Curriculum as a Tool for Changing Teacher Practice

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Abstract

Curriculum is often at the center of school and district efforts to transition to the new, more rigorous Common Core State Standards. These new adoptions are taken on with the hope that the new curriculum will ensure students develop skills and learn content that will ready them for the challenges ahead. Research has shown that in many respects the adoption of quality curricular materials can be a significant accelerator for student achievement. Because curriculum lives at the intersection of teacher and student experience, the usefulness of curriculum cannot be for student achievement gains alone. Curricular materials, expert support for collaboration, and dedicated time for content-specific professional learning are also cited as key indicators of an increase in professional learning among teachers. Curriculum therefore is not just a tool for improving student outcomes, but also a tool for changing teacher practice. This action research looks at the impact that a newly adopted curriculum and specific district and school supports had on teachers' ability to support students to elaborate in written and oral responses, to engage with higher order thinking tasks, and use protocols to support collaborative student work.

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Context and Problem of Practice

The problem of student underachievement in the Bay Area School District (BASD)[1], an urban school district in California serving 36,000 students in 86 schools, is a snarl of different inter-related and entrenched issues. For years it has been a reality that our young people, particularly our black and brown students from low-income communities, fall short of grade level expectations. And this trend only worsens as students rise through the grade levels. A student that is only 1 year behind in 3rd grade may become 3 or 4 years behind by 8th grade. The new standards have provided an new opportunity for BASD to take on the task of addressing the gap in student achievement and opportunity.

Since the Common Core State Standards were adopted by California in the summer of 2010, districts and schools have worked hard to support leaders, teachers, and students to bridge the divide between the old standards and the new, more rigorous ones. BASD serves over 36,000 students. 76% receive free or reduced lunch, 26% are African-American, and 41% are Latino. Though the new Common Core State Standards are already 7 years old, BASD is still struggling to successfully navigate the transition to these new expectations.

2015 was the first time student performance on the CCS Standards was measured. The results showed that BASD was far behind the state and county, and even under-performing other like districts on the SBAC ELA assessment. According to the CAASPP website, BASDs performance on

[1] The names of the District, schools, and participants have been changed to protect their anonymity.

the ELA SBAC showed that 29% of students met or exceeded standards in 2015, and in 2016 there was only a 1% increase. In comparison, the state average was 44% in 2015 and 49% in 2016, an increase of 5%. And the Alameda County average was 52% in 2015 and 56% in 2016, an increase of 4%. These comparisons, since they are aggregates of many different schools with very different demographics, can often be an unfair comparison. However, when BASD is compared to a District with similar demographics in terms of income and ethnicity, they still lag far behind. Sacramento City Unified is considered a "like district" by Ed-Data and outperformed BASD by 5% on the ELA SBAC in 2016, growing from 29% in 2015 to 35% in 2016. The lack of growth between 2015 and 2016 suggests that BASD has not significantly changed its academic program to meet the demands of the CCSS.

The academic performance of students in the middle grades (6-8th grade) in BASD is either at or below the overall average student in BASD. According to numerous researchers and literacy experts, the field has assumed that the focus for literacy instruction should be in the primary grades and that the most important literacy goal is to meet grade level standards by third grade (Sparks, 2015, Gewertz, 2015, Chall, Jacobs, and Baldwin, 1990, Goodwin, 2011). This has led to a significant investment in elementary literacy, and some national gains on the 4th grade NAEP. However, the gains in 4th grade have not led to any significant changes in the literacy rates for 8th or 12th graders (Snow and Moje, 2010). In an effort to address this persistent and renewed academic challenge locally, BASD identified two root causes: a lack of curriculum aligned to the CCSS and a high rate of teacher turnover in these grades. It had been a decade since the District adopted a middle school curriculum, and since then middle school teachers were largely left on

their own to develop materials or adapt textbooks to meet CCSS standards. One District leader found that “While this freedom has led to the development of innovative and compelling units, this curricular ‘Wild Wild West’ has not given clear guidance or support to our relatively novice teacher population.” Relatedly, teacher turnover in the middle grades is nearly double (33%) the rate of the overall District average (18%). Approximately 70% of new middle school teachers do not last more than 3 years in BASD.

The combination of significantly underperforming students, an outdated curriculum, and largely novice teacher population led the District to adopt a new curriculum for the 2016-17 academic year. District leaders believe that the quality curriculum will increase student achievement and teacher retention. In preparation, BASD did significant work creating community investment in the adoption process, but did little to plan for a multi-year implementation strategy. The District's approach to the curriculum adoption focused largely on getting the right program and did not develop a clear vision for the long term outcomes or road map to get there. According to teacher and leader interviews, it’s clear that BASD has a history of piloting or adopting programs (e.g. Holt in 2010-2013, Springboard in 2013-14, Amplify in 2015-16) and not maintaining them beyond 1 or 2 years. At the root of the recursive cycle of curriculum adoption, implementation, and abandonment is the fact that the District fails to adequately plan, train, and monitor implementation after the adoption of a new program.

The District tends to leave the complex work of implementation to chance, looking to school leaders to facilitate the transition to a new program. Either principals or teacher leaders often

do not have the dedicated professional learning time to develop their own skill and knowledge, nor that of their colleagues. In addition, the District has no clear arc of development toward full implementation of these complex programs. In the absence of an incremental set of goals, staff and leaders assume that 100% fidelity is expected in Year 1. This lack of clarity leads to frustration for both teacher and leaders: teachers because they don't know what to focus on, and leaders because they don't know what to look for. At the core is a lack of clarity about what it means to implement something new, and in the absence of this schools drift back to what is most comfortable and do not significantly change content or instruction. Without a more dedicated and disciplined approach to implementation, no adopted program or curriculum will ever take root and help change outcomes for students. This is not something that we can leave to chance.

The core problem in essence is that teacher practice and curriculum materials in the middle schools are not providing adequate instruction to students in ELA. Curriculum and instruction is not aligned to standards and not aligned within or across grade levels, because students are served by a majority of novice teachers that lack the experience to develop their own curriculum or veteran teachers that have not have received training on the new standards. At the middle school instructional leadership team retreat, school leaders identified their problem of practice in the following way: Data from walkthroughs indicate that students are not elaborating frequently, not engaged with higher order thinking conversations, and not using protocols to collaborate in text-based tasks. These were the three key instructional practice that

leaders identified as most in need of improvement. Student Achievement Partners identifies 3 core instructional practices to ensure alignment to the CCSS in the following way:

- **Core Action 1**: Focus each lesson on a high-quality text (or multiple texts).
- **Core Action 2**: Employ questions and tasks, both oral and written, that are text-specific and accurately address the analytical thinking required by the grade-level standards.
- **Core Action 3**: Provide all students with opportunities to engage in the work of the lesson. (2016)

Core Action 2 and 3 clearly align directly with the practices that principals in BASD middle school identified in the problem of practice. **The absence of key practices - student elaboration, higher order thinking skills, and collaboration protocols - suggests that teachers are not providing instruction that is aligned to the standards.**

I have developed this action research project to support the initial year of implementation of the adopted ELA curriculum for the middle grades, which is Expeditionary Learning curriculum. My hypothesis is that if we use the adoption of the new curriculum to increase both standards aligned content and instruction, then we will see both an improvement in student outcomes and teacher development. Through specific implementation goals, learning walks, and expert coaching support, we will see a change teacher practice and student achievement. Three specific instructional practice were targeted: support student elaboration in oral responses, increase in higher-order thinking questions, and increase in the use of collaboration protocols. All of these practices are integrated into the adopted curriculum and the CCSS core instructional

practices noted above. As the BASD Secondary Literacy Coordinator, this project will include working with all 21 schools that serve students in grades 6-8, coordinating with Network Superintendents and the Expeditionary Learning curriculum coaches, and collaborating with the BASD Middle School Literacy Specialist.

Literature Review

The following literature review seeks to summarize current research and theory related to the work of this action research, which is to positively impact teacher instructional practice by implementing a high quality ELA curriculum across all 6-8th grade classrooms. This section begins with clarifying the working definition of curriculum that we will use over the course of the study and the significance that curriculum has for students, teachers, and districts, specifically related to improving student outcomes and teacher practice. Then we turn some of the significant debates regarding design and implementation of curriculum. I found that regardless of the pedagogical stance toward design and development of curriculum, the role of the teacher and the work of supporting practice in relationship with curriculum is important regardless of who designs it. And I found that quality curriculum that is aligned within and across grade level is most important to impacting students and teachers. Lastly, I looked at the best approach to curriculum implementation, the challenges that occur, and implications for the work in BASD. What stands out in this is that there is consistent evidence that quality curriculum matters.

What do we mean by curriculum?

If we were to listen in on a group educators talking about their work, we would inevitably hear them talk at some point about curriculum. One teacher may gesture to a set of books in the room, another may refer to a series of activities, and another may refer to the school's general student outcomes. Implicit in the different definitions of curriculum are the values that teachers have toward what and how they teach. It is in essence the expression of what we mean by a good education (Wiles, 2009, Glickman, Gordon, and Ross-Gordon, 2009).

Curriculum, like many of the most important things in education, seems to elude a common definition. However, there does seem to be two ways that people talk about curriculum: it is either prescriptive or descriptive (Glatthorn, Boschee, and Whitehead, 2009). One is a list of what "ought" to be taught according to experts and the latter offers a picture of the learning experiences of students within the classroom. Within these two poles there are more nuanced definitions. For example, Glatthorn claims that there are four types of curriculum that fall within in basic matrix of high to low importance in terms of content, and high to low structure in terms of design. He describes these four types as mastery curriculum (high importance and high structure), organic curriculum (high importance and low structure), teacher-determined enrichment curriculum (low importance and high structure), and student-determined enrichment curriculum (low importance and low structure). Curriculum can be created from those outside of the school setting, such as policy makers or content experts, or from within, by teachers or local specialists (Glickman et al, 2009). What's most important is that leaders and

teachers are conscious of how they define curriculum, because this definition shapes the leadership stance one takes toward it (Wiles, 2009).

The stance that teachers and leaders take toward the curriculum is significant, because curriculum is not merely the stuff of learning, but it is also how teachers and students interact with these materials. Glickman et al claim that there are 3 different orientations toward curriculum: transmission, transaction, and transformation. These terms were developed by Miller and Seller (1985), and demonstrate that curriculum is not merely about what will be taught but how teachers deliver instruction, support student learning, and more importantly make instructional decisions (Glickman, p285).

In defining curriculum, some of the literature only refers to the curriculum materials, which creates an inherent dilemma (Cohen and Ball, 2009, 1995, Valencia 2006, DuFour and Marzano, 2011). The content of learning cannot be separated from teachers and learners. Research has shown that curriculum, regardless of the type or the stance educators and students have toward it, can be looked at through two lens: the intended curriculum and the enacted curriculum. Intended curriculum is what is written by the designers or authors of the materials, and enacted curriculum is what actually occurs in the classroom (Penuel, Phillips, and Harris, 2014). One other important thing to note, is that the research does not distinguish between teacher-created curriculum and industry-created curriculum or “mandated” curriculum when discussing the gap between intended and enacted curriculum. A more nuanced exploration of this distinction is beyond the scope of this research, but it’s important to note that education

research has focused primarily on the impact of the intended curriculum and not on the enacted curriculum, because of the innumerable factors, such as context, disposition, and experience of teachers and schools are difficult to measure, to say the least (Remillard, 2000, Rowan, 2004).

Many dimensions of curriculum came to the surface as I sifted through the literature looking for a comprehensive definition. The design of curriculum, the stance or orientation people have toward the curriculum, and the actual use of curriculum all come into play as we seek to clarify this key term. These many layers of meaning associated with curriculum make it difficult to be concise and also accurate. For the sake of this study, I have decided to use Ball and Cohen's early definition first cited in their seminal article on reform and the role of curriculum, because it emphasizes the connection between teacher, student, and content that is at the heart of the instructional core (City et al, 2014). In the 1996 article, they emphasize curricular materials -- in contrast to standards, framework or assessments -- as the most critical aspect of curriculum: "They are the stuff of lessons and units, of what teachers and student do. That centrality affords curriculum materials a uniquely intimate connection to teaching" (6).

The what and the how of instruction are interdependent and mutually reinforcing. Since this action research project seeks to understand and execute on changing teacher practice through the support and use of curriculum, it's important that we hold a definition that attends to both the quality of the materials and the way that practitioners and students interact with these materials.

Why does curriculum matter?

On a fundamental level curriculum is important because it "influences instructional capacity by constraining or enabling students' and teachers' opportunities to learn and teach" (Cohen and Ball, 1999 p 2). Curriculum provides the frame for what is loose and tight in what and how students interact with content. As Elmore points out in his influential writing about the instructional core, any change in one dimension of the core -- either student, teacher, or content -- affects a change in the other dimensions. Curriculum, alongside teachers and students, shapes the very nature of what happens in classrooms and is inextricably tied to the work of teachers and students (2009, p 25). Our hypothesis in BASD is that a positive change in the quality of our MS ELA curriculum and supports for this curriculum would facilitate a positive change in teacher practice and student outcomes.

For Students

One of the most compelling reasons for this change was the significant role that curriculum has in moving the needle for student achievement. Many leading education researchers have found that curriculum is one of the most important factors that lead to increased student outcomes (Dufour and Marzano, 2012, Boser, Chingos, and Strauss, 2015, Chingos and Whitehurst, 2012, Bryk et al, 2010), and yet others believe that curriculum, though one of the most widely used interventions, rarely proves to be impactful (Cohen and Ball, 1999, Wang, Haertel, and Walberg, 1993). Although Cohen and Ball point to the failure of schools to adequately leverage and support curriculum as a tool for change, they do demonstrate through their research that

curriculum has the potential to dramatically change the instructional core. They specifically point out that curriculum can increase a teacher's capacity to know what student are able to do, and they add that this is an urgent need in our high-poverty schools where teachers tend to believe that student are capable of "modest work" and tend to be new to the profession (1999, p 8). Chingos and Whitehouse go so far as to claim that a quality curriculum is better at increasing students achievement than a slightly above average teacher (2012). In addition, Boser, Chingos and Strauss conducted a randomized experiment and found that curriculum reform achieved the same or better results and had a far better return on investment than class size reduction (2015). And a 3 year study conducted by Newman et al found that improved program coherence had a strong positive relationship to student achievement (2001).

For Teachers

Beyond the impact on student achievement, curriculum also has the potential to improve the quality of professional learning experiences (Miles, Rosenberg, and Green, 2017). Perhaps most importantly for BASD, which has a concentrated number of novice teachers in the middle grades, new teachers or ones just starting out their careers are laying the foundation for their instructional practice. According to Mee and Haverback's case studies of new middle school teachers, challenges with curriculum implementation is one of the core frustrations that teachers raised in their first year (2014). DuFour and Marzano say that a guaranteed and viable curriculum supports teacher efficacy and leadership, and that this curriculum must be analyzed in collaboration with others of the same grade level and/or content area (2011). Through regular and supportive interaction with curriculum materials, novice teachers are able to shape their knowledge and beliefs about what and how students should learn and increase their sense

of efficacy (Valencia, 2006). An increase in a positive sense of self-efficacy is a leading indicator of retention in the field (John, Berg, Donaldson, 2005).

For Districts

Finally, curriculum change supports coherence within and among schools (Wiles, 2009, Ball and Cohen, 1996, Newman, Smith, Allensworth, Bryk, 2001). In a survey of current research and district case studies, Wiener and Pimentel found that many districts separate curriculum from professional learning, and that the failure to integrate these two essential components makes it difficult for teachers to focus on "their essential roles" (2). They argue that when districts make high quality curriculum readily accessible and seamlessly tied to other professional learning, there is a significant increase in application of the curriculum, changes in teacher practice, and outcomes for students (2017). There has been a drift toward districts being more decentralized, enabling schools to make instructional, managerial, and operational decisions (Law, Gaulton, Wai-Tan Wan, 2007). This had led to a emphasis on the school site leader to demonstrate competence in a wide range of leadership abilities (Bryk, 2010). However, student outcomes cannot rest on the back on one heroic leader, a concept that is increasingly proven to be a myth (Fullan, 2010). Newman conducted a study of teachers in Chicago from 1994-1997. Using a rubric, observations, and student achievement measures, they analyzed predictors of student achievement based on a set of 13 indicators. They found that there is evidence that significant improvement in coherence is rooted in the school leaders ability to provide a "framework and make it a priority", collaborating with external partners, and sustaining the work overtime. Newman's empirical study closes by saying that instructional program coherence should "maximize" the existing supports at schools, but that program stability alone is not the goal

(Newman, et al, 2001). This is clearly an important role for district leaders to play in providing this support to school leaders.

While curriculum is generally important for improving schools, increasing student outcomes, and supporting professional community, it is even more critical in places like BASD where students face the daunting task of reaching new rigorous standards and teachers tend to be in their first few years of teaching or veteran teachers that may be unfamiliar with the demands of the new standards. Curriculum then is not just a tool for student learning; it is also a tool for teacher learning (Grossman and Thompson, 2004).

What points of tension exist in the literature about curriculum?

Curriculum decisions are often at the center of new policy or reform initiatives (Wiles, 2009, Valencia, 2004, Cohen and Ball 1999, Glickman et al, 2009), and curriculum is inherently "value-laden", as Wiles put it. Given the combination of power and emotion that comes with conversations and decisions about curriculum, the discourse is full of tension. I will explore some of the more relevant points below in an effort to inform our response to the fundamental problem of practice in BASD, which is how to use curriculum as a tool to improve teacher practice. The most significant debate is around curriculum design: how should curriculum be designed and who should design it.

How should curriculum be designed?

DuFour and Marzano lay out a simple set of criteria that help us frame the debate on curriculum design: If curriculum is going to impact student outcomes and professional learning, it must be

guaranteed and *viable* (2011). A guaranteed curriculum means that there is certainty that students will be taught specific content at specific grade levels, and viable refers to an adequate amount of instructional time for students to learn the content (p 90). The implications here are that curriculum needs to provide cross grade level alignment and that it should be designed to provide adequate time for learning essential content.

With regard to what is essential content, the stances tend to be polarized. Leaders in education take opposing stances and struggle to find common ground. For example, Ted Sizer famously argued that education needs to be about depth over breadth in his allegorical tale, *Horace's Compromise*, which describes a teacher facing ethical and moral dilemmas in a large comprehensive high school (1984). While on the other end of the pole is E. D. Hirsch who argued that a more process-oriented education was leading to significant inequities in student outcomes and that we had a democratic responsibility to ensure students had access to a shared knowledge base (1996). Like most things, the truth is somewhere in the messy middle.

For this purpose Glickman's (2009) articulation of three different methods for organizing curriculum may be of use. In the review of curriculum, he found that it is either disciplinary, the typical approach to content-specific learning, interdisciplinary, an approach that finds common thematic connections between traditional content areas, or transdisciplinary, an approach that is not related to any traditional disciplines but built around a topic of study and connected to very broad learning outcomes (287-288). Unfortunately, there is no research to prove the best way to make use of these different ways of approaching curriculum organization, and there is no

theoretical consensus either. One thing we know for sure is that written curriculum is often more than what teachers want and less than what they need (Ben-Perez, 1990).

Who should design it?

This brings us to another point of tension in the research about curriculum: who should write curriculum, teachers or curriculum experts? Again, the field is full of duality or ambiguity. Even the work of DuFour and Marzano, who tend to be very detailed in their recommendations for school improvement, are unclear if teacher-created curriculum is prefered. At some points they talk about teachers developing curriculum objectives and measures on their own, and at other points they say that teachers need to shift through the vast array of curriculum materials to decide what's best (2011).

The opposition in the literature tends to be between those that promote teacher-created curriculum and those that believe that this not the role of teachers, but better placed in the hands of curriculum developers. One of the arguments for teacher-created materials is that teachers are closest to the instructional core and therefore know students and standards best (Glickman, 2009), but other research on the use of science curriculum in elementary schools, shows that there can be a lack of discipline specific knowledge among teachers and that teachers fill this gap with their experience, which may or may not be aligned to grade level content outcomes (Penuel, 2014). In a qualitative study by Valencia that looked at how new teachers used elementary reading programs, she found that new teachers grew their instructional practice when they designed or developed their own curriculum (2006). On this point, Glickman is on the other side of the argument, claiming that new teachers should not be

in the position to design or develop new curriculum, because such a task requires a high degree of instructional expertise. As one teacher said in a study by the Aspen Institute (2017), "Teachers should not be expected to be the composers of the music as well as the conductors of the orchestra" (15). Glickman offers a gradient wherein teachers earn the right to generate new curriculum with time and experience (289). Cohen and Ball say that this approach to curriculum development reflects a very American attitude, one in which the goal is earned individualism. They write, "This hostility to texts, and the idealized image of the individual professional, have inhibited careful consideration of the constructive role that curriculum might play" (6).

Although we have separated curriculum design from our discussion of implementation, it is important to note that we are primarily focused on the how teachers interact with the curriculum and how they enact it, not if the curriculum is well designed. "Whatever their response, teachers' interactions with these curriculum materials influence their sense of efficacy and identity as well as their vision of instruction" (Valencia, 95). Direct teacher involvement in and with curriculum is what makes the difference between success and failure of these change efforts (Glickman), and this involvement happens through professional learning and collaboration (DuFour and Marzano, 2011).

While we may not have resolved these perennial debates regarding curriculum design, the general points of tension that exist in the field also show up in our local context. We expect to find that there are a wide range of perspectives about who should make curriculum and how it should be designed. Developing some common or shared understanding of the effect that

teacher expertise has on the way they interact with and ultimately enact the curriculum may be an interesting data point in this study, given that one of our key hypothesis is that the curriculum adoption will support and help retain our novice teachers.

What does it take to implement curriculum effectively from the perspective of a central office administrator?

Below is an outline of three key elements I found most common in the literature about implementation of curriculum. While some of the terms used differ, the general features were similar: Districts and schools must provide access to a a guaranteed and viable curriculum, support frequent and expert-led collaboration, and establish a set of specific strategies for monitoring and supporting the effort. For the following, I draw heavily from a recent report by Education Resource Strategies(ERS) (2017) and Winer and Pimentel (2017), because they both looked at similar districts that achieve transformational results by leveraging curriculum for professional learning and growth.

Start with Good Curriculum

This literature review has already stated the significance of curriculum generally. However it's important to add that the quality of professional learning will never exceed the quality of the curriculum that teachers use to engage in this learning (Wiener and Pimentel, 2017). They go on to say that "High-quality curriculum is an essential baseline for equity because it ensures all students engage with quality text and intellectually demanding tasks" (12). This general perspective is reinforced by City et al, who say that within the instructional core a student's task "precedes performance" (2014). No curriculum is perfect and requires that teachers are

thoughtfully engaged in adapting the materials to best meet the needs of students. According to Glatthorn (1994), the goal of curriculum implementation should be that teachers use about 75% of the adopted materials, which leaves sufficient time for teacher teams to develop materials that respond the specific needs of their students (30). The ERS Study adds that these adaptations should improve the curriculum and assessments overtime through a collection of teacher survey, observation data, and collaboration with teacher teams (23). Below we go into more detail about the best methods for this.

Professional Learning with Expert Support

Professional learning is strengthened when common, coherent curriculum forms the foundation for learning about practice and student achievement. DuFour and Marzano (2012) claim that "the only way the curriculum in a school can truly be guaranteed" is if teachers are collaboratively studying the curriculum, determining priorities and outcomes, establishing pacing, and making a commitment to teach it. In reference to DuFours' PLC model, teachers must use the curriculum to help answer two of the PLC questions: What will students learn? And how will we know they have learned it? They go on to say that curriculum enables teacher teams to develop a results orientation, because it "can greatly enhance the design of SMARTE goals" and enables teacher efficacy because it provides "clarity regarding intended outcomes" (94). Glickman et al, though they have a more nuanced view of the role of teachers with regard to curriculum implementation and development, agree on this point: The presence of curriculum does provide a strong foundation for teacher collaboration and professional learning.

More recently, ERS (2017) analyzed four case studies of school districts that had achieved breakthrough results for historically underserved communities, which they attribute to highly effective professional learning in a report called “Igniting the Learning Engine”. The study looked at financial and human resources, and conducted interviews with educators at different levels in the system. The study found that three elements were critical to an effective professional learning system: content-focused collaboration, frequent developmental feedback, and rigorous and coherent curricula. Additional proof of the impact of curriculum on professional learning was found in a quantitative study by Cohen and Hill. In their study of professional learning among math teachers in California, Cohen and Hill (2000) found that when professional learning was integrated with the math curriculum and the aligned assessment, there was a dramatic impact on student learning:

> “All of these studies suggest that when educational improvement is focused on learning and teaching academic content, and when curriculum for improving teaching overlaps with curriculum and assessment for students, teaching practice and student performance are likely to improve.” (330)

Despite years of evidence attesting to value of professional learning tied to curriculum, districts and schools tend to underinvest time for professional learning. At the start of a new curricular program, there is an increased need for a short-term investment in professional learning, and this effort should be sustained in the following years through an investment in professional development. ERS suggests that this investment should be between 9-16% of the district’s

operating budget (6) and the largest gap in spending between "typical" districts and exemplars in the case study were in two significant areas:

1. **Curricula-Specific, Expert Led Collaboration:** The difference in this level of spending was about 4.8% with typical districts spending only .1% of their budget in support of collaboration between teachers and instructional experts.
2. **Curricula Specific PL Days/Workshops:** The difference here was 4.5% between a typical and case study district, with typical districts spending just .6% of the budget on time for teachers and instructional experts to do professional learning on curriculum and assessments.

Teacher created or industry created, curriculum that highlights process or content are moot points if there is no dedication to the development of key skills and knowledge necessary for implementing this change in curriculum (Spillane, 1999). Based on the literature review, there seem to be three key factors: time of learning focused on the curriculum, support of a curriculum expert in professional learning, and an investment in high quality materials to support learning.

Provide a Strategic Plan for Monitoring and Support

It's important that schools and districts set out the specific plans and guidelines for implementation. Theses "specifications", as Cohen and Ball calls them, need to be crafted in relationship to the curriculum materials (1999). The details and design of the materials determine how explicit leaders can and should be. The purpose of providing these guides is to "open up the autonomy" of teachers (p 19). Therefore, school or district plans for use and

support of the curriculum can enable teachers to leverage their own knowledge and experience to drive the instructional and curricular decisions that they make.

According to Jon Wiles, instructional leaders should provide a road map with information about how different parts of the plan fit together. Such a plan is an invaluable to inform and connect different stakeholders. These plans should include the strategic actions and plans for how to measure what actions did and did not occur, not just goals or design principles (Cohen and Ball, 1999). These comprehensive plans and communication tools increase the ownership and stability of the curriculum work. He also says that small "boosters", public recognition of excellent work, can have a dramatic impact on motivation to continue the change process (Wiles, 121-124). This point is reinforced by the Wiener and Pimentel (2017), but they offer more detailed description of the key actions, which is helpful for our intervention. The five supporting actions that system leaders need to take to deepen teacher practice and increase student achievement in relationship to curriculum are summarized below.

Supporting Action	**Key Features**
Attend to Culture	Include teachers as the drivers of the PL system, leaders model a "learner stance", leverage early adopters, and gather regular feedback and make results transparent.
Secure time for teachers to meet and collaborate	Create and support embedded professional learning, require schools to provide sufficient time for professional learning by teachers, and ensure facilitators of professional learning are skillful.
Engage Content Experts	Select content-experts to lead professional learning, provide additional content -training for experts, , and align internal and external experts to district expectations and goals.
Establish Methods to Validate	Create expectations to use students learning data to inform professional learning or inquiry cycles, and engage other assessment

Improved Academic Outcomes	and research leaders in the district to assess student work products
Align Budget, Policies, and Other Systems	Ensure budget available for teacher collaboration, build accountability system, align the human capital system, assess the impact of professional learning

Such supporting actions, they say, in combination with high quality curriculum materials and content-specific professional learning, will lead to powerful changes in practice and student outcomes (2017). We hope to find through the intervention and data analysis of this action research the effect when one or more of these supporting actions are not in place.

Again, clarity about the plan and the supports for curriculum is key. Cohen and Ball say that "[w]ithout the means to set common instructional goals or to coordinate among such elements as instructional methods, curriculum content, information about students' performance, and teachers' opportunities to learn, enactment is likely to be both variable and superficial" (16).

What tends to get in the way of implementing curriculum?

There are numerous education policy, teacher support, and curriculum design reasons that can be attributed to the failure of curriculum to impact student outcomes and teacher practice. Jon Wiles provides a detailed list of the factors that contribute to curriculum failure in schools and districts within the "standard curriculum development cycle": stages of analysis, design, implementation, and evaluation.

Valencia, in her research on elementary teachers use of curriculum materials for reading instruction, notes that there is wide variability in both the content materials and context in which teachers work (2006). This range increases the complexity of implementation, especially for novice teachers.

Another persistent issue that gets in the way of effective implementation of curriculum is the faddish approach to school improvement and innovation. Policy-makers and education leaders are often more concerned with taking action and shaping strategic plans than they are with a sustained and long-term impact (Cohen and Ball, 2009, p 13). As Jon Wiles says, “Most schools and districts do not think in terms of five to ten year increments” (121). DuFour and Marzano attribute this to a “lack [of] collective capacity to promote learning within the existing structures and cultures” (2012, p15).

Conclusion: Implications for the implementation of EL Education in BASD

In his influential work on instructional change, Fullan writes, “Progress has been made, but teaching remains an underdeveloped profession” (p 129). Based the this review of literature, I would argue that the absence of an standards-aligned curriculum has had a significant impact on the underdevelopment for teachers in BASD. Curriculum, like many of the core concepts in education, doesn’t have a commonly held definition in the field. I determined that curriculum must refer to more than just the curriculum materials, which is the most frequent interpretation cited. Curriculum is the materials, as well as what teachers and students do with these materials. Curriculum is both what is intended in the design and what is enacted in the

classroom. Because of the central role it plays in mitigating the relationship between students, teachers, and content, curriculum is inevitably critical in changing all three of these dimensions of the instructional core.

A set of three factors contribute to the current context: lack of aligned curriculum, the presence of a largely novice or 10-year-plus veteran teaching staff, and a majority of students that are below grade level. The issue of addressing educational inequity is complex, but the current research in the field proves that districts and schools can accelerate outcomes for students by leveraging quality curriculum to change teacher practice and better align it with grade level expectations. However, curriculum alone is not a remedy to these complex problems. The research shows that it takes a quality curriculum, expert-led professional learning, and a strategic plan for monitoring and support are essential for leveraging curriculum in order to foster deep and transformational change for teachers and students. Cohen and Ball have repeatedly proven an assertion they made in over 20 years ago, which is that learning the curriculum can and should be used as a tool for building teacher capacity (1996). Through this action research project I hope to prove their point by using the newly adopted ELA curriculum in grades 6-8 to improve our teachers capacity to provide standards-align instruction.

Theory of Action

This theory of action is designed to address the problem of practice which is that teachers are not providing standards-aligned instruction to students. This challenge surfaced through multiple data points, including stagnant student achievement, high teacher attrition rates, and the lack of an adopted, high quality curriculum. This theory of action is driven by evidence in the research that shows teacher practice can be changed with by leveraging high-quality, CCSS-aligned curriculum. The specific intervention strategy was developed by considering a combination of available opportunities to influence teachers and leaders (e.g. professional learning spaces, learning walks, debriefs, analysis of data, allocation of expert coaches) and what the research outlined as best practices for district and site leadership support of curriculum implementation.

Problem of Practice	*What is the instructional challenge that this action research is seeking to address?* The absence of key practices - student elaboration, higher order thinking, and collaboration protocols - suggests that teachers are not providing instruction that is aligned to the CCSS standards.
Literature Review	*What are the key learnings from the literature review?* ● Quality curriculum that is aligned within and across grade level is most important to impacting students and teachers ● Curriculum is not just a tool for student learning; it's also a tool for teacher learning. ● Direct teacher involvement in and with curriculum makes the difference between success and failure of implementation efforts. ● District and school leaders must provide supports and strategic plans for ensuring that curriculum use goes beyond superficial coverage.
Intervention	*What is the approach taken to impact these teacher practices this year?*

	There are two basic features of the intervention: monitoring instruction and professional learning for teachers and school leaders. ● All of the monitoring and professional learning is grounded in both the use of the adopted curriculum and the 3 key instructional practices. ● Experts will provide site support for teachers and school leaders with a minimum of 3 days of support per school. ● Monitoring will be done in 3 rounds and data will be sent back to school regarding the trend in observed practices for individual teachers and for the school as a whole.
Expected Outcome	*What do we hope to see as a result of these efforts?* Teacher practice in the 3 focus practices will improve in places where there was strong use of the curriculum and that this growth will be greater than schools that did not use the curriculum. Student outcomes will improve in SRI and ELA SBAC results at a higher rate at schools where teachers used the curriculum than at schools that did not. There is a through line between schools that used the curriculum, improved teacher practice, and had increases in student achievement. Schools that used the curriculum and had strong support had stronger results in both student outcomes and teacher practice.

Intervention Plan

Given that the curriculum implementation included all 6-8 classrooms in the District, the overall intervention was designed to impact all 21 schools. There are 22 schools in the District that serve 6-8 grades, but one formally requested a curriculum waiver in the summer of 2016, which was granted in light of the school's success with teacher-created materials and its focus on a bio-medical career pathway. The other 21 schools were initially included in the study and in the design of the intervention; however, some schools were eventually excluded from the study do to a lack of involvement in some part of the intervention. Because the intervention focused on

the combination of learning walk participation, curriculum use, and collaboration or coaching with a curriculum expert, I determined to narrow the set of schools that we focused on. The following action research looks at the comparison in student achievement and teacher practice growth in relationship to curriculum use (adequate, moderate, or no use) and 3 different levels of support (no support, light support, and significant support). We will go into further detail about this later in the study. I excluded schools where we had no teacher evaluation data, since this data was a second data point for growth in teacher practice. The focus group for the intervention is 13 schools.

Of these 13 schools, all but two used the new Expeditionary Learning (EL) curriculum as their core curriculum for ELA instruction. In most cases the EL curriculum was combined with other units, and the goal for implementation in 2016-17 was to complete 2 of the 4 units that make up the full year-long, EL Education curriculum. Of these 13 schools, 6 have cored classrooms where teachers are responsible for both History and ELA content standards and 1 school has cored classes where the teacher is responsible for Math and ELA. The teachers in these schools have a range of experience, as do the leaders. According to the data, teachers in grade 6-8 in the selected 13 schools are most likely to be within 1-5 years of experience: 53.8% or 127 teachers are in this range. Looking more closely at the data, about half or 68 of 127 of these teachers have 1-2 years of experience. Of the leaders that participated, their experience ranges from 10 years to 2 years of experience leading schools and the majority are not new to the District with the exception of 1 leader. In addition, 10 of the 13 schools have a coach dedicated to ELA or literacy. In the two schools that do not, one has an ELA teacher leader that facilitated

PCLs and the other has a coach that is focused on language learners. In summary, most schools have at least a quarter of their staff that are within 1-2 years of teaching, all have some level of coaching or teacher leader support, and all have a leader with some level of District and school leadership experience.

It could be said that the intervention began in June of 2016 with the initial EL Education Institute, which trained teachers and leaders on the basics of the curriculum. However to be more precise, the work of this specific intervention began in earnest in September of the same year. I make this distinction, because it was in September that we had articulated the goals for year 1 of EL Education curriculum (See Table 1), had engaged the Network Superintendents with these goals, and had begun to do the baseline learning walks. The second phase of the intervention, which was the support of the curriculum expert, was not launched until January due to the District's budget approval process. The full scope of the intervention included monitoring, professional learning, and expert support.

Table 1: *Strategic Goals for Year 1 Implementation of EL Education.*

Goal #1: All students and teachers will be fluent with the EL Education protocols in order to increase collaboration and student talk, and thus deepen their engagement with SEL, complex texts, and evidence-based reasoning.
Rationale: During our baseline learning walk (Sept/October 2016), we found that there are only 10% of classrooms across all 6-8 grades where talk occurs WITHOUT a protocol. We also found that when there were protocols in place, 75% of these classroom had 50%-100% of the time students were talking about a text-based task.

The work of goal development began with the Network Superintendent, with whom we developed a focus on student talk, use of the EL Education protocols, and core curriculum texts.

We then collected baseline data in 52, 6-8 classrooms, using a tool adapted from School Achievement Partners. (See the Table 2 below for the adapted tool and a link to the original version). We then used the baseline data with school leaders to set goals in alignment with their other school priorities and those identified by the Network Superintendent. At this time, school leaders developed a problem of practice that identified 3 core practices that were in need of improvement: students are not elaborating frequently, not engaged with higher order thinking conversations, and not using protocols to collaborate in text-based tasks. In December, we matched schools with an EL Education curriculum expert and began identifying dates for coaching or collaboration support. 9 of 13 schools received some level of direct support from the EL Education curriculum expert. However, the degree and content of that support varied among the schools. About 6 of the 13 schools received 3 or more days of support, 3 schools received 1-2 days of support, and 4 schools received no direct coaching support. Throughout the research study I will refer to these different tiers of support as Significant Support, Light Support, and No Support schools.

Table 2: *6-8 Curriculum Learning Walk Tool*

6-8 ELA Curriculum Learning Walk Tool
Questions used from the SAP Tool:
http://achievethecore.org/content/upload/IPG_Coaching_ELA_3-12.pdf

1. What is the task that students were engaged in?

2. What is or will be the student product from this task?

3. What part of the lesson is observed? *
- Beginning of the Lesson
- Middle of the Lesson
- Close of the Lesson

4. Students are spending the majority of the lesson reading, writing, or speaking about text(s). (3B.1)*

- 100%-75% of the lesson is focused on text(s).
- 75%-50% of the lesson is focused on text(s).
- 50%-25% of the lesson is focused on text(s).
- 25%-0% of the lesson is focused on text(s).

5. Lesson objective is aligned to the Common Core and explicitly names content targets. (3A)*

- The lesson objective includes both language and content targets and is linked to the observed lesson.
- The lesson objective is missing either the content or language targets, but is clearly connected to the observed lesson.
- The lesson objective is missing from the observed lesson.

6. Students are analyzing particular structure(s), concepts, ideas, and details of the text through questions and tasks. (3B.1)

- Most questions and tasks return students to the text to build understanding.
- Many questions and tasks return students to the text to build understanding.
- Few questions and tasks return students to the text to build understanding.
- Questions and tasks do not refer to the text.

7. Students are required to use evidence from the text to demonstrate understanding and to support their ideas about the text. These ideas are expressed through both written and oral responses. (3C.2)

- Most questions and tasks require students to cite evidence from the text.
- Many questions and tasks require students to cite evidence from the text.
- Few questions and tasks require students to cite evidence from the text.
- Questions and tasks can be answered without evidence from the text.

8. Student talk and tasks emphasize the use of critical thinking, moving them from comprehension to deeper level of complexity. (3B.1)

- Most questions and tasks require student to use critical thinking.
- Many questions and tasks require student to use critical thinking.
- Few questions and tasks require student to use critical thinking.
- Questions and tasks require student did not require students to use critical thinking.

9. Students attend to the words (academic vocabulary), phrases, and sentences within the text. (3B.1)

- Vocabulary questions and tasks consistently focus students on the words, phrases, and sentences that matter most and how they are used in the text.
- Vocabulary questions and tasks mostly focus students on the words that matter most and how they are used in the text.
- Vocabulary questions and tasks rarely focus students on the words that matter most and how they are used in the text.

- No questions and tasks focus students on the words that matter most and how they are used in the text.

10. There are frequent opportunities for students to talk about the task. (3C.3)
    - 75%-100% of time observed allowed for student talk.
    - 75%-50% of time observed allowed for student talk.
    - 50%-25% of time observed allowed for student talk.
    - 0% to 25% of time observed allowed for student talk.

11. Student responses tend to focus on the following: (3C.2)
    - Elaboration
    - Retell
    - Yes or No
    - No student responses observed.

12. Students are using a protocol to collaborate around a text-based task. (3C.3)
    - An observed protocol supports students to use specific roles, steps, and time limits to engage in a text-based task.
    - An observed protocol supports students to engage with some explicit structure related to a text-based task.
    - An observed protocol supports student to engage but is not connected to a text-based task.
    - No protocol observed.

13. There is evidence that the core texts from EL Education are in use.
    - Yes -- There is evidence of core texts in use.
    - No -- There is no evidence of core texts in use.

At the initial stages of working with the Network and school site leaders, it became apparent through questions and discussion that leaders were unclear about the specific goals for implementing the curriculum and what support would look like for this work. In addition, teachers that attended the summer curriculum training, also wondered about the goals for "doing the curriculum" and commented about the complexity of the materials and instructional practices in the curriculum. None of the leaders or teachers were overtly opposed to trying out the curriculum, and all seemed interested in seeing what there was to learn from it. In

September and October, the baseline data showed that the majority of classrooms showed evidence of the teachers using the materials.

The intervention was designed with a few things in mind. Firstly, I considered the history that schools and leaders have had with curriculum in the past and knew that there would be a significant amount of skepticism about the adopted curriculum and the District's investment in it over the long haul. I also knew from interviews with leaders that some teachers and leaders were reluctant to collect data about classroom practice given the way data has been previously used to reprimand schools. Given this context, we made sure that the data collection process was inclusive and helped leaders engage in a conversation about practice that served the school particular focus areas. Learning walks moved from being led by me to being led by the site principal by the end of the year. Although we used the SAP-adapted tool to collect comparison data, the focus of the conversation was coming to consensus about the observed practice, identifying school-wide trends, and identifying implications for specific teachers and for the site's professional learning system. We intentionally didn't push on use of the curriculum, but rather focused on increasing literacy practices overall. We expected that this practice would create a culture where data based conversations about practice would lead to conversations about curriculum materials. In addition, we made it clear where standards of teacher practice -- standards that are used for the formal teacher evaluation process -- were linked to the data that we collected in the learning walk[2].

[2] Note that Table 2 has an associated teaching standard for learning walk prompt.

Secondly, I designed the intervention to be informed by the research done by ERS and the Aspen Institute. I specifically leveraged the supportive actions outlined by Wiener and Pimentel (2017) to guide the district supports that were provided. The supports were the following: attend to culture, secure time for teacher to meet and collaborate, engage content experts, establish methods to validate improved academic outcomes, and align budget, policies and other systems. In Table 3, I outline the specific intervention actions that we planned for in alignment with the supportive actions outlined in the literature review. Some of the key elements to point out are the collection of teacher feedback on both support and their sense of efficacy in with the key practice, the learning stance that principals took in leading learning walks and in their own professional learning sessions, contracting and distributing expert support to school sites, and the support for teachers to calibrate around student work.

Lastly, I considered where we were in the implementation process. Given that this was the first year of working with the curriculum, we focused on goals and strategies that made use of pre-established routines, structures, or policies. In whatever place I could, I didn't create new processes or systems to create a barrier to engagement.

Table 3: Intervention Plan

	Component	Activities	Purpose/Sub-Question to be answered	Data to be Collected	Type of Data (process v. impact)
1	Initial teacher training	● Ensure that majority of teachers are trained on the curriculum ● Focus training on understanding how curriculum is a aligned to CCSS, learning targets lead	❑ What teachers concerns about the curriculum? ❑ How engaged are they with the training and the materials? ❑ Is there a difference between how veteran and novice teacher engage with the curriculum and training?	Observational data PD Evaluations	Process data

		to mastery,and protocols and questions provide deep engagement with text.			
2	Baseline implementation data collection (x3)	● Develop tool for data collection. ● Engage Network Leaders in vetting the tool and the process for data collection ● Schedule visits and communicate with leaders ● Facilitate the visits and debrief process ● Summarize aggregate data and teacher specific feedback	❑ What is the current state of instructional practice? ❑ What questions and concerns do leaders have about the curriculum and the implementation? ❑ What is most important to leaders in terms of literacy practice? ❑ Is there a difference between veteran and novice teacher practice? ❑ Where do we see early evidence of the curriculum in use? Where do we see curriculum not in use, yet?	Learning Walk data based on SAP tool	Process and Impact data
3	Data Analysis (x3)	● Sort data into school and aggregate data sets ● Pull trends in conversation with other District leaders ● Name implications for teacher and leader support. ● Communicate back to site specific teacher feedback and site level trends.	❑ What are the school- and district-wide trends with regard to our 3 focus practices? ❑ How does this data relate to student achievement results? ❑ What reaction do leaders have to the data if any? ❑ How are the trends changing over time?	Debrief notes Principal and Network Supt interviews Scholastic Reading Inventory Data ELA SBAC Data	Process and Impact Data
4	Develop annual goals and leadership actions (Fall)	● Work with curriculum experts to identify annual goals and measures ● Share goals with site leaders and align to their site goals ● Develop strategic plans and measurable goals	❑ What is the relationship between site goals and the 3 focus practices? ❑ How well are we able carry out the strategic plans and goals? ❑ Did we provide suprts and what was the quality of these supports?	Reflection on planning using the ERS 5 Supportive Action Teacher mid-year survey Principal Professional Learning Feedback Survey	Process and Impact
5	Provide professional learning for leaders (x3)	● Develop and co-facilitate professional learning sessions for principals ● Use curriculum materials to develop understanding of the three focal practices.	❑ How do leaders use these 3 focus practices in their leadership work? ❑ How do leaders and teachers engage with learning about these three focal practices?	Principal Professional Learning Feedback Survey Observational data from Learning Walks	Process data

6	Provide professional learning for teachers (x2)	● Develop and lead professional learning sessions for teachers ● Use curriculum materials to develop understanding of the three focal practices.	❑ What stance do teachers take toward the curriculum? How is this different for veteran and novice teachers? ❑ How are teachers thinking about their instructional practice in relationship with the curriculum? ❑ What level of depth are they able to get to in planning using the curriculum?	Teacher Professional Learning Feedback Survey Mid-year Teacher Survey Observations from professional learning sessions	Process and impact data
8	Provide ongoing coaching with curriculum experts	● Secure and manage expert curriculum consultants ● Enroll leaders in accessing the coaching support ● Prioritize curriculum support based on school need.	❑ What is the impact of expert coaching on teacher development and student outcomes? ❑ Did coaching support also increase engagement with the curriculum? ❑ What is the focus of coaching and what do coaches see as the barriers to improving teacher practice?	Coaching Logs Coaching Feedback Survey	Process and impact data
10	Collection of Teacher survey data	● Develop feedback questions ● Distribute and monitor response rates ● Share feedback with teachers and school leaders	❑ How do teacher self-assess based on the goals of curriculum implementation? ❑ How do teacher perceive of student performance with the new curriculum? ❑ What do teachers see as the strengths and challenges of the curriculum?	Mid-year teacher survey	Process data

The previous table outlines the intended intervention. However, the intervention changed in some significant ways as a result of different constraints.

We intended to provide two additional professional development days to teachers, but these were not carried out because we couldn't secure enough teachers to make the investment of time worthwhile. Teacher commitment and enrollment in the PD was dependent upon site leader communication and approval of the central PD offering. In many cases, teachers never knew that there was a PD offering. The second adjustment was that a budget crisis lead to a

disruption in the focus for principal professional. We had intended to continue principal professional learning on the literacy practices, however the District leaders needed to redirect their attention after a significant budget shortfall. Another mid-year adjustment was that the curriculum expert support was delayed. This happened as a result of general budget concerns and as a result of a slow internal process for contract approval through the Board of Education. The intended expert support didn't begin in earnest until January, which is already half way through the school year. Lastly, the final round of learning walks coincided with the testing schedule at many school sites. Because of this, we were only able to get to 32 classrooms, which contrasts with the 50+ classrooms were able to visit in our first round. This limited the data available for comparison.

Research Methods

To answer the research question and assess the efficacy of the intervention, I collected data from multiple sources over the course of the 2016-17 school year and pulled District data from the previous school year to establish context and comparison points. There are five main methods for data collection in this study: context data, teacher practice data, teacher perception data, student impact data, and process data from implementation of the intervention.

First, I examined the teacher retention data and documents related to the curriculum adoption process to get a sense of the challenge that the curriculum adoption process was trying to

address. I combined this with data gathered through interviews, reflections, and products from principal and teacher professional learning sessions.

Secondly, I collected two different types of teacher practice data: learning walks and teacher evaluation ratings. A team of District and school leaders conducted 3 rounds of learning walks and collected data from a total of 134 classroom observations, using the adapted SAP tool, which is referenced earlier. This group was often different from school site to school site. However, each visit was led by a member of the central literacy team and scores were entered after the visiting group had come to consensus about the state of practice for each classroom. In addition to this instructional practice data, I drew from the teacher evaluation data that was collected in fall and spring by evaluators using the District's standards for teacher practice[3]. I then looked to see the connections, correlations, and discrepancies between the data sets and the data between schools receiving different levels of curriculum support and different levels of curriculum implementation.

The third step of data collection was to see how teachers perceived of the curriculum, their level of efficacy with it, and how they perceived of the impact that the curriculum had on student performance. The survey was given in February, and we received 39 responses, which represent about 57% of all of the ELA and Humanities teachers that are using the adopted

[3] It's important to note that the teacher evaluation data was not just for ELA teachers. However, there is no way to currently control just for certain content teachers. We felt that it was important to have a second data point for teacher practice data, but the conclusions drawn from evaluation data need to be tentative given this and other challenges regarding teacher evaluation data more generally.

curriculum. Unfortunately, we were only able to secure permission to use the data from 17 of these respondents.

Although the focus of the study is on changes in teacher practices, the secondary and more important impact we hoped to see was on student achievement. For student achievement data, I looked at the rate of growth for two different data sets: ELA Smarter Balanced Assessment Consortium (SBAC) results and Scholastic Reading Inventory (SRI) results. With SBAC, I looked at the increase in the overall percentage of students that met or exceeded standard and the overall decrease in the percentage of students that did not meet standard. I excluded the nearly met category, because we are mostly focused on students moving into grade level and away from being far behind. I also looked at SRI comparisons. This comparison was for growth from the beginning of year (BOY) reading levels and the end of year (EOY) reading levels. I focused on this data because it gives a picture of the impact of 2016-17 school year on a student's development in reading, according to their lexile level.

Lastly, I drew together different pieces of data to assess the quality of the invention. I used the 5 supportive actions outlined in the literature review as the frame for this assessment, and provided evidence of both what was planned for and what actually occurred over the course of the year long intervention. I determined to use a general rubric to make my reflection on the quality of supports into a quantitative data point. The quantitative measure represents the implementation stage of the support: no evidence of support, incomplete support or low quality support, frequent support or good quality support, or consistent support or high quality.

I used the frequency and quality indicator to reflect on different characteristics of different supports.

Analysis and Findings

Analysis Process

I sought to answer the following question in this action research: Will the use of a high quality curriculum to improve teacher practice in the following areas: support for student elaboration, increase in higher order thinking, and collaborative work using protocols by leveraging? Ultimately, the initial findings suggest that teacher practice and student achievement improved and that curriculum and other expert supports contributed to this impact.

The process for data analysis included a few steps using the data collected using the research methods outlined above. The 4 key data points that were used to draw conclusions were 1) teacher practice data using learning walk and teacher evaluation results, 2) teacher mid-year survey results, 3) student achievement results on SRI and ELA SBAC, and 4) a review of the quality of the intervention using the lens of the 5 key supportive actions from ERS.

I began by sorting schools into categories depending on their use of curriculum. There were 3 groups: those that didn't use the curriculum, those that had moderate use, and those that used 2 full modules[4]. I looked at the changes in teacher practice relative to the use of curriculum.

[4] Two modules was the goal for implementation of the EL Education curriculum in this first year. Some schools did more than 2 modules. The full curriculum is composed of 4 modules.

Based on the trends from this data, I then looked at how the learning walk data corroborated with the evidence or contradicted the evidence from the teacher evaluation results. I then looked at the impact that support may have had on the schools that both used the curriculum. Again these school fell into 3 groups: significant support, light support, and no support school. I also drew from observation, interview, and mid-year teacher survey results to expand on the analysis and develop a hypothesis about roots cause or causal relationships between aspects of the intervention.

I approached the student impact data in a similar way. I looked at data for schools that used 2 modules, 1 module, or no modules. I then looked for patterns in student outcomes in both SRI and SBAC and their use of the curriculum and access to support. I looked primarily at the patterns with regard to student achievement and use of the curriculum and found that most schools that used the curriculum has increased in both SRI and SBAC. The outliers in this case were either schools that were already high achieving schools or schools that also had dramatic declines in teacher practice according to the teacher evaluation standards.

Lastly, I considered the process data, which included a self-assessment, teacher mid-year survey results, principal survey results, and other qualitative data. We did not conduct extensive interviews, but rather have detailed notes from learning walks and professional learning sessions that served to further our understanding of the qualitative trends. The process data showed that the implementation work was not consistent in 4 of the 5 areas.

One final note is that only a small number of teachers that replied to the survey also gave consent to use their responses for this research project. I have used their individual responses below to add detail or a teacher's perspective as needed. It's important to note that I tentatively drew conclusions based on the teacher response at a given school, and I did not draw conclusions for teachers more generally.

Intervention Impact Data:

Our focus for this action research was to address the need to change teacher instructional practice in ELA middle school classrooms. We believe that this change is necessary, because there is a largely novice teacher population that tends to leave the District within 3 years and a large veteran population is is not adequately trained to support CCSS standards-based instruction, which has led to little to no growth in student achievement. Middle school and district leaders identified three main areas of improvement in the instructional core based on initial classroom observations: student tasks that demonstrate elaboration, higher order thinking, and collaborate using structured protocols. Based on these classroom indicators, district leaders identified the teaching practice standards that best correlated. (These standards are used as part of the formal teacher evaluation process in BASD). The following are the 4 teaching standards that correlated to the learning walk tool and the descriptor of those standards:

- 3A.1 - Clearly communicates the content- language objective and criteria for mastery
- 3B.1 - Engages students in meaningful tasks that require student ownership
- 3C.2 - Uses questioning strategies that require the use of evidence and elaboration

- 3C.3 - Develops student collaboration and communication

Based on this connection, I used both the learning walk data and the formal evaluation data to look at changes in teacher practice. I also looked at the connection between schools that received significant, light, or no support schools. The rest of the analysis focuses on the data of these 4 specific practices, not only because it is the focus for our study, but these practices were also the 4 areas that showed the most overall growth in comparison to the other teaching standards.

Schools that Used Curriculum and Had Expert Support Improved in More Teacher Practices

Without quality curriculum, schools may grow as a result of professional learning and expert support

The first question we sought to answer was whether or not curriculum use could be positively related to growth in teacher practice. We only have teacher evaluation data from 2 schools that did not use the curriculum[5]. The limited data make it difficult to draw strong conclusions, so we used the learning walk data and information from observations to add more detail. It's still true that the data represents only 2 of the 13 schools, which makes conclusive trends difficult to identify.

Table 4: Teaching Evaluation Growth for Schools that Did Not Use EL Education Curriculum

[5] 3 other schools did not use the curriculum, but we were not able to access their teacher evaluation data for this study. The inclusion of this data may have impacted the results.

Summative score ranges:
Not meeting: 1 -1.5
Developing: 1.6-2.6
Effective: 2.7-3.4
Exemplary: 3.5-4

Table of Teaching Evaluation Growth for Schools that Did Not Use EL Education Curriculum

School	Support Type	3A.1 Fall	3A.1 Spring	3A.1 % Change	3B.1 Fall	3B.1 Spring	3B.1 % Change	3C.2 Fall	3C.2 Spring	3C.2 % Change	3C.3 Fall	3C.3 Spring	3C.3 % Change
MS 13	Strong Support	2	2.13	6%	2.48	2.43	-2%	2.13	2.06	-3%	1.9	2.09	10%
MS 12	No Support	2.19	2.25	3%	2.2	2.27	3%	2.15	2.2	2%	1.95	2.1	8%
Overall Average Growth				3%			.5%			.5%			9%
Related Learning Walk Data		Decrease from 67% to 38% in learning targets that had both a content and language target (Q5)			Increase in talk time (Q4) from 67%-75%. Decrease (83%-50%) in tasks that return students to the text (Q6) Increase in use of critical thinking from 33%-88% (Q8) Increase in focus on vocabulary from 17%-86% (Q9)			Decrease in tasks that require students to cite evidence from 67%-57% (Q7) Increase in student elaboration from 33%-71% (Q11)			Slight decrease in amount of time students had opportunities to talk from 33% to 29% (Q10) Increase in the use of protocols 50%-63% (Q12)		

Similar to other schools that used the curriculum, the table shows that these school were "developing" in the target teaching standards. Both schools made strong gains in 3C.3 (Develops

student collaboration and communication) according to the teacher evaluation data. When we compare the average growth of schools that used the curriculum to these school that did not, we found that these schools grew at a much slower rate in all other standards with the exception of 3C.3. In 3C.3, these schools outgrew the overall average by 4% points, or almost 2x as much growth. MS 12 made the third greatest gains in this practice in all middle schools in the study.

When we looked at the average learning walk data for these two schools, there was not a clear connection between the learning walk data and the teacher evaluation data. This may be due to the fact that we didn't have learning walk data for MS 13 for Round 1. However, we do have 3 rounds of learning walk data for MS 12.

For MS 12, it's important to keep in mind a couple of contextual factors. This school has has 2 teachers at each grade level, teaching a Humanities block. We found that this school had an additional professional development focus on academic language supports for English Learners and received significant support from a curriculum expert (even though they didn't use the curriculum). Theses supports may have contributed to the significant growth in this area.

According to the learning walk data, MS 12 had both a growth in protocol use and an increase in the time for student talk, and this data is positively related to their 10% growth on teaching standard 3C.3. This suggests that expert support and the professional development focus for the

school may have contributed to the growth in these teacher practices, even when their was no adopted curriculum in use.

With quality curriculum, teachers tend to grow in more instructional practices regardless of support.

We compared schools that didn't use the curriculum to schools that did and found that on average schools that used the curriculum grew in 4% or 5% in all 4 target practices. (See Table 5).

Table 5: Comparison of Average Growth of Teacher Evaluation Data

	3A.1	3B.1	3C.2	3C.3
Schools with <u>No Use</u> of EL Ed Curriculum	3%	.5%	.5%	9%
School that Used EL Ed Curriculum	5%	4%	5%	5%
Difference	+2%	+3.5%	+4.5%	-4%

In addition, there didn't seem to be a difference between growth in teacher practice for schools that used 1 module or 2 modules. All but one school grew in at least 3 of the 4 target practices. (See Appendix A for more details.) The school that didn't grow, MS 3, declined in 3 of the 4 practices. Later, I talk more about this school and the possible reasons for this outlier.

I then looked to see how the teacher evaluation data compared to the learning walk data. Unfortunately, we only have 3 rounds of learning walk data for 6 of the 11 schools that had

moderate or adequate use of the curriculum. Since this group make up the majority of schools we believe we can tentatively draw conclusions. (See Appendix B for more on learning walk data by level of curriculum use.)

Table 6: Comparison of Average Teacher Evaluation Data and Learning Walk Data for Schools that Used Curriculum

	3A.1	3B.1	3C.2	3C.3
Teacher Eval Growth on Average	5%	4%	5%	5%
Related Learning Walk Data	Q5: Decrease in this practice from 22%-5%	Q4: Slight decrease in this practice from 78%-75% Q6: Increase in this practice from 50%-68% Q8: Increase in this practice from 12%-50% Q9: Decrease in this practice from 47%-40%.	Q7: Increase in this practice from 39%-42% Q11: Increase from 76%-100%	Q10: Decrease in this practice from 35%-29% Q12: Decrease from 44% to 20%

There is some connection between positive change in the learning walk data and positive change measured by the teacher evaluation tool. There are many reasons for the lack of correlation between the data points, which we will address in the implications section. What we can say is that in schools where teachers used the curriculum there was evidence that teachers were better in certain practice than teachers that did not use the curriculum. We saw these teachers use practices that supported students to:

1. Use the text to build understanding through analyzing particular details, concepts and ideas.

2. Use the evidence from the text to respond to questions and task.
3. Respond in a way that support elaboration and not just retell or simple responses.

This overall average is interesting and suggests that curriculum may have positively impacted teacher practice, but this average hides some important differences between schools. One significant difference is the amount of expert support each school received.

With expert support and curriculum, most target teacher practices grew at a greater rate

Schools that both used the curriculum and received some expert support increased teacher practice at a greater rate. As we further refined our data set to include not just curriculum use, but also expert support, we noticed that even a light amount of support greatly increased the rate of improvement for teacher practices in at least 3 of the 4 target practices. (See Table 7.)

Table 7: Comparison of Schools that Used the EL Education Curriculum and the Level of Support and the Average Growth on Teacher Evaluation Data

	3A.1	3B.1	3C.2	3C.3
Combined Strong Support and Light Support	3%	**4.5%**	**6.4%**	**5.1%**
Strong Support Only	2.6%	3.4%	6%	6.6%
Light Support Only	3.6%	6%	6.3%	2.6%
No Support	**9%**	3.3%	4%	3%

The data show a few interesting trends. With the exception of 3A.1 (Clearly communicates the content- language objective and criteria for mastery), schools that used curriculum and had some level of expert support increased teacher practices at a greater rate. In looking at the individual schools, it appears as though one school (MS 10) increased teacher practice on this standard by 24%, which masks the shallow gains for the other No Support schools (MS 5 and MS 8), which were 1% and 3%. We looked at teacher responses to the mid-year survey to gain better insight, since we do not have learning walk data from MS 10. One teacher attributed growth to the support she received from a site coach, so it's possible that expert support did in fact contribute to this growth, but there is not enough data to draw this conclusion.

It's also important to note that schools that received different levels of support grew at different rates in some of the practice. For example, there was greater growth in 3B.1 (Engages students in meaningful tasks that require student ownership) for light support schools and greater growth in 3C.3 (Develops student collaboration and communication) for significant support schools. One reason for the difference is that curriculum expert coaching and collaboration sessions tended to focus on the use of protocols and other collaborative routines, which may have contributed to the growth in both 3C.2 and 3C.3. The increase in meaningful tasks for light support schools suggests that these schools may have grown as a result of other site professional learning. The mid-year teacher survey corroborates this hypothesis, since all of the teachers from light support schools identified a site instructional coach as a helpful support with the curriculum.

Table 8: Teacher Evaluation Growth in Target Standards for All Schools that Used Curriculum and Received Support

		3A.1			3B.1			3C.2			3C.3		
		Fall	Spring	% of change	Fall	Spring	% of change	Fall	Spring	% of change	Fall	Spring	% of change
MS 1	Adequate	2.4	2.5	6%	2.2	2.4	6%	2.2	2.3	5%	2.1	2.0	-2%
MS 2	Adequate	2.5	2.3	**-8%**	2.4	2.4	1%	2.1	2.3	6%	2.2	2.3	1%
MS 3	**Adequate**	**2.1**	**2**	**-8%**	**2.4**	**2.2**	**-7%**	**2.1**	**2.1**	**-2%**	**1.6**	**1.8**	13%
MS 4	Adequate	2.3	2.4	6%	2.3	2.5	7%	2.3	2.4	4%	2.2	2.4	6%
MS 6	Adequate	1.7	1.8	6%	2.1	2.1	1%	1.8	1.9	8%	2	1.9	-2%
MS 7	Adequate	2.0	2.2	6%	2.3	2.5	9%	2.1	2.3	**10%**	2.2	2.4	7%
MS 9	Moderate	1.7	2	**17%**	1.6	1.9	**15%**	1.6	1.8	8%	1.6	1.8	**15%**
MS 11	Moderate	2.6	2.6	-1%	2.7	2.8	3%	2.3	2.4	4%	2.4	2.4	3%

The data show that all but 1 school (MS 3) increased in at least 3 of the 4 targeted teaching standards, 4 schools had a decrease in 1 instructional practice, and 1 school declined in 3 of the 4. 5 of the 8 schools made significant gains in target instructional practices, which are indicated by the green color on the table. The only school that made no significant gains in any practice had 2 of the 4 areas already at the “effective” stage.

Looking more closely at 3A.1 shows that there are a few outliers: 1 school (MS 9) more than doubled the rate of growth than the other schools, and 2 schools declined significantly (MS 2

and MS 3). The EL Education coaching log, which was maintained by the content experts, added some more information about what may have contributed to the growth for MS 9, but it is difficult to draw conclusions. The school received 6 coaching days and all grade level participated at some point in this support. The school is also using an arts integration curriculum and has strong inquiry cycles in their PLCs, which were focused on increasing student comprehension of complex text. It's possible the the creation of art integration units with the curriculum contributed to this growth, but more information is needed. For the two schools that declined in this area, MS 2 learning walk data aligns with this decline and could be a result of teachers incorporating learning targets into PPTs and no longer making these targets visible on a board or poster for students throughout the lesson. MS 3 had declines across teaching practices, which suggests a bigger challenge with regard to professional learning and development more generally. We know that this school's principal was new to the school and that the instructional coach changed in the middle of the year.

Also, positive impact on teacher practice may be more limited for teacher that are already marked as effective. MS 11 had 2 of the 4 instructional practices identified as "effective" in the spring observation data, and this school made the lowest gains overall (with the exception of the outlier MS 3). In looking at the learning walk data for MS 3, it shows that this school had mixed results. There was an increase in student elaboration and critical thinking, but a decrease in the use of protocols, use of evidence, and number of opportunities for students to talk. According to the teacher survey data, a novice teacher said that she found that the curriculum was challenging in that is didn't provide enough "Scaffolds or ways to adjust the lesson for lower

students" and this teacher was making these adjustments in the absence of expert support with the curriculum.

Use of Curriculum and Teacher Practice Growth Increases Student Achievement

Our secondary impact that we hoped to see was a positive impact on students as a result of changes in teacher practice. We looked at student SRI and ELA SBAC results as evidence that the new curriculum and the instructional practices associated with the curriculum support students to meet CCS Standards. (See Appendix C for the full data set on student achievement.)

Table 9: Comparison of Student Achievement Based on Level of Use of Curriculum

	% of Students At or Above Grade Level on SRI (BOY-EOY)	**% of Students that Met or Exceed Standard on ELA SBAC**	**% of Students that Did Not Meet Standards on ELA SBAC**
Average for School that had Adequate Use of Curriculum (n=8)	+7.97	+2.51	-1.41
Average for Schools that had Moderate Use of Curriculum (n=3)	+5.8	-0.96	+7.23
Average for Schools that did Not Use Adopted Curriculum (n=2)	+6.7	-0.4	+7.15

The data show that on average students that attended schools where at least 2 modules -- which we are defining as adequate use of curriculum -- outperformed all other schools in both SRI and ELA SBAC performance. The results are particularly dramatic when we look at SBAC results. The average performance among the cohort of schools that had adequate use of the curriculum were the only schools to increase the percentage of students that met grade level standards and decline the percentage of students that did not meet standard. The average results suggest that students are more likely to grow toward grade level standards when the curriculum is used in their instruction, and that this trend is not just true for students that are

close to grade level, but also for students that are below grade level. Also student achievement greatly increases when 2 modules are used, as opposed to just 1 module. This data contrasts with the teacher practice data, which suggested that teachers that used 1-2 modules grew at a similar rate. I can be assumed that use of curriculum has a greater immediate effect on students than on teacher practice.

The average student data masks some of the variance between schools in the different cohorts. When I just looked at the general increase or decline for each school the data doesn't look as positive. The data show that 6 of the 11 schools in the study that used the curriculum made gains in both SRI and SBAC. This is a similar rate to the schools that did not use the curriculum. For this group only 1 of 2 schools grew in both measures. I think looked to see if the level of support made a difference for schools that used the curriculum and again, the data was inconclusive. 3 of the 6 schools that received significant support grew, and 1 of 3 schools that received light support grew in these two student metrics. This rate was not different when I looked more closely at the grade level specific data on results, use, and support. In general, about half of the grade levels and schools were able to improve both SRI and SBAC results.

However, the results look slightly different when I looked at how teacher practice growth related to student achievement. There were only 3 schools that had growth in all of the target teacher practices: MS 4, MS 7, and MS 9. All three of these schools also improved in both SBAC and SRI. All other schools that had declines in teacher practice, also had declines in student performance on SBAC with the exception of 1 school (MS 2). This school had a decline in

teaching standard 3A.1 (Clearly communicates the content- language objective and criteria for mastery) and growth in the other 3 practices. I'm unclear about the implications of this data, but the connection between teacher practice growth and student achievement growth for specific school sites merits further investigation.

Intervention Process Data

The intervention outlined a series of 10 actions in order to improve teacher practice and bring it more in alignment with CCSS instructional practices. The intervention was informed by the literature review and by my understanding of the context. As I pointed out in the invention plan, some of the pieces of the intervention strategy were affected by changes in professional learning plans, the BASD mid-year budget crisis, delayed deployment of expert facilitators, and a delay in the final round of learning walks. However, we were able to carry out the majority of the intended actions. In order to better understand what supportive actions led to the impact outlined above, I reflected on the intervention actions that were actually carried out using the supportive actions outlined by Wiener and Pimentel (2017). I used a 4-point scale rubric rating in order to synthesize this qualitative information in something more quantitative.

Supporting Action 1: Attend to Culture **Overall Rating: 2 - Low Quality and/or Infrequent**		
Indicators:	**Intervention reflection:**	**Rubric rating:**
Include teachers as the drivers of the PL system	Teacher we involved in the adoption process, but not in designing the professional learning or goals for this year.	1 - No Evidence
Leaders model a "learner stance"	Leaders sought to learn about the curriculum and the practices. They modeled this learner stance with other site leaders and with staff in some cases. Principal researcher regularly	3 - Good quality or frequent

	shared reflections and feedback with teachers and leaders.	
Leverage early adopters	Videos and samples of student work from early adopters were used in principal PD and in communication to teacher leaders.	2 - Low quality of infrequent
Gather regular feedback and make results transparent	Principal research shared teacher feedback data and learning walk data with leaders. It's unclear how much of the data was made transparent to teachers at sites, because school leaders were tasked with sharing learning walk feedback and results.	2 - Low quality and/or infrequent

Supporting Action 2: Secure time for teachers to meet and collaborate Overall Rating: 2.33 - Low quality and/or infrequent		
Indicator:	**Intervention reflection:**	**Rubric rating:**
Create and support embedded professional learning	In schools that received 3+ days of coaching might be rated higher. However, the District and schools site in general did not ensure that there was embedded professional learning around the curriculum.	2 - Low quality and/or infrequent
Require schools to provide sufficient time for professional learning by teachers	Most school have weekly collaboration among teachers, and teachers in the mid-year survey cited collaboration as one of the most valuable supports.	3 - Good quality and/or frequent
Ensure facilitators of professional learning are skillful	There is no formal training for teachers to facilitate collaboration. There is a very wide range of ability and experience in those that do lead weekly collaboration. This is difficult to assess given the range and lack of formal training.	2 - Low quality and/or infrequent

Supporting Action 3: Engage Content Experts Overall Rating: 2.33 - Low quality and/or infrequent		
Indicator:	**Intervention reflection:**	**Rubric rating:**

Select content-experts to lead professional learning	This is only true at sites that had a designated coach from Expeditionary Learning. As as mentioned above, collaboration leads are a mixed group in terms of skill and ability, and only a couple of teacher have prior experience with the adopted curriculum.	2 - Low quality and/or infrequent
Provide additional content-training for experts	The content experts in BASD would be either ELA teacher leaders or site coaches. While we did have a few site coaches meet with the content expert, these instances were very few. In addition, our professional learning for site coaches did not include a focus on the curriculum this year.	1 - No evidence
Align internal and external experts to district expectations and goals	Goals were developed with external experts, Network Superintendents, principals, and teacher leaders. This was a strong practice this year.	4 - Consistent and/or high quality

Supporting Action 4: Establish Methods to Validate Improved Academic Outcomes Overall Rating: 1 -- No evidence		
Indicator:	**Intervention reflection:**	**Rubric rating:**
Create expectations to use students learning data to inform professional learning or inquiry cycles	We had the intention of looking at student work at the end of the year, but do to budget constraints teachers were not given a stipend to attend and very few people were interested in doing this without the stipend. There may have been additional expectations to look at student work at the site, but there is no evidence to prove this.	1 - No evidence
Engage other assessment and research leaders in the district to assess student work products	Again, there was no collection of student work product to engage with, so there was no evidence of this action. District leaders only looked at SRI and SBAC data.	1 - No evidence

Supporting Action 5: Align Budget, Policies, and Other Systems

Overall Rating: 2.25 - Low quality and/or infrequent		
	Intervention reflection:	**Rubric rating:**
Ensure budget available for teacher collaboration	There was a budget available to support teacher leader collaboration 6 times in the year, and there was a budget to support site coaches professional learning weekly. There is dedicated time weekly for site professional learning and support and this was protected.	3 - Good quality and/or frequent
Build accountability system	Accountability for use of the curriculum was low. We had goals, but principals tended to not enforce the minimum in most schools. This is evidenced by the wide variety of level of implementation at each site and at each grade level. The primary mode of accountability was through the learning walks where we tracked use of curriculum and the 3 key practices.	2 - Low quality and/or infrequent
Align the human capital system	We used the teacher evaluation systems to assess the change in teacher practice for the 3 key practices. Beyond the use of this tool to aid in monitoring impact, there was no other use of the human capital systems to support this effort.	2 - Low quality and/or infrequent
Assess the impact of professional learning	We assessed the impact of the professional learning in indirect ways through the learning walks, teacher surveys, and coaching logs. The content experts also collected data, but the response rate was very low. We also collected data from principal professional learning, but again the frequency of this learning was low, so it's hard to draw conclusions.	2 - Low quality and/or infrequent

Within each of the supporting actions, the intervention process had some areas of strength. These tended to be around some of the foundational elements, such as providing time for professional learning, aligning goals, having a learning orientation among leaders, and ensuring a budget for teacher collaboration. The data suggest that there is a readiness for greater

commitment to other supportive actions, which were not fully implemented in this intervention.

A few areas surfaced where the intervention plan fell significantly short of the supports outlined. One of the most significant areas was “Action 4: Establish Methods to Validate Improved Academic Outcomes”. The original intervention planned to provide a professional learning session where teacher reflected on student work and calibrated ratings, but the lack of funds available to pay teachers to engage for professional learning prevented us from carrying out this part of the work. It’s possible that school sites and the EL Education curriculum coaches did look at student work in their coaching and collaboration sessions, but it’s important to note that there were not clear expectations or general engagement with other District leaders in assessing student work products. The absence of this support may have impacted our ability to judge the degree to which curriculum and instruction was leading to the desired, standards-based outcomes that we were hoping for.

Another and related trend that shows up in this process data is that many of the indicators in each support were rated at a 2 - Low quality and/or infrequent. There are many different reasons that the supportive actions were not implemented with more frequency or with greater quality. What stands out in the process data is that there is a willingness and a desire for supportive actions, as was evidenced in teacher feedback and principal feedback. However, the lack of engagement directly with teachers and leaders, the lack of investment in additional content-expert training, the low stakes approach to accountability, and absence of greater

cross-departmental collaboration with other District leaders significantly hindered the efficacy of these actions.

Again, there are implications for how BASD and schools can build on the areas where there is good quality and frequent support and address the need to look at student work may lead to better supports and great impact for teachers and students.

Implications and Conclusions

Overall, this intervention and the subsequent research found some promising results on the efficacy of quality curriculum and expert support to improve teacher practice related to a few CCSS-aligned instructional practices. While it is difficult to create a causal chain between any one element in the complex array of factors impacting teaching and learning, quality curriculum has proven to positively impact change for BASD teachers and students. Although I feel strongly that the work of this study has made the argument that curriculum can be used as a tool for increasing the ability of teachers to provide standards-align content and instruction, there is more work to be done to fully understand the implications and to deepen the discussion. The following implications are grouped into three main themes: curriculum and expert support are tools for teacher learning, district supports are needed to create consistency, and more research is needed on monitoring teacher practice and development.

Firstly, our strongest conclusion is that teacher practice can be brought more into alignment by using quality curriculum as a tool for improvement. But that curriculum alone is not enough. We

also found that expert support, at even the smallest increment, was an important enabler of these positive instructional changes. “[W]hat teachers, students, or materials bring to instruction depends partly on how well it can be discerned and used by teachers. In this view, endowments can be understood not as an absolute feature of a teacher, student, or bit of material, but as a function of how well other interactors can make use of the endowment” (27). What Cohen and Ball are saying here is that our work is to make use of the latent or explicit capacity to learn in teachers, students, as well as materials. I would argue that content or curriculum experts are the best suited for this role. The research showed that teacher practice and student achievement can be improved with the combination of these two elements: quality curriculum and content expertise.

What remains to be explored in a better understanding of how teachers are engaged in planning with the curriculum materials provided and what other content experts might be teachers be accessing beyond the EL Education curriculum experts. I’m interested in learning more about what components are teachers focused on and reflecting on, what adaptations might they be making, and what information do they use to make these adaptations. I am also curious about what additional content experts might exist in schools where we saw positive changes in teacher practice with only a minor level of expert support. This information would give a better sense to the smaller instructional decisions that teachers are making and how the curriculum materials and expert support may be enabling continued learning about instructional practice in the face of curriculum.

Relatedly, there are numerous implications for how this intervention data can be used to better leverage BASD and district supports more generally. The work of using curriculum to transform student achievement and teacher practice will require significant and sustained effort by both school and District leaders. Cohen and Ball assert that "[f]rom an analytic perspective, then, the instructional environment is not simply a 'context,' a backdrop against which action occurs. It is also part of the content, because the content and process of instruction depends on its environments and because intervenors' and enactors' management of instructional environments will be crucial for their success" (17). Although we saw growth for students and teachers, the variation among practice and outcomes is stark. Some schools grew 24% in a single teacher practice, while others 8%. Also, the fact that 5 of 15 schools did not meet the minimal expectations for implementation of 2 curricular units, suggests that the context of the of District work is fractured, and in many respects it seems as though the ability of leaders to both access the content expert support and meet the curriculum implementation goals rested on the readiness of the site leaders to provide focus on guidance. The process data showed that there is time dedicated to professional learning, but that a fiscal resources and accountability supports were not in place to make the most of this time. If it's true the the use of quality curriculum and expert support increases teacher practices, then schools and districts need to make a sustained investment in the development of content experts and provide guidance to leaders on the best use of these material and human resources. .

This action research also showed that teacher evaluation data in combination with other teacher practice data can be used to investigate the impact of changes to the instructional core.

However, there is more work to be done to understand the relationship between these two data points. The research strongly drew from teacher evaluation data as the summative measure of change, and this assumption should be tested further, especially since teacher practice standards do not have content specific indicators, and may lack the kind of specificity that we need for looking closely standards that align to specific ELA, CCSS-aligned instructional practices.

One area for inquiry would be to test the hypothesis that districts should use teacher standards as a measure of professional learning in the system. The impact of this on BASD might be that the District can see the impact of curriculum and expert supports over time. While this might be a good and needed adjustment, there is a need for further discussion and exploration about the accuracy of teacher evaluation ratings. According to a recent article in *EdWeek*, Liana Loewus found that principal ratings for teachers on high stake evaluations tended to be more inflated than when principals rate teachers on the same standards in low-stakes environments. One reason the article claims is that principals tend to want to maintain the relationship between teachers and therefore will slightly inflate ratings when the rating may lead to a "difficult conversation" regarding the teacher efficacy.

As Karen Hawley Miles, the CEO of Education Resource Strategies said at the ERS Summit in Boston, "District systems are set-up to make incremental change, not changing large existing structures. This is related to the lack of sustained, multi-year efforts. The vision tends to change and/or the leader changes. This ends up with small changes that don't change anything

significant. However, the new standards and the new materials create a good opportunity for changing something significant." BASD has taken the opportunity to engage in significantly changing in teacher practices, and there is more work to be done. The field has an opportunity to better understand the relationship between curriculum and teacher development of Common Core-aligned instructional practice. We are conducting this work at a unique time when curriculum is open source and there is literal generational divide between new teacher that received teacher training with the CCSS and those that need to recalibrate to these new expectations. If the field can strengthen the connection between quality materials and changes in teacher practices, then we could seize the transition to these standards as a truly transformational opportunity for students achievement and teacher capacity.

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Appendix

Appendix A: Summary of School Data

School Name	Curriculum Use	3A.1			3B.1			3C.2			3C.3			Expert Support Level	Learning Walk Data
		Fall	Spring	% of change	Fall	Spring	% of change	Fall	Spring	% of change	Fall	Spring	% of change		
MS 1	Adequate	2.44	2.58	6%	2.29	2.42	6%	2.21	2.33	5%	2.12	2.08	-2%	Light Support	3 Rounds
MS 2	Adequate	2.5	2.3	-8%	2.42	2.44	1%	2.18	2.3	6%	2.27	2.3	1%	Significant Supp	3 Rounds
MS 3	Adequate	2.17	2	-8%	2.43	2.27	-7%	2.14	2.1	-2%	1.67	1.88	13%	Significant Supp	2 Rounds
MS 4	Adequate	2.33	2.47	6%	2.37	2.53	7%	2.35	2.45	4%	2.28	2.41	6%	Significant Supp	3 Rounds
MS 5	Adequate	2.48	2.51	1%	2.62	2.62	0%	2.35	2.52	7%	2.45	2.43	-1%	No Support	3 Rounds
MS 6	Adequate	1.72	1.83	6%	2.17	2.19	1%	1.82	1.97	8%	2	1.97	-2%	Significant Supp	3 Rounds
MS 7	Adequate	2.07	2.2	6%	2.31	2.52	9%	2.14	2.35	10%	2.27	2.43	7%	Light Support	2 Rounds
MS 8	Adequate	2.77	2.84	3%	2.86	2.93	2%	2.82	2.93	4%	2.64	2.78	5%	No Support	2 Rounds
MS 9	Moderate	1.71	2	17%	1.69	1.94	15%	1.67	1.8	8%	1.64	1.88	15%	Significant Supp	2 Rounds
MS 10	Moderate	1.77	2.19	24%	2.21	2.38	8%	2.29	2.32	1%	2	2.11	5%	No Support	2 Rounds
MS 11	Moderate	2.66	2.63	-1%	2.78	2.86	3%	2.36	2.46	4%	2.4	2.48	3%	Light Support	3 Rounds
MS 12	No Use	2	2.13	6%	2.48	2.43	-2%	2.13	2.06	-3%	1.9	2.09	10%	Significant Supp	3 Rounds
MS 13	No Use	2.19	2.25	3%	2.2	2.27	3%	2.15	2.2	2%	1.95	2.1	8%	No Support	3 Rounds

Appendix B: Learning Walk Data by Level of Curriculum Use

OVERALL for Curriculum USE Schools									
Grade Level s Observed									
Q4: Students are spending the majority of the lesson reading, writing, or speaking about text(s). (3B.1)									
	Round 1			Round 2			Round 3		
100%-75% of the lesson is focused on text(s).	11	61%	78%	14	67%	76%	13	65%	75%
75%-50% of the lesson is focused on text(s).	3	17%		2	10%		2	10%	
50%-25% of the lesson is focused on text(s).	0	0%		3	14%		2	10%	
25%-0% of the lesson is focused on text(s).	4	22%		2	10%		3	15%	

Q5: Lesson objective is aligned to the Common Core and explicitly names content targets. (3A.1)									
	Round 1			Round 2			Round 3		
The lesson objective includes both language and content targets and is linked to the observed lesson.	4	22%		0	0%		1	5%	
The lesson objective is missing either the content or language targets, but is clearly connected to the observed lesson.	6	33%		18	86%		13	65%	
The lesson objective is missing from the observed lesson.	8	44%		3	14%		6	30%	

Q6: Students are analyzing particular structure(s), concepts, ideas, and details of the text through questions and tasks (3B.1)									
	Round 1			Round 2			Round 3		
Most questions and tasks return students to the text to build understanding.	6	33%	50%	6	29%	67%	8	42%	68%
Many questions and tasks return students to the text to build understanding.	3	17%		8	38%		5	26%	
Few questions and tasks return students to the text to build understanding.	5	28%		4	19%		3	16%	
Questions and tasks do not refer to the text.	4	22%		3	14%		3	16%	

Q7: Students are required to use evidence from the text to demonstrate understanding and to support their ideas about the text. These ideas are expressed through both written and oral responses. (3C. 2)									
	Round 1			Round 2			Round 3		
Most questions and tasks require students to cite evidence from the text.	5	28%	39%	5	24%	52%	5	26%	42%
Many questions and tasks require students to cite evidence from the text.	2	11%		6	29%		3	16%	
Few questions and tasks require students to cite evidence from the text.	3	17%		4	19%		5	26%	
Questions and tasks can be answered without evidence from the text.	8	44%		6	29%		6	32%	

Q8: Student talk and tasks emphasize the use of critical thinking, moving them from comprehension to deeper level of complexity (3B.1)									
	Round 1			Round 2			Round 3		
Most questions and tasks require student to use critical thinking.	1	6%	12%	3	14%	38%	4	20%	50%
Many questions and tasks require student to use critical thinking.	1	6%		5	24%		6	30%	
Few questions and tasks require student to use critical thinking.	7	41%		4	19%		8	40%	
Questions and tasks require student did not require students to use critical thinking.	8	47%		9	43%		2	10%	

Q9: Students attend to the words (academic vocabulary), phrases, and sentences within the text (3B.1)									
	Round 1			Round 2			Round 3		
Vocabulary questions and tasks consistently focus students on the words, phrases, and sentences that matter most and how they are used in the text.	2	12%	47%	4	19%	29%	6	30%	40%
Vocabulary questions and tasks mostly focus students on the words that matter most and how they are used in the text.	6	35%		2	10%		2	10%	
Vocabulary questions and tasks rarely focus students on the words that matter most and how they are used in the text.	1	6%		4	19%		5	25%	
No questions and tasks focus students on the words that matter most and how they are used in the text.	8	47%		11	52%		7	35%	

Q 10: There are frequent opportunities for students to talk about the task. (3C.3)									
	Round 1			Round 2			Round 3		
75%-100% of time observed allowed for student talk.	4	24%	35%	3	14%	29%	4	3	29%
75%-50% of time observed allowed for student talk.	2	12%		3	14%		5	3	
50%-25% of time observed allowed for student talk.	0	0%		5	24%		9	6	
0% to 25% of time observed allowed for student talk.	11	65%		10	48%		13	8	

Q11: Student responses tend to focus on the following: (3C.2)									
	Round 1			Round 2					
Elaboration	5	29%	76%	8	38%	81%	10	53%	100%
Retell	8	47%		9	43%		10	53%	
Yes or No	0	0%		1	5%		0	0%	
No student responses observed.	4	24%		3	14%		0	0%	

Q12: Students are using a protocol to collaborate around a text-based task (3C.3)									
	Round 1			Round 2			Round 3		
An observed protocol supports students to use specific roles, steps, and time limits to engage in a text-based task.	4	22%	44%	1	5%	38%	1	5%	20%
An observed protocol supports students to engage with some explicit structure related to a text-based task.	4	22%		7	33%		3	16%	

An observed protocol supports student to engage but is not connected to a text-based task.	0	0%		1	5%		1	5%	
No protocol observed.	10	56%		12	57%		15	79%	

Appendix C: Table of Student Achievement for Schools in the Study

Student Achievement Data for School that Used 2 Modules

School Dashboard:		SRI 2016-17				ELA SBAC					Curriculum
		2016-17 BOY At or Above	2016-17 EOY At or Above	Change	15-16 Meeting or Exceeding	2016-17 Meeting or Exceeding	Change in Met /Exceeded 15-16	15-16 Not Met	2016-17 Not Met	Change in Not Met 15-16	Use of EL Ed 2016-17
MS 4		29.8	34.4	4.6	25.5	25.5	2.5	50	52.3	2.3	
	6	25.2	33.6	8.4	24.6	24.6	-0.4	56.9	52	-4.9	Yes
	7	31.6	34.2	2.6	25.6	25.6	-1	53.8	58.6	4.8	Yes
	8	32.8	35.1	2.3	26.5	26.5	3.2	56	46.2	-9.8	Yes
MS 7		54.2	63.8	9.6	44.9	53.3	8.4	35.6	28.6	-7	
	6	57.1	69.8	12.7	48.9	53	4.1	31.3	21.6	-9.7	yes
	7	55.1	65	10.8	43.9	61.2	17.3	37.4	28.1	-9.3	Moderate
	8	54.2	56.4	2.2	41.9	45.4	3.5	38.2	36.4	-1.8	yes
MS 5		49.5	63.7	14.2	55.4	55.4	4.4	23	20.2	-2.8	
	6	44.6	61.5	16.9	52.3	52.3	1.2	22.5	23.3	0.8	yes
	7	48.5	62.4	13.9	56.4	56.4	2	18.4	19.5	1.1	yes
	8	55.1	67.2	12.1	57.6	57.6	4.1	21.2	17.8	-3.4	yes
MS 1		16.3	25.8	9.5	18.4	18.4	-0.6	49	51.3	2.3	
	6	8	16.7	8.7	11.8	11.8	0	53.1	61.3	8.2	yes

	7	19.7	24.8	5.1	17	17	-5.6	45.2	52.8	7.6	yes
	8	20.9	30	9.1	26.5	26.5	2.3	50.8	38.9	-11.9	yes
MS 8		48.1	53.3	5.2	40	43.2	3.2	35.1	32.8	-2.3	
	6	40.6	51.6	11	43.8	41.1	-2.7	27.9	31.1	3.2	yes
	7	57	59.7	2.7	39.7	45.3	5.6	39.7	33.7	-6	yes
	8	46.6	48.3	1.7	36.7	43.1	6.4	37.4	33.5	-3.9	no
MS 6		12.3	18.9	6.6	12.7	12.7	-2.3	58	62.9	4.9	
	6	12.5	16.8	4.3	7	7	-2.1	64.6	73.7	9.1	yes
	7	10.9	17.7	6.8	10.4	10.4	-17.4	55.2	65.6	10.4	yes
	8	19.3	22.8	3.5	22.4	22.4	4.6	60.7	46.1	-14.6	yes
MS 2		18.4	28.9	10.5	15.7	15.7	6.7	68	54.7	-13.3	
	6	10.9	19.2	8.3	10.9	10.9	6.1	69.4	67.4	-2	yes
	7	17.5	27.2	9.7	15.3	15.3	2.8	65.6	53.8	-11.8	yes
	8	24.3	37.3	13	19.1	19.1	-8.6	72.3	47.1	-25.2	yes
MS 3		22.7	26.3	3.6	18	15.8	-2.2	58.6	63.2	4.6	
	6	16.9	17.6	0.7	15.4	7.1	-8.3	65.9	75	9.1	yes
	7	20.3	29.1	8.8	17.5	20.7	3.2	61.5	61.9	0.4	no
	8	28.6	28.9	0.3	20.4	16.8	-3.6	50.6	57.3	6.7	yes
	Overall Average				7.97			2.51		-1.41	

Student Achievement Data for School that Used 1 Module

School Dashboard:	SRI 2016-17				ELA SBAC					Curriculum
	2016-17 BOY At or Above	2016-17 EOY At or Above	Change	15-16 Meeting or Exceeding	2016-17 Meeting or Exceeding	Change in Met /Exceeded 15-16	15-16 Not Met	2016-17 Not Met	Change in Not Met 15-16	Use of EL Ed 2016-17

MS 9		12.5	16.2	3.7	11.4	13.6	2.2	61.7	64.2	2.5	
	6	7.8	13.2	5.4	7.6	15.9	8.3	68.6	64.8	-3.8	Moderate
	7	14.2	15.2	1	13.4	9.6	-3.8	54.8	70.2	15.4	Moderate
	8	15	19.8	4.8	13.6	14	0.4	60.8	57	-3.8	No
MS 10		15	21	6	12.2	8.1	-4.1	62.4	73.3	10.9	
	6	5.7	16.9	11.2	14.1	4.2	-9.9	70.2	83.3	13.1	yes
	7	16.7	21.3	4.6	3.5	11.5	8	49.3	67.9	18.6	moderate
	8	23.7	24.6	0.9	17.9	9.9	-8	23.2	69	45.8	moderate
MS 11		25.5	33.2	7.7	24	24	-1	43	51.3	8.3	
	6	24.9	32.3	7.4	20.9	20.9	-2.9	51	51.9	0.9	moderate
	7	23.3	34.4	11.1	21.7	21.7	-6.1	45.2	59	13.8	moderate
	8	28.1	32.9	4.8	29.6	29.6	1.1	39.6	42.8	3.2	moderate
Overall Average				5.8			-0.96			7.23	

Student Achievement Data for School that DID Not Use the EL Education Modules

School Dashboard:		SRI 2016-17				ELA SBAC					Curriculum
		2016-17 BOY At or Above	2016-17 EOY At or Above	Change	15-16 Meeting or Exceeding	2016-17 Meeting or Exceeding	Change in Met /Exceeded 15-16	15-16 Not Met	2016-17 Not Met	Change in Not Met 15-16	Use of EL Ed 2016-17
MS 12		15.4	19.8	4.4	11	12.7	1.7	57	63.3	6.3	
	6	11.8	14.3	2.5	7.2	9.8	2.6	60.4	65.2	4.8	no
	7	12.7	17	4.3	5.3	8.2	2.9	68.4	64.2	-4.2	no
	8	21.1	29.8	8.7	19.4	19.6	0.2	50.4	60.7	10.3	no

MS 13		20.8	29.8	9	27	24.5	-2.5	39	47	8	
	6	8.4	21.2	12.8	25	21	-4	41.4	46.5	5.1	no
	7	23.9	34.7	10.8	21.8	30.6	8.8	50	44.6	-5.4	no
	8	29.9	33	3.1	40.5	21.7	-18.8	32.8	50	17.2	no
Overall Average				6.7			-0.4			7.15	