teams at each school demonstrated many aspects of effective collaboration. They all had formal and informal ways for carrying on continuous conversations about students, student data, and instruction. The teams exhibited high levels of trust, frequency, and focus. Each team indicated that they believe this level of connection was an important part of their collective and individual successes.

Trust

As elaborated on in the previous theme, each team had a method of collecting and analyzing data across the entire grade population. This means that student data from each classroom was highly visible to other adults. Teachers acknowledged that there is vulnerability required to share their work in such a visible and open way, yet all teachers pointed to this being a valuable part of their practice. Not a single teacher expressed discomfort at

displaying their results or asking for help, signifying a high level of trust between teachers on each team. As one team member said, “We trust in the team. We have the ability to be vulnerable, and we have to, because they are all our kids.”

Trust comes from engaging in learning and implementing together. An administrator acknowledged, “We were expecting teams to get results, but we weren’t supporting them.” They added that administrators began meeting together with teachers to set the tone for discussions, focus, and sharing because, “If you aren’t there with the team, you don’t know what the team needs.” Sharing work as a non-negotiable was a crucial mindset to the work of their teams.

Instead of approaching data from the standpoint of “who isn’t doing well,” they instead focus on areas where they can foster student growth. This small shift takes the blame off teachers and instead

situates them as experts that can help one another problem-solve, in clear alignment with Hattie’s (2012) mind frames.

One teacher highlighted the difference that having a safe environment made when working with data:

“It’s a climate of comradery and acceptance and the freedom to risk. It’s safe to be wrong and it’s safe to try things. It’s a very different vibe than other places I’ve worked before. I know there is research Google has done on psychological safety and data without the threat of consequence.”

The administrator at the same school acknowledged that the work to create a safe environment was “nebulous.” The school took teams of teachers to a Solution Tree professional learning event and had a consultant follow up over four years. Both the teachers and their

administrator underscored the value of asking teams what they wanted to accomplish and how they wanted to accomplish it. They have also worked with Assessment to Achievement (A2A) coaches and incorporated some of the PLC structures and coaching techniques learned from A2A in their collaborative meetings.

Trust was evident across teams as they discussed how they openly discuss their teaching practices. Teachers in every team reported that they frequently visit each other's classrooms to observe materials and techniques. In some schools, this interaction was more formalized. When a teacher shared a successful practice, other teachers made time to drop by and see the practice in action, making it a part of their collaborative routines. One teacher mentioned that her coworkers were always open to someone dropping by to see a strategy in action. She added that it boosts their confidence to try new things because "just being able to go in and see... I could do that!"

Sometimes, teachers acquired resources simply by being in the physical classroom environment. One teacher said, **"We just walk into her classroom and ask, 'What's that? Can I have that?' I've never had a teacher tell me no."** The level of openness, not only in discussing practices and sharing resources but also in maintaining an open-door policy, fostered self-assurance and collaboration across teams.

One school discussed how they regularly planed and demonstrated to the newest teacher on the team how they arrived at previously devel-

oped lessons. They also invited each other to see practices in action. This strategy has helped the newest teacher achieve success similar to the veterans and unified practices across the team. As a first-year teacher noted, the system "engulfed" her, allowing her to focus on instructional practice.

Frequency

Within and across teams, teachers made it clear that they engaged in an ongoing conversation about student learning throughout each day and over time. All schools had a weekly PLC with a designated time to assess learning. Each PLC relied on student work or common formative assessments, included supporting staff such as administrators and coaches, and was subject-specific. The day of the week and total time varied, but the fundamental structure remained similar across schools. While these meetings were the most structured situations for data investigation and planning, teams emphasized that they were part of a continual discussion.

One team mentioned that they met daily each morning before school starts. While this was not a required or formalized setting, the need to lay out the day's plans and touch base on strategies started organically. Follow-up to these morning conversations continued through lunch and during shared non-teaching times, such as recess duty. This is significant because research has found that the more frequently teachers engage in advice-seeking behaviors and have opportunities to engage in in-depth discussions about learning, the more likely they are to experience trust, collaborative responsibility, and changes in practice (Parise & Spillane, 2010;

Vescio et al., 2008).

Teams highlighted some structures that fostered their frequent collaboration. In addition to weekly PLCs, schools hired substitutes for job-embedded collaborative time. School and district coaches modeled lessons and supported teachers, observing them teaching during the school day.

Collaboration is intentional, even across school years. One team used a school-wide tracker that organized data on each student from grade level to grade level. The teachers met with the team from the previous grade level to discuss specific student needs. Administrators at all sites noted the value of having both time and cultural structures in place. These provided teachers the opportunity to regularly collaborate, plan, implement, try out instruction, and make adjustments.

"The work is knowing where kids are and where they need to go; what we do matters, and we can make it matter."

Focus

The collective efficacy of each outlier team was unmistakable in the way they talked about their students, progress, and practices. Each team maintained a sense of urgency and dedication, with no wasted instructional minutes, from the first to the last day of school. Teams held consistent intervention times, structured PLCs, data collection, and

everyday bell-to-bell instruction. This tenacity carried into the collaborative conversations of teams. “The work is knowing where kids are and where they need to go; what we do matters, and we can make it matter,” declared one teacher. The meaning was clear – these teachers knew their impact on student learning and maintained focus around how to craft the greatest affect. Throughout the interviews, students were referred to in terms of “our students” or “the grade” but were never spoken of as “those kids” or “her class.” Terms were consistently collective and positive, illustrating how teachers felt a responsibility to all students. One teacher said they are “compelled” to get every student to read because they understand how critical first-grade reading is to future success.

A benefit of learning from one another is that teachers capitalized on the success of others. Instead of an approach that focused on what is not working, teachers said things

like, “We look at our data and say ‘Wow... you are killing it with these strugglers! Can you take this group and I’ll take this other group where I’m being successful?’ They looked for areas of strength in teaching to capitalize on the collective knowledge of the team. **“So much of it is just acknowledging that we need each other,”** one teacher said. Echoing that sentiment, another teacher remarked, “You don’t know it all. It’s coming together, like, I don’t have the solution but together we can come up with it.”

As research has shown, discussing the right topics with the correct mindset is crucial for maintaining focus on teaching and learning. Trust is a critical foundation for being able to focus. A teacher emphasized, “It was never an option to not be on the [collaborative] spreadsheet!” When teachers can be vulnerable, sharing data becomes an integral part of the work they do.

All teams were highly focused in

the conversations they were having. They used data and student work as evidence of successes and areas of need, and then strategized instructional practices that would continue to grow students’ skills. Groups were flexible to accommodate student needs and teacher strengths, but the actual grouping of students was a brief conversation.

The in-depth work teachers engaged in was focused on agreeing on a skill progression, discussing teaching techniques and resources, and troubleshooting. Modeling in teacher meetings and the classroom was a frequent occurrence for these teachers. This kind of work empowered teachers. As one teacher expressed, “We have the power to stop and question things based on data, based on Acadience, but also based on what we know about our kids.” This sense of collective efficacy was built on a foundation of trust and through frequent interactions focused on instructional practice and student outcomes.

Replicable Practices for Collaboration

These five practices were evidenced across all outlier teams.

1. Ground the Work in Data
2. Talk About Students by Name
3. Group Across the Grade Level
4. Create Time for Formal and Ongoing Conversations
5. Focus on Outcomes as a Result of Intentional Instructional Practice

Theme 3: Student Goal Setting and Monitoring

The Research

Student goal setting is one part of the more comprehensive metacognitive strategies that accompany being a self-aware learner. While simply goal setting alone is not enough to change student outcomes, it is a piece of a learning strategy with proven outcomes. Goal setting is broadly defined as “the process of establishing clear and usable targets, or objectives, for learning” (Moeller et al., 2012, p. 153). The literature on student self-assessment presents many definitions that can be somewhat ambiguous. Andrade (2019) asserted that self-assessment is best defined as “the act of monitoring one’s progress and products in order to make adjustments that deepen learning and enhance performance” (p. 10).

Strategies such as goal setting and self-assessment contribute to the concept of metacognition. Metacognition “surfaces across many parts of the self-regulated learning process: (a) goal-setting and planning; (b) self-monitoring and self-control; and (c) self-evaluation and reflection” (Beach et al., 2020, p. 27). It is the complex work of metacognition that leads to student outcomes. Ultimately, “the process of instigating and sustaining goal-directed behavior” (Schunk, 2019, p. 341) is the heart of student motivation.

Metacognition can be developed through many self-regulation and reflection strategies, enabling students to self-select the right strategy at the right time and then reflect on its effectiveness (Beach et al., 2020). Common examples include student self-reported surveys or

think-alouds. Research has found that individual strategies are not as important as the broader implementation methods. Self-assessment literature indicates that practices are most beneficial to achievement and self-regulation when strategies are “used formatively and supported by training” (Andrade, 2019, p. 10). Goal-setting research has found that while students need guidance to accurately make their own goals, student participation in goal creation results in a higher likelihood of achieving those goals (Boekaerts, 2002; Moeller, 2012).

Studies on both aspects of metacognitive processes and metacognition as a whole have found that they improve student outcomes. Schunk’s (2019) comprehensive review of learning theories suggested that students’ attention to processes and strategies for goal setting can influence their study habits and learning outcomes. Researchers have cautioned that performance goals promote social comparisons and failure avoidance, rendering them less beneficial than mastery goals that develop self-efficacy (Beach, 2020; Moeller et al., 2012; Schunk, 2019).

Mastery-oriented goals, which promote a “deep, conceptual understanding of a topic,” contrast with performance-oriented goals that may promote competition and “focus on external expectations and validation (e.g. a high test score)” (Beach, 2020, p. 16). Process goals represent the incremental steps taken toward achieving a performance goal. Evidence suggests that in the context of reading comprehension instruction, process goals can lead to self-efficacy when paired with appropriate feedback on learning

and strategy use (Schunk, 2019). When engaged in these processes, students “tend to use deep processing strategies that enhance conceptual understanding and that require cognitive effort” (Schunk, 2019, p. 378).

Students who possess metacognitive skills tend to make better progress than those who have not been taught such skills (Perry et al., 2019). Indeed, studies have found that metacognitive skills can contribute to learning performance independently of intelligence. In one study, researchers attributed about 10% of student success at school to intelligence and 17% to metacognitive abilities (Veenman et al., 2004).

Another meta-analysis found that, when controlling for intelligence, metacognition predicts academic performance regardless of age or setting (Ohtani & Hisasaka, 2018). Academic performance (.62), cognitive and metacognitive strategy use (.73), and motivational aspects (.76) contribute to the average effect size of .69 for trained students (Dignath et al, 2008). Schunk (2019) suggested that students who engage in goal setting, feedback, and who are aware of their progress, tend to be more motivated to continue to learn.

Hattie (2020) used the term “visible learning” to encapsulate the components of goal setting, feedback, and instruction that support metacognitive strategies. He asserted, “Visible Learning methodology means that students are taught to know what they need to learn, how they need to learn it, and how to evaluate their own progress” (Hattie & Hamilton, 2020, p. iv). Visible

Learning MetaX (2023) highlighted that “researchers have pressed the importance of a student’s ability to reflect on his or her work, discern its relationship to established standards, and make self-judgements.” This has a 0.81 effect size across 99 represented studies, while evaluation and reflection have a 0.75 effect size. Other effect size analysis has reported metacognition to have similarly high effect sizes and be an effective and efficient approach to improving pupil outcomes, particularly among primary age children in content areas (Education Endowment Foundation, 2021).

Although goal setting has been associated with positive academic benefits, it does not work in isolation. Researchers have cautioned that students working independently tend to misjudge their own capabilities (Boekaerts, 2002; Moeller, 2012; Visible Learning MetaX, 2023). Outcomes from goal setting depend upon “how educators design and implement their goal-setting strategies” (American Institutes for Research, 2018, p. 5).

Students need consistent opportunities to set and plan long-term and proximal goals for their learning that are personally meaningful, optimally challenging, and specific in nature (American Institutes for Research, 2018; Dent & Koenka, 2016; Shunk, 2019). These opportunities should stem from frequent formative monitoring (Beach, 2020). Instructional variables, such as teacher feedback, play a critical role in generating outcomes associated with goal setting (Shunk, 2019).

Factors such as the clarity of tasks, data that informs goal setting,

formative evaluation and feedback on goals, and strategies learned by students to address goal progress all contribute to student outcomes. Improvements in student learning at scale can be achieved through three methods: improving teacher knowledge and skill, escalating the level and complexity of student tasks, and transitioning the instructional role of students towards more active participation (City et al., 2009). Setting goals and devising ways to achieve them are crucial for students to actively participate in their own learning. This is of critical importance as “the real accountability system lies in the tasks that students are assigned to do” (City et al., 2009, p. 38).

Relationship to Utah’s High Leverage Practices

Utah HLP 2: Use strategies to promote active student engagement.

Utah HLP 4: Provide positive and constructive feedback to guide students’ learning and behavior.

The Practice

Teachers at each outlier school engaged in goal setting with students. They emphasized goal setting as a product of teacher clarity, which stemmed from formative and summative data, a deep understanding of the standards, and explicit instruction learned throughout LETRS training and implementation. Because teachers had a clear understanding of the building blocks of phonics and literacy instruction, they were better positioned to estab-

lish clear learning trajectories and process goals. One team discussed the importance of unlearning previously accepted strategies from guided reading, such as checking the picture for reading clues, and instead focusing on decoding and phonics. Teachers also acknowledged that much of the LETRS training and practices provided them with concrete scope and sequences, enabling them to set clear and reasonable goals for students. Teachers were able to define steps in learning because they gained a better understanding of what language progression looks like.

Teachers at all schools relied on the data they collected through formative and summative measures, such as Acadience testing and team-produced skill assessments, to determine what skills students knew, needed to learn next, and had mastered. Data collection and analysis were critical to setting goals for and with students. As one teacher remarked, “If we don’t know what the steps are, how would a student know?” While each school used a different curriculum, the underlying principles of the Science of Reading helped each team make strategic decisions.

One school mentioned that they follow the district curriculum, but they were empowered to re-pace complex sounds as needed because of their understanding of language development and what their data had indicated their students need. “Our kids know ‘Short A.’ We don’t need to spend a long time on that,” one teacher said, “but our data was terrible when we got to more complex sounds and we needed to spend longer there.”

In every school, each student had individual goals. One team stated the importance of all students having goals, not just those needing extra support. Schools tended to implement both mastery and process goals. For example, students worked on goals that addressed the most crucial part of each standard, and they also worked on discrete skills en route to achieving the mastery goals.

Some teachers talked about mirroring end-of-level assessments when developing common formative assessments, while others discussed developing goals grounded in the language of standards. In both cases, these skills created a trajectory of learning so that as students developed each individual skill, they were moving toward mastery of a more complex topic. In some districts, such as Nebo School District, a common continuum of learning was available for teachers use as a guide to phonics acquisition (see example in Appendix C).

At Springside Elementary, teachers emphasized the importance of setting high goals. As part of the collective belief that all students can achieve, teachers at Springside intentionally set their learning goals at “blue” (achieving above grade level). While they still set individualized and appropriate goals that were “not too hard, and not too easy” for each student, all goals were based on the expectation of achieving beyond the grade level standard. In this way, teachers ensured they pushed themselves to a higher standard of teaching, even when the grade level expectation had been met.

Similarly, teachers at Westlake focused on high fluency goals and reading expectations for students when students were already at or beyond the grade level expectation. They provided more access to varied text to continue to build reading skills for those comfortable with first-grade material.

Physical tracking of progress toward each goal was evident at each school. In the same way teachers maintained spreadsheets on the skills students have mastered, they provided student-friendly trackers. Students used these personal trackers to monitor and reflect on their own progress toward their goals. Some teachers kept a binder with trackers and student work, while others used single tracking sheets. In all cases, trackers were tangible and not digital. Students physically held and colored in or drew their achievement toward a goal. Tracking sheets were common across the grade level from class to class and often accompanied students as they participated in small group activities.

Conferences were an important component of student goals at each school. Teachers conducted mini conferences with each student to discuss their goal, their progress toward achieving the goal, and the steps they needed to take to keep

Where am I on the Nebo Phonics Curriculum?

Name: _____

Basic Decoding Skills		Examples
	Sound/Letter Correspondence – What letter makes the /b/ sound?	The sound /b/ looks like this b .
	Closed Syllable (CVC) Words – A single vowel followed by one or more consonants. The vowel usually makes a short sound.	beg, lid, mop, nut, cats
	Diagraph – 2 letters that work together that spell one sound.	chop, path, shop, phone, chick, wheel
	2-3 Sound Blends – 2 or 3 consonant letters next to each other where each letter makes a separate sound.	brag, rest, slip, dentist, splash, scram
	Trigraphs – 3 letters that work together to make one sound.	itch, patch, badge, bridge
Advanced Decoding Skills		Examples
	Open Syllable – A syllable that ends with a single vowel letter. The vowel sound is usually long.	sky, banjo, robot, momentum
	Schwa – An unaccented and unstressed vowel sound. The most common sounds are /uh/ and /ih/.	wagon, extra, helmet, elephant
	Vowel Consonant E (VCE) - A single vowel is followed by one consonant and the letter “e”. The vowel sound is usually long.	cute, vote, sunshine, recognize
	VCE + Schwa	palace, manage, festive
	Vowel Teams (long vowel sounds) – 2 or more letters that work together to spell one vowel sound.	paid, stay, feet, beat, brief, key, sight, snow, boat
	R-Controlled Vowels – A vowel sound that is modified because it is immediately followed by a consonant sound /r/	barn, fork, bird, turn, fern, court, door, sport, carnivore, learn, early

progressing. Some teachers used trackers and evidence of student work in parent-teacher conferences as well. Teachers who used student trackers found that enabling students to track their own goals and learning has also helped parents better understand their children's achievements. Pre-conferences to reiterate goals were common before taking an assessment, such as the mid-year Acadience benchmark assessment. One teacher mentioned they remind students of their goals and the skills they have learned to achieve those goals, and then they highlight these prior to assessment and progress monitoring.

Teachers emphasized the need to focus on growth as well as achievement. They stated that recognizing growth helps keep students motivated and allows them to celebrate all successes. In this way, students were not competing against one another, but were able to accurately monitor their own progress. Teachers said it was just as important for students to

have a chance to celebrate success. Each student could focus on their own pathway while still being acknowledged publicly. Celebrations were brief, such as short cheers, quick moments of clapping, or earning small stickers. In one school, students rang a bell when they reached their goal, which was a chance for everyone to celebrate.

Previous themes are incorporated into student goal setting. Teachers used data to inform learning trajectories and to develop appropriate, intentionally sequenced goals. They applied their understanding of instruction to address learning needs. As with data-informed instruction, the actual teaching practices that help students achieve their goals are essential. Merely setting goals does not ensure their achievement. Fluid and flexible goals that are continuously updated are also important, just as they are in responding to data. Teachers held high expectations for themselves and believed in their ability to in-

fluence student outcomes, which was evident in setting ambitious goals with students and creating meaningful experiences to facilitate their progress.

Notably, the research reflects that goal setting with students can be even more effective, but this was not discussed as a practice among the outlier teams. Reflection on goals and student progress involved students, but the goals were set by teachers. Much of the research on goal setting is tied to metacognitive strategies, which may be in place at outlier schools, but this was not clearly stated. What was evident was that teachers provided feedback to students about their learning in timely, specific ways, including oral feedback, assistance in monitoring progress towards goals, and feedback on formative and summative assessments. Students tracking their own learning fosters the reflective practice necessary for metacognition.

Replicable Practices for Students Understanding the own Learning Trajectory

These five practices were evidenced across all outlier teams.

1. Develop a Clear Understanding of Learning Trajectories
2. Provide a Physical Method of Student to Record Progress
3. Maintain a Collection of Student Work to Demonstrate Learning
4. Celebrate Growth and Achievement
5. Utilize Student Progress and Goals in Student and Parent Conferences

Curriculum and Coaching

Aside from the three themes that were apparent in team interviews, schools exhibited some significant differences in selected instructional materials and coaching. This is not to suggest that these areas are unimportant to achieving early literacy success as a team. These differences are important, but they still contributed to the structures in place to support teams.

The adopted curriculum varied at each school site, though each school did use the Acadience assessment as at least one measure of progress and achievement. While each school has adopted a varied curriculum, all resources aligned with the Science of Reading and LETRS training, which has been conducted in each LEA. The danger in self-selecting and combining materials, as nearly 90 percent of America's teachers indicate they do, is "the caliber, rigor, and rational sequencing of that material both within and across grade levels becomes a matter of luck and chance" (Steiner, 2024, para. 4; Tosh et al., 2020).

High-quality instructional materials have been found to impact student achievement scores as much, or more, than teacher quality (Chingos & Whitehurst, 2012). A review of research conducted at Johns Hopkins found that a comprehensive, content-rich curriculum leads to higher academic performance, which has a cumulative effect, and is critical to student academic success (Steiner, 2017).

High-quality instructional materials and professional learning go hand-in-hand. When aligned materials are paired with an integrated de-

livery model and time for planning, the effects on teacher learning and student outcomes increase (Jackson & Makarin, 2016; Taylor et al., 2015; Wiener & Pimental, 2017). This may be significant when considering the impact of LETRS training on student outcomes. If training or reading materials stand alone, they are not as effective as the combined effects of implementing learning with quality materials.

A Learning First (2018) review of research found, "While stronger curricula make a real difference, that difference is magnified by matching it with professional development. Indeed, what research we have suggests that over half of the possible impact of shifting to a stronger curriculum is lost if strong professional development is not part of the transition" (p. 17).

Teachers in outlier schools participated in LETRS training, received high-quality instructional materials from their Local Education Agencies, and had time to plan and implement in iterative cycles. Each team participated in some common training through statewide LETRS opportunities, as well as varied opportunities such as locally designed professional learning. Even though selected curriculum and implementation support for the curricula varied, the alignment to standards, the Science of Reading, LETRS training, and professional learning were common elements.

When creating their own materials, teachers most often described creating supplemental materials for common formative assessments to target specific skills, and they did not indicate major deviations from the provided curriculum. When they

created or purchased additional materials, it was typically for what one school described as "uncontrolled text," meaning passages that were not targeted to specific skills. These materials were usually used for fluency and "time in text," where students practiced reading skills with new passages. Schools did not mention resources such as Teacher Pay Teacher; instead, they opted for reliable resources from their district-supplied materials or Science of Reading-informed organizations such as the University of Florida Literacy Institute.

Coaching

Each outlier school employed an instructional coach that took part in formal PLCs and training. Coaches were less likely to engage in informal conversations that occurred in teacher classrooms, hallways, during lunch, and at recess times. While all schools had a coach, the manner in which coaches interacted with each team varied. This aligns with literature on coaching, which indicates that while the effects of coaching are generally positive, effective coaching is often "highly personal and idiosyncratic" (Gibbons & Cobb, 2016, p. 413).

An evidence brief on coaching found that effective coaches participate in activities such as planning, observations, and feedback, and they achieve better outcomes when they can build trusting relationships with the teachers they coach (Booker & Russell, 2022). One meta-analysis of 60 studies, which isolated coaching effects, reported that the difference in effectiveness between novice and veteran teachers equaled the difference between teachers with and without instructional coaching support (Kraft



& Blazar, 2018). Coaching that incorporates content focus, active learning, sustained duration, coherence, and collective participation improves teacher knowledge, skills, and practice (Desimone & Pak, 2016).

Teachers themselves may influence the coaching relationship, leading to better (or worse) outcomes from coaching. Research has found that teachers who have a genuine interest in improving student learning and who willfully engage in coaching relationships are more likely to experience benefits from coaching (White et al., 2015). Teachers in outlier schools exhibited a high level of collective teacher efficacy, which may suggest they were more likely to benefit from instructional coaching due to their steadfast belief in their ability to improve student learning. Teachers who believe they can increase student achievement are more likely to receive coaching, and coached teachers are more likely to boost student achievement. Furthermore, observing positive outcomes is more likely to solidify teaching-coaching relationships.

Coaches were present in discussions with outlier teacher teams. Without being directly asked about coaching, teachers seldom provided information on how coaches impacted their teams or the work they did. When directly asked, both

teachers and coaches listed varied ways they supported their teams, including:

- Collaborative learning
Coaches attended LETRS training, often alongside teachers, and participated in additional LEA-level learning opportunities. They offered advice and insights to teams during PLCs based on their learning.
- Data facilitation
Coaches frequently pulled data from benchmark assessments and online platforms and translated it into commonly used spreadsheets for use during collaboration. Teachers mentioned that this is a timesaving measure that allowed them to focus on what the data showed and plan instruction during collaborative time.
- Material support
Teachers indicated that coaches provided materials and resources to support learning. This happened in a variety of ways. Coaches:
 - o facilitated access to materials from LEA repositories,
 - o ensured LEA approved curriculum materials are readily available,
 - o informed the development of common formative assessments, and
 - o sourced reputable supplement-

tal materials as needed.

- Design instruction
Especially during PLCs, coaches offered teaching support. They modeled examples of routines, suggested intervention ideas, and helped ensure planned lessons adhered to sequence, scope, pacing, and standards
- Focus on alignment
Coaches informed the level of rigor in each standard and helped design common formative assessments and learning trajectories. They helped unpack skills needed to master each standard.
- Fill in
All teams mentioned the importance of never missing a day of instruction, specifically when working in small groups. Classroom teachers, paraprofessionals, and administrators most commonly stepped in to ensure lessons were never missed, but coaches were also available to maintain scheduling.

Although coaches at each school engaged with teams in different ways, they all ensured a focus on standards, student learning, and teaching strategies. They fostered clarity, supported teachers in designing lessons to meet students' needs, and added a layer of support to the work teams engaged in.

Teaching Experience

Experienced teachers are more likely to enhance student academic success, improve other student success measures such as attendance, and support the learning of their colleagues and school (Kini & Podolsky, 2016). A review of research found that teacher effectiveness increases as experience increases, and, in turn, student achievement increases (Podolsky et al., 2019). However, the working environment may be just as important as experience; a study conducted over ten years found those in positive professional environments are more effective than those who are not (Kraft & Papay, 2014).

Positive working environments, like those in the outlier schools, are characterized by a “trusting, respectful, safe and orderly environment, with collaboration amongst teachers, school leaders who support teachers, time and resources for teachers to improve their instructional abilities, and teacher evaluation that provides meaningful feedback” (Podolsky et al., 2019, 298). While experience is generally positive, there are studies that show a greater tendency among veteran teachers to be resistant to change (Snyder, 2017).

Among the outlier schools, years of teaching experience varied. The least experienced teachers were in their first year of teaching, while the most seasoned teachers had more than 25 years of experience. Some teachers had only taught first grade, while others had taught different grade levels. At Westlake, teachers were unique in that the entire first-grade team classified themselves as “new,” even though they had various years of experience. The teachers on this team had recently returned to the classroom after having had prior experience and then stepped away from teaching for several years. They viewed this “newness” as an advantage to their teaching, stating they did not have to unlearn practices when learning about the Science of Reading.

Others mentioned that having experienced teachers helped support their newest teachers. At Springside, for example, teachers with more than 15 years of experience developed a comprehensive plan for data collection and review, as well as for intervention grouping. The newest teacher on the team said that these established processes allowed her time to focus on the details of her teaching practice. Team members regularly observed each other’s teaching methods and learned from one another. However, particular emphasis was placed on regular planning sessions with the newest teammate.

Teachers frequently discussed the benefits of learning from one another. The unique combination of experiences contributed to the diverse strengths of each team. This is corroborated by research on teacher learning. Putnam and Borko (2000) reported that “when diverse teachers with different types of knowledge and experience come together in discourse communities, community members can draw upon and encourage each other’s expertise to create rich conversations and new insights into teaching and learning” (p. 8). While experience can influence teacher effectiveness, the diverse teams of teachers working collaboratively in supportive environments enabled even the newest educators find success within these outlier teams.



REPLICATION & LIMITATIONS

Success of the teams in this study is bolstered by system structures and distinct practices. The teachers engage in particular practices that expedite student outcomes compared to other teams with access to the same or similar structures. The underlying structures that ought to be in place for teams to achieve success include:

High Quality Materials

All teachers are provided with LEA-vetted materials that adhere to the principles of Science of Reading and align to standards.

Professional Learning

Teachers, along with administrators, coaches, and district specialists, participate in training in the Science of Reading. They also engage in other professional learning opportunities that support teachers in their teaching practices, intervention strategies, and data use.

Instructional Coaches

Teachers have access to instructional coaches at their school site who have expertise in pedagogy and content. Additional coaching support, including LEA coaches, mentors, and coaches from other related programs such as Assessment to Achievement, is available to teachers.

Data Access

Teachers have ready and reliable access to student assessment data. In addition to self-created and commonly conducted formative assessments, teachers or their coaches can quickly access LEA and state collected data.

Professional Learning Communities

All teachers participate in formal PLCs attended by administrators and coaches. Weekly team time is dedicated to examining data, student work, and planning for instruction collaboratively.

These underlying structures are accessible to other teacher teams within the same districts, yet they have not achieved the same level of success. There are compounding and complex factors to teaching and learning that may account for these differences. However, teachers in this study utilize data to inform instruction, demonstrate high levels of collaboration, and promote student goal setting and achievement. Within each theme, teachers provide tangible ideas to replicate their success.

Replication and Scale

Teachers discussed their experiences of being trained in specific practices related to the themes. When teachers had the opportunity to learn from experts on what data to collect, how to analyze it, and how to respond to needs with intentional lesson design, they witnessed immediate success, leading to greater acceptance of the practice. Similarly, teachers highlighted the impact of modeled planning, lessons, and debriefs when learning new teaching strategies.

Teachers are motivated to apply productive teaching practices when they receive specific training and support in implementation. This suggests that for other teams to have the same success, they need more than just learning about the Science of Reading; they require guidance on how to monitor, assess, and instruct in very tangible ways. Schools that allocate time and space for a PLC, but do not guide teachers on how the PLC should be conducted, are unlikely to be as successful. Schools that train teachers in the Science of Reading, but do not provide modeled lessons and reflections, are unlikely to witness the same improvements in student achievement.

Limitations

The primary limitation to replication is that much of these teams' success is rooted in the underlying collective teacher efficacy they experience. Collaborative cultures can be nurtured with time, space, autonomy, professional learning, and coaching, yet can be challenging to impose. Observers in this study universally commented on the intangible "feel" from being among energetic and passionate teams that clearly maintain successful relationships with each other. Although schools and systems can pay attention to team dynamics and promote practices that lead to success, cultivating a culture is complex and heavily relies on interpersonal relationships.

This study was carried out through group interviews with identified teams. While the highlighted practices are common across the outlier sites, there is a limitation in using self-reported practices, especially in a group setting, without observing practices in action and over time. Ethnographic case studies of outlier school teams, conducted over a significant period and delving into the complexities of group culture, might be more suitable for uncovering the nuances within the teams that lead to success.

CONCLUSION

The exploration of high-performing first-grade literacy teams in Utah reveals that their success is not accidental. It is a result of the interplay of intentional practices, supportive structures, and a strong collaborative culture. The consistent use of data to inform instruction, coupled with high team efficacy and a focus on student goal-setting, has proven to be a powerful combination in driving student literacy achievement. The presence of supportive structures, such as access to high-quality instructional materials and coaching, further amplifies the impact of these core practices. The findings underscore the critical role of collective teacher efficacy and a positive professional environment in creating the conditions for optimal teaching and learning. By replicating these practices and investing in the development of collective teacher efficacy, schools can empower their educators and pave the way for improved literacy outcomes for all students.

Consistent Use of Data to Inform Instruction

1. Know standards, skills, scope, and sequence
2. Regularly monitor and discuss student learning
3. Share students
4. Maintain consistency
5. Pursue recent goals using data as evidence

High Team-Efficacy and Collaboration

1. Ground the work in data
2. Talk about students by name
3. Group across the grade level
4. Create time for formal and ongoing conversations
5. Focus on outcomes as a result of intentional instructional practice

Student Goal Setting and Monitoring

1. Develop a clear understanding of learning trajectories
2. Provide a physical method for students to record progress
3. Maintain a collection of student work to demonstrate learning
4. Celebrate growth and achievement
5. Utilize student progress and goals in student and parent conferences

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EFFECTIVE FIRST GRADE LITERACY TEACHING TEAMS



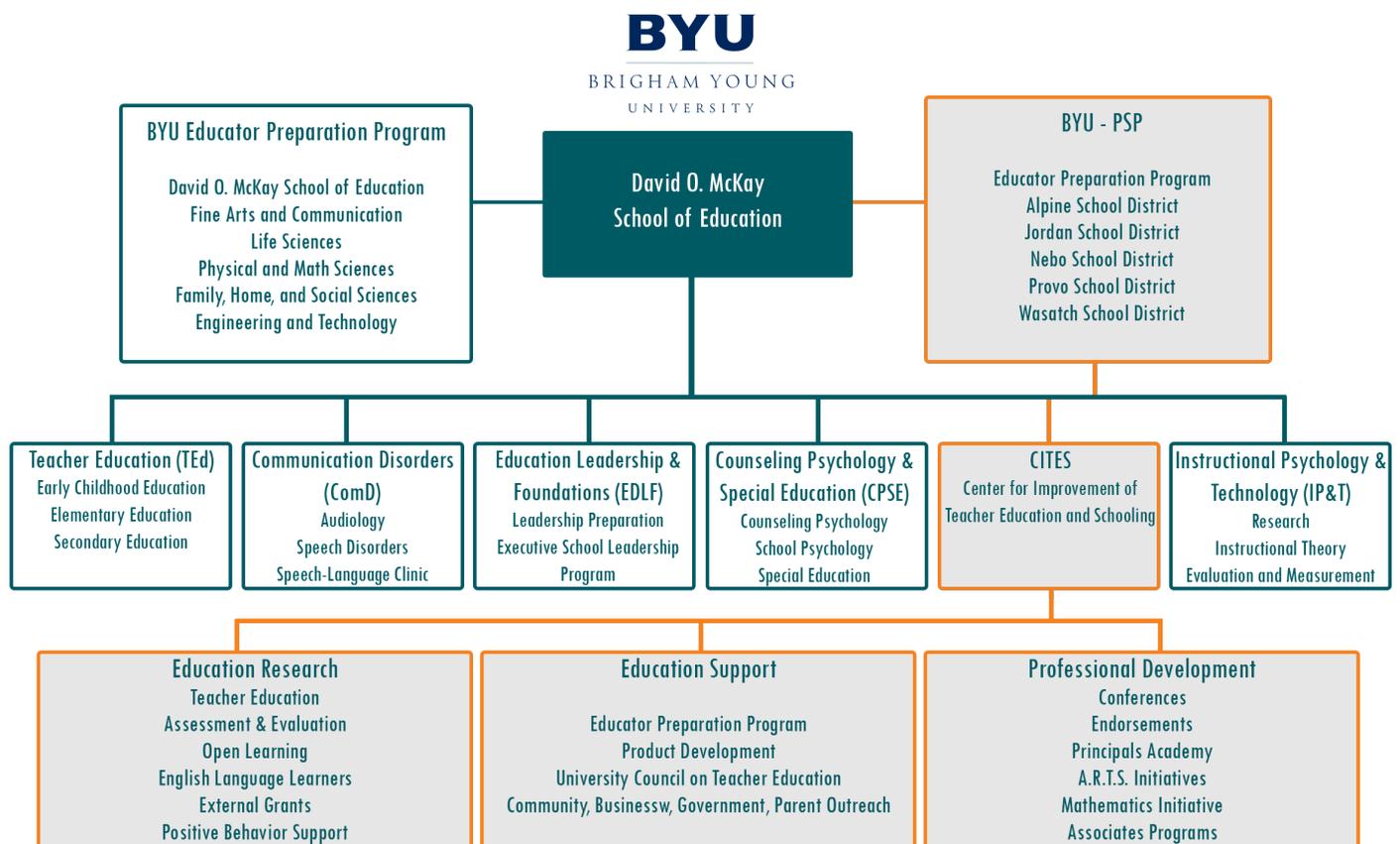
APPENDIX A

The Brigham Young University Public School Partnership (BYU-PSP) and the Professional Development Coordinating Council (PDCC)

The BYU-PSP was established in 1984 with a vision of “consistent collaborative inquiry, mutual reflection, and positive change involving both the university and public schools” (BYU-Public School Partnership, n.d.). The Partnership unites five public school districts, the David O. McKay School of Education, and the BYU colleges of arts and sciences that offer teacher preparation programs.

Several collaborative structures exist to support the Partnerships’ objectives. The Center for Improvement of Teacher Education and Schooling (CITES) aides in facilitating initiatives, programs, and committees that uphold and promote the values of the Partnership. The Professional Development Coordinating Council (PDCC) comprises CITES and BYU, along with district curriculum directors. They “collaborate on projects to improve teaching and learning, including teacher endorsement programs, conferences and workshops, and expanding capacity of educators to lead professional learning communities” (Wangermann, 2024, p. 18). This project, which examines highly effective teams, was developed and implemented through the PDCC.

To learn more about the beliefs, commitments, and collaborative structures of the PDCC, CITES, and BYU-PSP, visit <https://byupartnership.org/>



Source: <https://education.byu.edu/cites/leadership/organization>

APPENDIX B

Participant Demographics

	American Indian / Alaskan Native	Asian	Black / African American	Hispanic	Pacific Islander	Caucasian	Two or More Races	Economically Disadvantaged	Students with Disabilities	Multilingual Learners
State	1%	2%	1%	20%	2%	71%	3%	31%	14%	9%
Nebo School District	--	--	--	16%	1%	78%	3%	27%	14%	4%
Park View Elementary	n<10	--	--	13%	n<10	83%	n<10	25%	20%	3%
Alpine School District	--	1%	1%	15%	1%	78%	4%	20%	12%	6%
Springside Elementary	n<10	n<10	n<10	10%	1%	81%	5%	12%	10%	4%
Jordan School District	--	2%	1%	19%	2%	72%	5%	20%	14%	9%
Westland Elementary	n<10	3%	2%	17%	n<10	75%	n<10	29%	15%	9%
Provo School District	1%	2%	1%	31%	3%	58%	4%	39%	14%	18%
Westridge Elementary	n<10	n<10	n<10	19%	4%	69%	6%	34%	15%	13%

Source: 2022-2023 School Report Card
USBE Data Gateway

APPENDIX C

Sample Phonics Trajectory and Tracking
Nebo School District

Phonological Awareness, Phonemic Awareness, and Phonics Continuum

Phonological Awareness (K-1)	Examples
Word Awareness – How many words are in the following sentence?	We go outside and play. (5 words)
Rhyme Recognition – Do the following words rhyme?	split/splat (no) pound/sound (yes)
Syllables – How many syllables are in this word?	amazing (3 syllables)
Onset and Rime – What is the beginning sound(s) and ending part of the word?	stand Onset /st/ Rime /and/
Basic Phonemic Awareness (K-1)	Examples
Phoneme Identity – What is the (first) sound in the following list of words? (first/last/middle sounds)	First sound – phone, fall, fun /f/ Last sound – have, prove, live /v/ Middle sound – bid, win, fit /i/
Phoneme Categorization – What word does not belong here because it has a different (first) sound? (first/last/middle sounds)	First sound – fun, sing, phone Last sound – snake, slip, flop Middle sound – hop, sap, stop
Phoneme Isolation – What is the (first) sound in the following word? (first/last/middle sounds)	First sound – dog /d/ Last sound – dog /g/ Middle sound – dog /o/
Phoneme Blending – Blend these sounds to make a word.	/s/ /a/ /t/ - (sat)
Phoneme Segmenting – What are the sounds in this word?	bug - /b/ /u/ /g/
Advanced Phonemic Awareness (K-2)	Examples
Phoneme Deletion – Say this word _____. Now say it without this sound ____.	spark Take away /s/ (park)
Phoneme Addition – What would you have if you added this sound to the end of a word?	park Add /s/ on the end (parks)
Phoneme Substitution – Say this word _____. Change this sound to this sound. What word is it?	splat Change the /t/ to /sh/ (splash)
Phonics/Basic Decoding (K-3)	Examples
Sound/Letter Correspondence – What letter makes the /b/ sound?	The sound /b/ looks like this b .
Closed Syllable (CVC) Words – A single vowel followed by one or more consonants. The vowel usually makes the short sound.	beg, lid, mop, nut, cats
Digraph – 2 letters that work together that spell one sound.	chop, path, shop, phone, chick, wheel
2-3 Sound Blends – 2 or 3 consonant letters next to each other where each letter makes a separate sound.	brag, rest, slip, dentist, splash, scam
Trigraphs – 3 letter that work together to make one sound. (grades 1-3 only)	itch, patch, badge, bridge

Phonics/Advanced Decoding (1-3)	Examples
Open Syllable – A syllable that ends with a single vowel sound is usually long.	sky, banjo, robot, momentum
Schwa – An unaccented and unstressed vowel sound. The most common sounds are /uh/ and /ih/	wagon, extra, helmet, elephant
Vowel Consonant E (VCE) – A single vowel is followed by one consonant and the letter “e”. The vowel sound is usually long	cute, vote, sunshine, recognize
VCE + Schwa (grades 2-3)	palace, manage, festive
Vowel Teams (long vowel sounds) – 2 or more letters that work together to spell one vowel sound.	paid, stay feet, beat, brief, key sight snow, boat
R-Controlled Vowels – A vowel sound that is modified because it is immediately followed by a consonant sound /r/. (grades 2-3 only)	barn, fork, bird, turn, fern court, door, soar, carnivore, learn, early
Other Vowels (Diphthongs) - A variant vowel that cannot be categorized as long, short, or r-controlled. (grades 2-3 only)	loose, grew coin, employ found, scowl boot, flu
Consonant _le – A syllable that contains a consonant letter followed by the letters “le”. (grades 2-3 only)	buckle, icicle, tremble, gaggle
Latin Endings – Word spellings we get from Latin. (grades 2-3 only)	vacation, fusion, adventure
Hard & Soft c and g – 2 pronunciations for the same consonant. The soft sound is usually followed by ‘e”, “i”, or “y”. (grades 2-3 only)	city, vent, cite, cymbal, gel, fringe, giraffe, gym
Suffix / Inflectional Endings – A word part that is added to the end of a base word to make the word plural or change the verb tense.	faster, raining, rented, fixes
Consonant Suffixes – A suffix that begins with a consonant letter. (grades 2-3 only)	helpful, nameless, quickly, employment, contests
Vowel Suffixes – A suffix that begins with a vowel letter. (grades 2-3 only)	curly, cleaner, joyous, smallest, bunches, searching
Prefixes – A word part that can be added to the beginning of a base word or root word to change the word’s meaning. (grades 2-3 only)	disconnect, confront, unwind, incomplete, impossible, reread, preview, proactive
Three sounds of __ed – The suffix “ed” can make different sounds depending on the type of consonant at the end of the base word. (grades 2-3 only)	Sound /d/ added after a voiced consonant (bugged, rubbed, hummed) Sound /t/ added after an unvoiced consonant (packed, jumped, hissed) Sound /ed/ and an additional syllable added when the base word ends with the consonants t or d (rented, tended)
Closed Syllable Exceptions – A syllable that ends with a consonant where the vowel makes a long sound. (grades 2-3 only)	cold, wild, mind, jolt, most, foretold, childish, kindness, poster
Split Vowels – 2 vowels next to each other that make 2 separate vowel sounds in each syllable. (grades 2-3 only)	pi/ano, po/etic, ne/on, di/et

Where am I on the Nebo Phonics Curriculum?

Name: _____

Basic Decoding Skills	Examples
Sound/Letter Correspondence – What letter makes the /b/ sound?	The sound /b/ looks like this b .
Closed Syllable (CVC) Words – A single vowel followed by one or more consonants. The vowel usually makes a short sound.	beg, lid, mop, nut, cats
Diagraph – 2 letters that work together that spell one sound.	chop, path, shop, phone, chick, wheel
2-3 Sound Blends – 2 or 3 consonant letters next to each other where each letter makes a separate sound.	brag, rest, slip, dentist, splash, scam
Trigraphs – 3 letters that work together to make one sound.	itch, patch, badge, bridge
Advanced Decoding Skills	Examples
Open Syllable – A syllable that ends with a single vowel letter. The vowel sound is usually long.	sky, banjo, robot, momentum
Schwa – An unaccented and unstressed vowel sound. The most common sounds are /uh/ and /ih/.	wagon, extra, helmet, elephant
Vowel Consonant E (VCE) - A single vowel is followed by one consonant and the letter “e”. The vowel sound is usually long.	cute, vote, sunshine, recognize
VCE + Schwa	palace, manage, festive
Vowel Teams (long vowel sounds) – 2 or more letters that work together to spell one vowel sound.	paid, stay, feet, beat, brief, key, sight, snow, boat
R-Controlled Vowels – A vowel sound that is modified because it is immediately followed by a consonant sound /r/.	barn, fork, bird, turn, fern, court, door, soar, carnivore, learn, early
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Consonant Suffixes – A suffix that begins with a consonant letter.	helpful, nameless, quickly, employment, contests
Vowel Suffixes – A suffix that begins with a vowel letter.	curly, cleaner, joyous, smallest, bunches, searching
Prefixes – A word part that can be added to the beginning of a base word or root word to change the word’s meaning.	disconnect, confront, unwind, incomplete, impossible, reread, preview, proactive
Three sounds of -ed – The suffix “ed” can make different sounds depending on the type of consonant at the end of the base word.	Sound /d/ added after a voiced consonant (bugged, rubbed, hummed) Sound /t/ added after an unvoiced consonant (packed, jumped, hissed) Sound /ed/ and an additional syllable added when the base word ends with the consonants t or d (rented, tended)
Closed Syllable Exceptions – A syllable that ends with a consonant where the vowel make a long sound.	cold, wild, mind, jolt, most, foretold, childish, kindness, poster
Split Vowels – 2 vowels next to each other that make 2 separate vowel sounds in each syllable.	pi/ano, po/etic, ne/on, di/et
Multisyllabic – ability to attack words continuing multiple syllables from a combination of the continuum skills.	porcupine, hibernate, graduate, photographer, arithmetic, consumption



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