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Raising School Culture and Student Achievement Through a Focus on Writing

Executive Development Program Case Study #4

This case study illustrates how one principal's National Institute for School Leadership (NISL) Executive Development Program (EDP) experience and NISL coaching helped her to work toward improving school culture and student performance through writing instruction. The principal focused on building teachers' skills to teach critical writing—defined as writing across content areas that elicits deep thinking and makes such thinking visible so that teachers can identify any misconceptions students hold. This initial definition was later refined with teacher input. After taking the helm of the low-performing elementary school, the principal diagnosed it as having a culture of low expectations. She aimed to elevate teachers' conceptions of what students were capable of and raise the standard of assigned work. Specifically, she believed that meaningful writing assignments would increase student engagement and learning. The principal promoted the idea of the school as a learning organization to engage her staff in continuous improvement and build teacher capacity to teach critical writing. Moreover, she worked to internally align instruction, curricula, standards, and assessments. Although the principal had to navigate some contextual challenges at the district level and uneven implementation of critical writing across the school, over the course of two academic years, teachers appeared to have embraced the importance of challenging students to demonstrate their learning through writing. Teachers also reported an increase in student engagement. Finally, in the fourth grade, where teachers were observably the strongest early implementers of critical writing, the percentage of students who performed at the lowest level on the

Putting Professional Learning to Work

This case study report accompanies the report *Putting Professional Learning to Work: What Principals Do with Their Executive Development Learning* (available at www.rand.org/t/RR3082). The main report presents findings from part of RAND's evaluation of the National Institute for School Leadership Executive Development Program, a leadership program for sitting school principals. The evaluation included nine in-depth case studies to examine what improvement efforts principals attempted in their schools and what strategies they applied to reach their goals.

All the case study reports are available at www.rand.org/t/RR3082.

state assessment of reading fell by almost 10 percentage points. In mathematics, only about 15 percent of fourth-graders scored in that bottom tier, down from almost 50 percent the year before.

Overview

This case study features Megan Armstrong,¹ who was a third-year principal at the time she started the EDP. She drew on her 12 months of EDP experience and 1.5 years of NISL coaching to change the way teachers engaged students in writing at Horizon Elementary School (HES).

This is one of nine case studies RAND researchers conducted as part of an overarching study of the effects of the EDP and paired coaching on principal effectiveness and, ultimately, on student outcomes.² We selected the nine principals from among 26 best-practice candidates nominated by NISL. To read more about how we selected cases and our methods of analysis, please see the main report, *Putting Professional Learning to Work: What Principals Do with Their Executive Development Program Learning*, at www.rand.org/t/RR3082.

To describe the changes that occurred in HES, we first set the stage by describing the school context in the year before Principal Armstrong assumed leadership and her background and school improvement

efforts prior to participating in the EDP. We then describe how she developed her Action Learning Project (ALP), through which she applied the concepts learned in the EDP to her school. Following this, we describe the first and then second year of changes she implemented,³ highlighting the connections between her actions and core EDP principles and concepts (shown in the text boxes). After summarizing her accomplishments and plans for continuing the school improvement work, we conclude with a discussion of key factors that facilitated or hindered change.

The timeline shows the key activities described in this case study. The activities above the horizontal blue arrow are Principal Armstrong's individual actions, and those below are school improvement activities in which staff at HES engaged.

Context for Principal Armstrong's School Improvement Effort

As shown in the timeline, before starting the EDP in July 2016, Principal Armstrong led school improvement efforts at HES for three years, laying the groundwork for her ALP. She first assumed the role of principal at HES in 2013–2014. She brought almost 25 years of experience as a teacher, three years as a literacy coach, a year as an assistant principal (AP) (all within the school district housing HES), and a National Board certification in literacy.

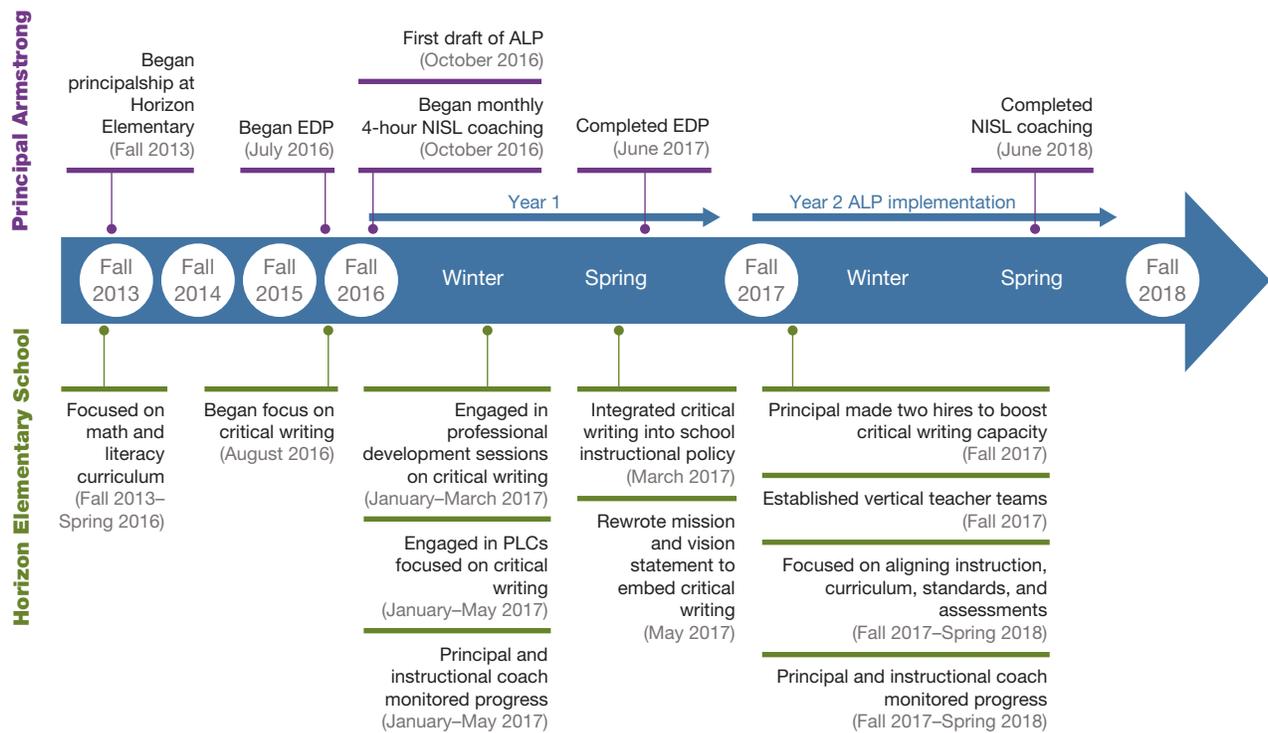
Upon her arrival, Principal Armstrong perceived that the school culture held low expectations for student achievement. She felt a lack of motivation on the part of the faculty, many of whom had a long tenure, and perceived that changes in the neighborhood and student background contributed to teachers' lack of confidence in students' ability to do grade-level work. HES was a Title I school serving a disadvantaged and changing student population. The neighborhood surrounding the school had been in transition, with an increasing share of incoming families who spoke English as a second language (ESL). In fact, the

¹ Names of individuals and schools are aliases to protect confidentiality.

² To gather perceptions of how Principal Armstrong worked to improve her school, we conducted a series of interviews and focus groups over two school years. We visited HES for day-long visits in April 2017 and April 2018 to individually interview Principal Armstrong and key implementers of her school improvement effort, including the school's instructional coach and a retired district writing specialist who delivered professional development; to conduct four focus groups with grade-level teaching teams; and to observe classes. In addition, we conducted hour-long phone interviews with Principal Armstrong in September 2017 and January 2018. At these four points, we also interviewed Principal Armstrong's NISL coach. Finally, in spring 2017, we interviewed Principal Armstrong's direct supervisor, an assistant district superintendent. The information we present within this case is drawn from our coding of transcribed interviews and focus groups and from school documents we collected. We note limitations in our data: (1) Our data were all qualitative in nature and mainly self-reports, and (2) because we spoke with selected individuals, their views may not necessarily represent the views of all staff at the school.

³ Throughout the case, *Year 1* refers to the school year (or part thereof) in which the principal first started implementing the ALP. *Year 2* and *Year 3* refer to subsequent years of implementation. Each year may not be a full 12-month year.

Timeline of Key Activities Related to Principal Armstrong’s School Improvement Effort



increase in the proportion of ESL students in HES from 2015–2016 to 2016–2017 was significant: from about 5 percent to 20 percent of the student body.

Situated in a large school district in Kentucky, at the time of this study, HES served approximately 400 students in prekindergarten through fifth grade. By the 2017–2018 year, which was the last year of this case study, nearly 50 percent of the students were African-American, about 33 percent were white, 10 percent were Hispanic, and the rest were Asian or identified as multiracial. About 90 percent of students qualified for free or reduced-price lunch.

The school had a faculty of about 25–30 teachers who typically taught both mathematics and literacy in self-contained classrooms, as well as one school counselor, one instructional coach, and one AP. The majority of faculty were veteran teachers, with only about 5 percent of teachers in their first or second year of teaching.

In her first three years at the school, Principal Armstrong focused on setting higher expectations for

mathematics and reading instruction and achievement. Although she had veteran teachers, she said that many teacher “appeared to have limited knowledge of best practices.” Thus, she first focused in 2013–2014 on implementing the mathematics and literacy curricula with fidelity, as prescribed in each teacher’s guide. Then she focused on having teachers adapt the curriculum as needed to address district standards—first for literacy in 2014–2015 and then for mathematics in 2015–2016. In doing so, Principal Armstrong began to cultivate a culture of professional growth. She tested and stretched her staff’s capacity for learning and oriented them to the school improvement process.

By spring 2014, the school moved from the bottom 5th percentile of schools in the state in test results into the 11th percentile. By spring 2015, the school had moved out of the bottom 20th percentile of schools statewide. Finally, in spring 2016, state test results saw a 6 and 15 percentage point increase in reading and mathematics, respectively.

Designing the Action Learning Project

Principal Armstrong started the EDP in July 2016, three years into her principalship, and finished it one year later in June 2017. Three months into the EDP, principals began the iterative process of designing and starting to implement an ALP.

NISL provided Principal Armstrong a National School Leadership Coach starting in October 2016. The coach is a retired area superintendent for the district and, like Principal Armstrong, had served as principal and taught in the state. The coach and Principal Armstrong met monthly for four hours each session, for a little over one and a half years, until June 2018. In the coach's in-person visits to HES, he reviewed concepts covered during the latest EDP session, attended various staff and professional development (PD) meetings with Principal Armstrong, conducted classroom walkthroughs with her, and advised on the ALP. Each session was guided by key questions the coach prepared in advance to further Principal Armstrong's thinking about her practice and EDP concepts. For example, the coach asked, "What data have your observations and walkthroughs provided you in terms of your teachers' instructional capacity over the past month?" and "How can you use the Strategic Thinking Framework to help you determine the work of the school's instructional coach to support student achievement and teacher efficacy?"

Using Data to Inform Focus of School Improvement Effort

When she first became a principal in 2013, Principal Armstrong had wanted to focus her staff on what she called *critical writing*, which she initially defined as writing across content areas that elicits deep thinking and makes such thinking visible so teachers can identify any misconceptions students hold. But she postponed this aim after determining that her teachers first needed to work on implementing the mathematics and literacy curricula. After three years of progress on these curricula, in fall 2016 Principal Armstrong decided her staff was ready to work on

EDP Core Concept

Effective instruction involves surfacing and addressing students' misconceptions to help students develop complete and accurate ideas.

critical writing. This decision coincided with her enrollment in the EDP and her work with the NISL coach to identify a topic for her ALP.

The EDP directed Principal Armstrong to examine data to make informed decisions about the design of the writing improvement effort. Principal Armstrong drew on three sources of data.

First, the persistent disappointing state test results confirmed Principal Armstrong's choice to focus on writing. Despite increases in reading and mathematics scores during the first years of her tenure, students' scores on extended response questions on state tests, which asked students to describe, explain, analyze, compare/contrast, defend, and synthesize ideas—in other words, engage in critical writing—averaged 1.5 on a 4-point scoring rubric. In fact, a subset of students did not answer the questions at all. Moreover, Principal Armstrong interpreted the fact that a large group of students across content areas scored "below proficient" to mean that students not only did not master the standards, they likely held misconceptions. To address these misconceptions, teachers needed a way to uncover students' thinking, and Principal Armstrong thought that writing was an obvious way to do this: "[Writing] increases the rigor dramatically in the classroom, [when] I can read something and then . . . form my own thoughts about that and then . . . communicate that back on paper."

Second, Principal Armstrong considered results from a NISL tool, the Diagnostic for High-Quality

EDP Tool

The Diagnostic for High-Quality Aligned Instructional Systems is a NISL tool that supports users in identifying the strengths of their school and areas in which the school requires further development to function at an acceptable level.

EDP Core Concept

High-quality aligned instructional systems have clearly designated points at which students must meet explicit standards to continue on specified pathways in their progression through school.

Aligned Instructional Systems. The tool identified a lack of high standards for students in writing at HES, inconsistent use of rubrics by teachers to assess student writing, and a lack of clear “gateways” for students in writing, meaning the grade-level expectations for students’ development of writing skills were unclear.

Third, Principal Armstrong drew on observational data she collected from performing regular classroom walkthroughs and informal evaluations. She gleaned several insights from these walkthroughs: Students were not deeply engaged in classwork, leading to misbehavior; students were not writing daily; writing was not consistently included in teacher lesson plans; teachers had no common language to discuss writing; and teachers rarely used writing rubrics.

Principal Armstrong consolidated findings from these three sources of data (test scores, the NISL diagnostic tool, and observations) to conclude that students had few opportunities in class to think critically about a topic or idea and write about it in ways that supported their learning. There was little clarity among teachers about what writing should be expected of students and how to guide students’ development in writing.

Developing a Vision and Strategies for Improving Learning Through Writing

Having identified critical writing as her ALP topic, Principal Armstrong set about developing an implementation plan. Principal Armstrong’s **vision** was to increase all students’ achievement *in* writing and *via* writing, particularly the type of open-ended,

content-learning-related writing that is cognitively demanding and elicits students’ thinking.⁴

Principal Armstrong believed that staff members—no matter where they were in their career—were capable of and willing to change. Improvements in reading and mathematics in the past three years attested to this. Furthermore, Principal Armstrong believed that the students were up for the challenge: “They haven’t yet been asked to do [critical writing]. We need to start asking them every day, all the time.”

In the EDP, principals also learned that they needed to identify a **strategic intent** in their ALP. Principal Armstrong’s strategic intent was as follows:

- If I create a culture of learning and if I offer PD experiences aligned with the critical writing priority, then teachers at HES will increase their capacity to intentionally and effectively incorporate critical writing into content area instruction.
- If I work to develop high-quality teachers and teaching, then instruction will become more student-centered, demanding, and engaging.
- If we (1) hold students to high standards, (2) consistently engage them in tasks requiring high-level thinking and clear communication of their ideas, and (3) deliver instruction that attends to students’ misconceptions and address them, then students’ conceptual understanding will deepen. Students will be more prepared to apply and demonstrate their academic knowledge and skills in a range of contexts, including but not limited to state standardized tests.

Next, Principal Armstrong identified **key strategies** for achieving her vision. Doing so required drawing on her understanding of the school context and the core values and assumptions related to the diagnosed problem, which was that students lacked the ability to describe their thinking in writing and that teachers did not use writing as a way to diagnose student misconceptions. Principal Armstrong’s NISL coach supported her by, for example, prompting

⁴ Terms in bold indicate key components of the ALP that principals were to develop and articulate.

EDP Core Concept

High-quality aligned instructional systems should set high standards for all students. All students should be expected to think deeply and critically and apply learned concepts to real-world problems.

her to identify elements of high-quality teaching and aligned instructional systems that needed to be strengthened.

Principal Armstrong had two theories about why writing was undervalued in the school. First, she suspected that teachers did not view writing as a tool to increase student learning of academic content. She noted that many seasoned teachers either believed writing ought to be taught separately from disciplinary content or felt that writing instruction meant teaching the writing process (i.e., drafting, revising, and proofreading portfolio pieces), absent consideration of the quality and depth of ideas. Second, Principal Armstrong sensed that teachers lacked confidence, knowledge, and skills with respect to writing instruction. In particular, newer teachers were at a loss because they had had little training and PD in writing. Principal Armstrong believed, however, that if teachers understood the value of writing and how to teach it, they would be doing more of it with their students.

Given her faculty's apparently weak knowledge of writing instruction, she first needed to achieve a common understanding of what critical writing is. From there, she wanted her staff to understand what critical writing looked like at each grade level and how to incorporate it routinely into their classrooms. Her key strategy going into the first year centered on PD for teachers.

Once she identified PD as the strategy, her NISL coach prompted Principal Armstrong to map out the concrete **action steps** she would take to put her plan into action and when these activities should occur. She determined, for example, the dates of PD sessions and staff meetings that would feature discussion of critical writing, as well as the key learning activities in those PD sessions.

Another part of the iterative ALP design process was to identify necessary **resources and supports** for successful implementation. Principal Armstrong's NISL coach encouraged her to articulate and clarify the role of key personnel supporting the change effort. In the end, Principal Armstrong determined that she would use some flexible funding to retain the expertise and support of a retired district writing specialist. She would also reallocate a portion of HES's instructional coach time to monitor whether PD was effective in bringing about changes in the classroom.

The First Year of Implementing the Action Learning Project

Principal Armstrong engaged in four main strategies to implement her ALP in the 2016–2017 school year. She shared her vision for school improvement with the staff to garner buy-in, established structures to support continuous learning, offered PD to strengthen teacher craft, and aligned the vision and mission statements of the school with the improvement effort. Taken together, her decisions and actions moved her staff from a baseline of weak understanding of critical writing and its importance to student learning to a clear understanding and strong commitment to integrating critical writing throughout the school's curricula.

Strategy 1: Sharing the Vision for Improvement and Promoting a Learning Organization

Principal Armstrong strategically introduced the focus on writing at a staff meeting in fall 2016. After highlighting test score gains in mathematics and reading from the prior school year, she segued with,

EDP Core Concept

High-performance organizations engage in continuous improvement. Effective leaders support building teaching capacity through a focus on the school as a learning organization. This includes engaging staff to take ownership of reform efforts.

EDP Core Concept

Effective school leaders garner buy-in from staff by helping staff recognize the need for the reform.

“Now, here is our next step.” By her telling, “You could feel all the air going out of the room” because the faculty thought they were doing well and felt the bar rising higher.

Principal Armstrong drew on her EDP learning to acknowledge their collective growth thus far but also emphasized the need for continuous improvement. She told the faculty, “We did great. But we have more work to do.” She believed that although principals generally understood this idea of continuous improvement, “we don’t communicate it to teachers. . . . There’s always a next step.”

Principal Armstrong had the advantage of staff buy-in based on the prior three years of growth. But to garner buy-in for her vision, Principal Armstrong presented it as something they were going to take on together as a school, rather than as a directive from her. Having introduced the idea of improving instruction and learning around writing, she engaged the staff in figuring out how they would implement changes. “Before [NISL], it might’ve been my tendency to just say, ‘This is what we’re going to do. . . . This is how it’s going to be.’” In fact, she recalled doing so with reading and mathematics initiatives. But this time, her approach was, “Okay, this is what we need to do. But how we’re going to do it, we’re going to [decide] together.” Many teachers accepted this approach, and one said, “It doesn’t ever feel like she is forcing things on you. It’s not, ‘This is what we’re going to do and there is no exception.’ She doesn’t go about it like that. . . . It makes everybody more willing to try.”

Strategy 2: Establishing Structures to Support Continuous Learning and Improvement

Principal Armstrong and her staff collectively agreed that they would engage in three PD sessions on critical writing with follow-up support through their grade-level professional learning communities (PLCs)

EDP Core Concept

High-performing organizations find time for teacher teams to meet and work to improve their craft.

that met each Wednesday after school hours. As Principal Armstrong said, “[We] know that PD one-shots don’t work.” Principal Armstrong also devoted a portion of the school’s instructional coach’s time to helping teachers implement critical writing, and she devoted additional staff meeting time beyond the PLCs to critical writing. But the PLCs were the main support for teachers to develop their instruction in critical writing. Because teachers set the agendas and led the conversations in the PLC, it was the way Principal Armstrong got teachers to take ownership of the work. As she said, “The ultimate goal is that I don’t have to talk about this critical writing anymore.”

Strategy 3: Developing Teacher Knowledge of Critical Writing

Building a common definition of critical writing, which was the main action step for Year 1, was no easy task. Three times in the year, teachers engaged in the following cycle. First, the retired district writing specialist delivered a three-hour PD session and follow-up PD sessions on critical writing during after-school hours. Second, teachers went back to their classroom and assigned their students a critical writing task. Third, teachers brought back sample student work to the next PLC. Fourth, teachers collectively refined the definition of critical writing at the PLC.

EDP Core Concept

In high-performing organizations, teachers have access to embedded and non-embedded professional development. This means that, in addition to participating in formal PD sessions, teachers experience opportunities for professional learning as part of their regular work. PD is driven by teachers’ and students’ needs.

The first PD session, in January 2017, started with a question: “What is critical writing?” Drawing on her NISL coach’s suggestion, Principal Armstrong included the use of concept maps as a visual tool for eliciting teacher’s initial thoughts about critical writing. Teachers developed an initial concept map representing their definition, and they quickly realized their definitions varied. For many, critical writing included the act of note-taking and completing fill-in-the-blank and short-answer worksheets. The writing specialist tried to clarify the definition, but some teachers admitted they left the PD session confused. Part of the confusion was due to messages from the district about writing. For example, the district used the language of “writing to demonstrate learning.” How was that different from or similar to their understanding of critical writing? Nevertheless, teachers were tasked with giving some critical writing assignments in their classes and bringing the results to subsequent PLC meetings.

At the first PLC after the January PD session, Principal Armstrong and the instructional coach recognized immediately that many of the examples of assigned tasks that teachers brought to the PLC did not represent critical writing. They asked teachers to examine the examples: “Is this critical writing? If it is, what does it reveal about student misconceptions and how we should adjust our teaching?” From the discussions and peer critique, the staff sharpened their definition and understanding of what critical writing entailed and continued to try to integrate critical writing into their classes.

Principal Armstrong debriefed and reflected on the PD and PLC sessions with her NISL coach. By posing questions such as “What have you learned?” and “What data have you collected to direct your next steps?” the NISL coach led Principal Armstrong through a performance analysis. Via this analysis, Principal Armstrong determined that her staff could

EDP Core Concept

A continuous improvement cycle typically involves developing plans for improving instructional practices, learning from a mastery teacher or expert, attempting to implement new practices, engaging in peer critique, assessing results, and course-correcting.

build the capacity to effectively implement critical writing but that they lacked confidence and belief in the value of critical writing.

In the second PD session, which occurred in February 2017, staff continued to sharpen their understanding of critical writing. The writing specialist engaged teachers in a sorting exercise. Teachers sorted different tasks, such as taking notes, writing a summary, completing fill-in-the blank worksheets, and writing a reflection based on audience and purpose. That activity, together with an examination of instructional resources and materials—for example, books on writing in science—helped teachers grow more confident in identifying critical writing in various content areas. Again, after the PD session, teachers returned to class to implement as best as they could.

Consistent with her goal to release responsibility and ownership to her faculty, in the final PD session in March 2017, Principal Armstrong selected groups of teachers to replicate the PLC conversations they had earlier in the month and attest to the strategies being valuable and effective in their classrooms, in addition to having the writing specialist present. This strategy helped affirm what the teachers were doing, gave them a sense of confidence, and established them as leaders whom others might follow. In fact, Principal Armstrong purposefully selected some teachers with influence among staff.

By the end of the third PD session in March, teachers agreed on the simple but helpful definition of critical writing as writing

- that illustrates a student’s thinking about what he or she is learning
- that asks students to explain something
- from which the teacher gets some information about the student’s understanding

EDP Core Concept

High-quality teachers have strong mastery of subject matter and teacher craft knowledge. Organizations should support teachers to develop in these areas.

EDP Core Concept

The leadership team consists not only of the principal and other administrators. Leadership should be distributed, with responsibilities allocated to teachers and other stakeholders in the school.

- that informs the teacher’s next steps
- that takes place across all content areas.

This definition had matured significantly from some teachers’ initial understanding. Moreover, the focus was on writing to learn and writing connected to content rather than producing publishable pieces of writing.

Principal Armstrong and teachers reflected on the long process for reaching this definition, deciding it was critical to the journey. She said,

It’s really taken long [to define critical writing], but I’m really good with that, because I think we’ve done it the right way. We didn’t say to them, “This is the definition.” Through their work, they have . . . come to their own definition, which has taken longer, but it’s much more important.

Staff members recognized Principal Armstrong’s deliberateness, with one noting,

She doesn’t say, “This is what you’re going to do.” She takes a lot of feedback from us. We kind of created the critical writing definition as a whole school instead of just her giving it to us. So, it’s a lot of teacher participation [and] ownership.

Another teacher, who was at first skeptical, realized:

The time and the experience and the input. . . . I think leads to a greater buy-in. I feel like, for me, it was very essential that I went through the painful nine hours. . . . Now I get . . . what [writing] does for those kids when it’s done correctly and they understand what it is you’re asking of them.

Strategy 4: Aligning Vision and Mission with the Improvement Effort

In addition to the PD sessions, Principal Armstrong took other opportunities to reinforce the importance of critical writing. She featured critical writing prominently in the comprehensive school improvement plan as a key strategy for increasing the number of students scoring in higher categories in reading and mathematics standardized tests. In her weekly memos to all staff, Principal Armstrong repeated messages about critical writing. One memo entry reminded teachers that “writing critically is simply allowing 3–10 minutes, depending on student age, to write about the learning in the lesson. . . . An easy way to start is to ask kids to identify, describe, or explain something at the end of reading and math each day.”

Toward the end of the year, Principal Armstrong recalled the importance the EDP placed on setting and communicating a shared vision. To summarize progress that year and set her staff up for the next, Principal Armstrong and her staff spent a day in spring 2017 revisiting the school’s vision and mission statements and their collective commitments to their students and families. Teachers helped to revise the vision and mission statements to incorporate students thinking critically, students communicating well, and students being engaged in their learning. According to Principal Armstrong, the formal changes to the mission and vision statements were due to the EDP:

It would not have occurred to me to say, “This is part of a bigger systemic piece that needs to be articulated in both [my] instructional practices policy and writing policy.” . . . As teachers retire and new teachers come in, that’s a piece

EDP Core Concept

With the input of stakeholders, effective leaders set and communicate a shared vision. They seek a commitment from all involved to work toward the vision, and they work to integrate that vision into the daily work and culture of the organization. These efforts help to support the sustainability of the transformation.

that's able to be leveraged: "At this school, this is what we do."

Principal Armstrong displayed these vision and mission statements at every staff meeting in the following school year. Principal Armstrong repeatedly connected whatever topic staff were working on with the mission and vision statements. She said, "I don't know that I would have gotten to that mission and vision [piece] . . . if not for NISL. . . . I wouldn't maybe have felt this sense of urgency."

The Second Year of Implementing the Action Learning Project

At the start of the second year of Principal Armstrong's ALP implementation, a new assistant superintendent arrived. He endorsed the book *The Fundamental 5* as the focus for instructional improvement district-wide.⁵ The book lists critical writing as one of the five practices that teachers should use to strengthen instruction and student performance. In this respect, Principal Armstrong's effort had district support. On the other hand, the four other practices (framing the lesson, working in the "Power Zone," engaging in purposeful small-group talk, and recognizing and reinforcing success) also demanded attention. While encouraging the other four fundamental practices, Principal Armstrong needed to stay focused and help her staff remain focused on her vision of critical writing. She enacted four main strategies to continue building staff knowledge and capacity and to better align components of the instructional system related to critical writing. With the help of her NISL coach, she continued to deepen her understanding and application of core concepts of leadership and strategically plan for further implementation of her improvement effort.

⁵ Sean Cain and Mike Laird, *The Fundamental 5: The Formula for Quality Instruction*, CreateSpace Independent Publishing Platform, 2011.

Strategy 1: Boosting Staff Capacity

Going into her second year implementing the ALP, Principal Armstrong thought deeply about making the most of the few hires she had to make. In making selections, she was guided by the school vision and mission statement that the staff had developed at the end of Year 1. Fortunately, the positive school culture and high expectations for staff and students attracted quality educators. Two experienced and strong teachers applied to transfer to HES. Principal Armstrong hired them and moved one into first grade to strengthen her first-grade team. She had a conviction that students needed to finish first grade with very strong basic literacy skills, or they would have a difficult time catching up. The other hire was for the librarian position. Six weeks into the school year, Principal Armstrong reported that the librarian was "doing more writing with our kids in the library in six weeks than I've seen in four years." The librarian engaged students in the literacy standards on which the teachers were working. For example, to reinforce standards regarding informational text, second-graders used library resources to learn about an animal and then created posters with paragraphs they wrote about their topic.

Strategy 2: Strengthening Alignment of Instructional System Components

Principal Armstrong led staff in examining various components of the instructional system—instruction, curriculum materials, standards, and assessments—to better align them. She did this in several ways at the first all-staff PD opportunity. First, she had faculty examine standardized test scores and reflect on their instruction of critical writing so far: Were there links between teacher efforts and student scores? Were they doing more critical writing and deeper thinking with students? What further adjustments in

EDP Core Concept

In a high-quality instructional system, key components—standards, curriculum and materials, instruction, assessments, and PD focus—are aligned.

instruction did they need to make? Second, Principal Armstrong followed up on an issue from the prior year concerning teachers not selecting challenging English language arts (ELA) texts for students to write about. She prompted teachers to examine the ELA state standards and to question their strict use of the district-prescribed reading program, because it was not sufficient to meet the state standards. Third, Principal Armstrong asked teachers to identify some of their typical practices and why they were incompatible with the vision of critical writing. Through this exercise, teachers realized, for example, that having students copy notes, complete worksheets, and read basic texts were not activities that elicited students' deep thinking. Principal Armstrong challenged teachers to raise their practices to set a new normal.

Having developed a schoolwide definition of critical writing in the prior year, Principal Armstrong now challenged her faculty in Year 2 to identify observable "look-for's": How would they know whether they were implementing critical writing well? What did strong critical writing look like? Although Principal Armstrong already had her own list of look-for's, she strategically asked staff to develop their own list as a way to develop buy-in and to build staff capacity. Finally, staff spent time creating or identifying common formative assessments in grade-level teams for each subject area, and nearly all groups created assessments requiring critical writing.

Notably, although low state test scores served as an impetus for the schoolwide focus on critical writing, through this improvement process, Principal Armstrong chose to emphasize high-quality teaching, not teaching to the test. As she said:

I'm leaving [the test] aside because I believe very strongly that if what we do is research [-based], we will be fine on the state test. The thing that we can never control is which way the wind blows with state testing. . . . To do anything that is geared specifically at a number on a state test is going to leave us lacking and our kids lacking. . . . So, to me, it's about what is the standard? Can our children meet that standard? And how will we know that for sure?

Strategy 3: Evolving Additional Structures to Support Deeper Learning and Improvement

In fall 2017, with the guidance of her NISL coach, Principal Armstrong adopted a NISL process that required reflection on her ALP goal to identify factors that were moving in the right direction and factors that were holding back progress. In doing so, Principal Armstrong realized there was still a lack of alignment in critical writing expectations in various subject areas, so she installed a new structure in the fall. She designated the last staff meeting of each month for teacher-facilitated meetings that included teachers from different grade levels. She referred to this structural reorganization as *vertical alignment*.

To these new vertical team meetings, teachers brought critical writing pieces their students were working on and examined as a team whether they saw progression across grades and whether the progression made sense. They found, for example, that second-grade teachers were not demanding writing of as high of a quality as their first-grade colleagues. The school's instructional coach also relieved teachers from class, allowing them to observe a teacher from the grade above or below to understand what critical writing looked like at that grade level. Stemming from this work, Principal Armstrong decided the next step for teachers was to identify and post models or benchmarks of what high-quality critical writing looked like for both staff and students to refer to.

Altogether, the vertical team meeting not only helped to create greater alignment and coherence across grades, it also was a strategic mechanism for growing staff accountability for engaging in critical writing practices. As Principal Armstrong explained:

The ultimate goal as a principal is that my teachers be able to hold one another accountable for this, and that's part of the vertical

EDP Core Concept

High-performance organizations have a benchmarking culture. Priority is placed on identifying best practices within and beyond the organization.

EDP Core Concept

To support school change, seek and develop alignment and coherence across grades and subject areas.

teaming. . . . It's them . . . knowing they're going to have to bring whatever standard, whatever critical writing it was that happened at that grade level [to the team], and they're accountable to their peers for doing that.

Evidence of Progress

Principal Armstrong and her instructional coach monitored progress in teacher learning in several ways over the two years of the ALP implementation. In the PLCs, they noted that an increasing proportion of the student work samples that teachers brought in met their definition of critical writing. Teachers' confusion also lessened over time. Several teachers noted that, over the course of the first year, they gradually learned that writing was "not a product; it's a tool." They also gained the perspective that writing was a good window into what students were confused about, which could then help teachers modify subsequent lessons. One teacher provided a specific example:

In math . . . you really think you are aware of who has it and who doesn't, but once [students] have to write and explain why something is the way it is, why it's an equilateral triangle . . . you go, "Wait a minute, no, this is not why at all." They guess really well . . . but to be able to explain it is a deeper learning

Principal Armstrong and her instructional coach also conducted informal classroom walk-throughs. As time went on, they gradually observed more open-ended writing assignments and fewer worksheet-centered activities, particularly in mathematics, where implementation was strongest. In mathematics, for example, instead of providing students with a worksheet with ten questions, some teachers gave students one question on one sheet of paper, asking them not only to solve the problem, but also to explain how they arrived at the answer

and describe another way they could have solved it. In reading, instead of pausing during read-aloud to call on a few students to answer quick questions to gauge comprehension, the fourth-grade teachers posed higher-order questions that required inference or analysis to which all students in the class then had to write their responses. The principal and the coach noted variation in implementation, however. In particular, Principal Armstrong assessed the second- and third-grade teams as "not completely there." One teacher, for example, had students look at a picture and write a compare-and-contrast paragraph based on superficial observations; the coach remarked, "I wouldn't call that critical thinking. . . . [Students are] not going back to the text and working the text into their writing."

Testament to teachers' overall enthusiasm and ownership of critical writing came in March 2017, when the teachers decided that they wanted their school-level instructional policy to mention critical writing. Presented to and signed off by the school-based decisionmaking council, the school-level instructional policy guided instruction for the school. The staff also developed a writing policy, committing to engaging students in critical writing and monitoring progress in this area.

Teachers reported seeing an increase in student engagement and enthusiasm because students had more opportunities to have their voice heard—on paper:

When we shared [ideas verbally], they don't all get to share. [Now], they're all getting their thoughts down and thinking through the story. They know I'm going to come around and look it, so they know I'll see what they have to say. They loved it.

EDP Core Concept

Effective school leaders are visible and present in the school improvement process, particularly in a coaching role. For example, they attend professional learning meetings and make frequent, informal classroom observations for the purposes of identifying opportunities to mentor teams or individuals and of improving one's own leadership practice.

EDP Core Concept

Beyond designing and driving the change process, effective leaders think about and take steps to sustain transformation through capacity and commitment. Formally institutionalizing reform principles—for example, through vision and mission statements and policies—helps to make change last.

One teacher related that her students “hated” writing at the beginning of the year. Through the repeated emphasis on writing, students had now become less intimidated and more accustomed to it: “It’s not a fight anymore. . . . It kind of improved their engagement.”

Beyond engaging students, one teacher noted that students demonstrated “deeper and more complex thinking. . . . Just because they write every day, they’re becoming more advanced with it.” Students realized that teachers were now less concerned about errors in mechanics or assigning grades: “With critical writing, that’s not really the focus, so it kind of took the pressure off of them. So, it made them a little more excited for it.” In addition, Principal Armstrong and some staff also attributed a decrease in student behavior referrals to the introduction of critical writing. Specifically, Principal Armstrong noted that having students write (and talk) at a higher level was more engaging than the “traditional” approach of having students answer questions via fill-in-the-blank worksheets. She observed that when students were engaged, they were less inclined to exhibit disruptive behavior that warranted an office referral.

Finally, some quantitative data at the end of the 2016–2017 school year pointed to potential early impacts on student achievement, although we cannot claim the relationship is causal. For example, on the state mathematics test—the content area where teachers appeared to have implemented critical writing most frequently—the proportion of students in the

bottom scoring category declined from 28 percent in the year prior to 23 percent. More impressively, only about 15 percent of fourth-graders scored in that bottom tier, down from almost 50 percent the year before; fourth-grade teachers were observably the strongest early implementers of critical writing. In reading, there were no overall changes, but in the fourth grade, the percentage of students scoring in the lowest category dropped by almost 10 percentage points.

Plan for Upcoming Years

In the spirit of continuous improvement, Principal Armstrong made plans for future PD and supports. Principal Armstrong and her instructional coach recognized that teachers needed more opportunities to share lesson plans. Furthermore, HES would receive laptops for student use next year, so a key question was how the laptop initiative might support critical writing. Principal Armstrong further strategized about staffing and resources for the following year. She considered, for example, which teachers were doing well in implementing critical writing and how to reassign them across grade levels and subjects to better build the capacity of all teachers.

Although there were anecdotal accounts of positive changes in teachers’ instruction and student engagement, Principal Armstrong had not systematically monitored and tracked critical writing or collected outcomes data. As the instructional coach admitted, “I’m not so sure that we have any one thing that I can pull out and go, ‘Here’s my evidence of why I think every teacher is doing a really good job with this.’ So that’s something that we can work on for next year.” Moreover, although state test scores rose, it remained to be seen to what extent the critical writing effort contributed to those results and whether it would contribute to future changes in student scores on the state assessment in writing and other subjects.

Factors That Facilitated and Hindered Change

Facilitators of Change

Our analysis suggests that the successes experienced by Principal Armstrong and her staff were largely attributable to some key facilitators:

- **Early efforts to cultivate positive school culture.** School staff felt that the change effort was successful because Principal Armstrong took the time to cultivate teacher capacity and a positive school culture oriented toward learning and improvement. As a result, teachers respected her and trusted her judgement and leadership. As a staff member said, “[She] took that first year to really get to know the staff and what their capacity was for learning. . . . She knew what our staff was ready for and what they weren’t, and she always made sure they knew what they needed to know.”
- **Principal’s instructional credibility and leadership.** Principal Armstrong had credibility as an instructional expert with about 25 years of teaching experience and a National Board certification in literacy. As one teacher said, “[She] is instructionally sound. . . . If she knows anything, she knows instruction. . . . So, when she says, ‘We’re going to try this; this really works and here’s the research to back it up,’ we really believe her.” This credibility was also important because Principal Armstrong acknowledged that union contracts could have posed a challenge to her professional learning plans. Specifically, PLC time was supposed to be driven by issues teachers wanted to discuss; principals were not to dictate how teachers should use the time. In fact, the contract stated that if a principal used PLC time for her agenda, she should compensate for it by canceling a future meeting, such as a staff meeting later that week. In this case, because Principal Armstrong had earned the trust and credibility of her staff and invested in helping teachers understand the importance of critical writing, teachers did not perceive the PD as something the principal was mandating.

Rather, they recognized the need to devote PLC time to critical writing and did not challenge Principal Armstrong’s plans.

- **Guidance of NISL coach.** Principal Armstrong benefited from the overall guidance the NISL coach provided throughout the critical writing–focused school change project. The coach was particularly effective in suggesting that she take time during the school day to stop and reflect on the question: “Are we still on that path or have we let other things take over?” During every interaction, prompted by her NISL coach, Principal Armstrong revisited the NISL concepts such as the NISL Wheel. Reviewing the NISL reflection and strategy steps helped Principal Armstrong crystallize her next steps. For example, in a coaching session, she articulated that her teachers were at a point of trying to implement critical writing but that critical writing was not naturally embedded and not fully embraced at a deep level. This led to the recognition that it was important to ensure that teachers knew how to implement critical writing and how to evaluate students’ efforts.

Challenges Hindering Change

The change process was not without challenges that Principal Armstrong needed to navigate:

- **Competing district priorities.** A major implementation challenge was staying consistently focused in the face of perceived competing priorities. Principal Armstrong said, “What I know for sure is if that we are able to consistently keep this focus, we will make huge gains for our kids. So, a challenge is being able to filter . . . when there’s a million other people and items competing for time and attention.” For example, a new assistant superintendent had a vision that all the schools in the district would make *The Fundamental 5* a focus for school improvement. Critical writing was among the five practices, but the NISL coach was concerned that Principal Armstrong would lose her focus when she tried to address

the other four principles. The coach helped Principal Armstrong stay on track by focusing on the critical writing improvement effort during the monthly coaching sessions. Principal Armstrong was able to keep her focus because although there were strong district recommendations for attending to all five fundamental concepts, there was no direct accountability for implementing them. In turn, Principal Armstrong attempted to inoculate her staff against potential changing tides:

What I communicate to staff all the time is if we're doing the right things, and it's based on research . . . we're not flip-flopping around every time the state [or the district] decides they're doing something different. . . . I believe that you have to pare down your initiatives. Do the ones that really matter and let the rest of them go.

- **Other district context issues and limitations.**

The staff eventually reached agreement on the definition of critical writing, but some teachers struggled to reconcile this definition with messages from the district. For example, was what the district referred to as “writing to demonstrate learning” the same as critical writing? And given the assessment culture they were in, teachers were unclear about whether it was permissible to use student writing solely as formative assessment to inform their instruction, rather than for official student grades for the course: Did they need to grade all student writing in a summative way? Principal Armstrong admitted that she needed to better support teachers to reach a resolution. In addition, samples of student work, or benchmarks for proficiency, were not available as guidance from the district. Staff at HES had to generate their own tools to track students’ progress in critical writing.

- **Uneven implementation.** Another challenge was teachers’ uneven implementation of

critical writing practices. As mentioned, many teachers were not quite implementing critical writing across content areas. And some grade-level teams were stronger than others. Although there were opportunities to share across grade levels, by the end of the year, teachers were largely unsure of what critical writing looked like in other grades. More vertical team discussions were needed.

- **Missed PD for new hires.** Finally, Principal Armstrong acknowledged that although she hired some strong teachers who seemed to be implementing critical writing, they did not have the benefit of the three days of PD from Year 1, when staff wrestled with the definition of critical writing and why they were focusing on it. The instructional coach helped to provide implementation support, but, as Principal Armstrong articulated:

It's hard. You get systems in place. Everybody's on the same page. We know why we're doing this. We've had all the conversations about why, and we're headed this way. Then, you have all these new people come on, which is fantastic, but they don't get the benefit of the why. So they're implementing without full understanding of the background.

Conclusion

The trajectory of Principal Armstrong’s school improvement effort was clear and similar to that of other principals in our case studies. She leveraged the relationships and trust she had built with staff in the years preceding her ALP to introduce her vision of improving students’ opportunities to write school-wide. Early on, she implemented a variety of professional learning structures—expert-facilitated PD sessions, principal-led staff meetings, teacher-driven PLCs, and instructional coaching—to cohere staff around a common vision. Later, to help teachers standardize the desired practice of making regular use of critical writing tasks, she increased transparency around instruction by implementing vertical team meetings, encouraging teachers to share student

work, and facilitating peer observations. In the second year, to deepen the improvement effort further, Principal Armstrong sought to better align curriculum materials, standards, and assessments to the instructional shift teachers were making regarding critical writing. Along the way, Principal Armstrong distributed leadership, establishing teachers as professionals and identifying experts within the building to share and model practices. Teachers indeed began taking ownership of the initiative by suggesting that

the school's instructional policy be updated to reflect the focus on critical writing. Principal Armstrong also made strategic hiring and staff assignments to strengthen staff capacity to carry out the change. In all, Principal Armstrong grew teachers' professionalism, capacity, and ownership and established a culture of learning in her school. Although the work was ongoing and challenges remained, early evidence suggested an increase in student engagement and a deepening of student learning.



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