

Instructional Frameworks that Enhance the Instructional Core: An Exploration of Authentic
Intellectual Work as a Driver of Powerful Learning Experiences for All Students

by

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ABSTRACT

The instructional core is defined by Richard Elmore as the interaction of students and teachers around content. Changes to the instructional core are often attempted in vain as school leaders adopt curriculum, programs, or interventions that produce only superficial results. Even more, these efforts are largely incorporated without coherence in mind. In this study of Newmann and Associates' framework called Authentic Intellectual Work (AIW), I will explore the manner in which powerful learning experiences are developed for students around a coherent instructional framework. These powerful learning experiences are developed through a commitment to empowering students to explore their curiosities in order to create knowledge based on the experiences they bring with them to the classroom. As importantly, this study is built on the assumption that engaging students in knowledge creation that is transferable to real world situations is critically important to shifting the instructional core away from information consumption to knowledge creation. By establishing AIW as an effective framework to make meaningful change in the instructional core, this study will seek to explore the conditions that support successful implementation of this framework designed to achieve positive and equitable outcomes for students. This study utilizes Participatory Action Research (PAR) with a comparative case study. My role as a district office administrator in a school district of approximately 6,500 students provides me the unique opportunity to situate myself in the research as a part of the proposed PAR study. By leveraging the findings of the bounded case study in a school or school district of a similar size that has successfully implemented AIW, I can both engage in the inductive process of researching a single case study while immediately applying my learning to a comparison school in a PAR study.

CHAPTER 1: Introduction to the Research

The formal education of children is conducted in classrooms. However, it is too often the case that classrooms lack meaningful instructional activities that fully engage students.

Typically, classroom activities rely on packaged curricular programs aimed at addressing narrow measures of achievement (Cohen & Ball, 1999; Cuban, 1984; Elmore, 2000; Fischer, Frey, & Nelson, 2012; Gross & DeArmond, 2018; Honig, 2016). These prescriptive curricular approaches are often steeped in bias and fail to reflect the perspectives, culture, and experiences of all learners (Banks & Banks, 1995; Bryk et al., 2010; Elmore, 1995; Lee, Smith, & Croninger, 1987; McBay, 1999). The result is often the failure to inspire students to generate new ideas or thinking. In the end, these classrooms produce outcomes (standardized test results, graduation rates, disciplinary actions, identification for special education, enrollment in post-secondary education) that are inequitable. Policymakers, researchers, and school leaders typically offer new approaches to teaching and learning that lack clarity and seldom impact the work done by teachers, with students, in classrooms, around important skills and content (Bryk et al., 2010; Cohen & Ball, 1999; Cuban, 1984; Elmore, 2000; Fullan, 2011; Fullan & Miles, 1992; Goodlad, 1983).

Schools have been the subject of reform for many years. However, reform work often fails to substantially address the core of instruction in ways that create powerful learning experiences for students. These powerful learning experiences originate in the instructional core. Richard Elmore (1996) used the term “instructional core” to refer to the interaction of teachers and students around content. More specifically, Elmore refers to the way in which “teachers understand the nature of knowledge and the student’s role in learning, and how these ideas about learning and knowledge are manifested in teaching and classwork” (p. 2). Teachers’ decisions

around instruction, assessment, feedback on assessment results to students and parents, classroom arrangements and the grouping of students within it, and the relationships teachers have with students around learning all impact the learning experiences for students.

Developing a high-quality instructional core requires the creation of powerful learning experiences for the students who learn in classrooms. Drawing primarily on Dewey (1938), Fullan and Quinn (2016), as well as other scholars, I define a powerful learning experience as one that includes:

- high-level cognitive work for students,
- student-driven inquiry,
- transferability of learning to new and unfamiliar situations, and
- student constructed knowledge based on lived or learned experiences of their own or their peers.

Powerful learning experiences position the student at the center of the interactions in classrooms as the teacher engages him or her in situations that extend curiosity for learning beyond the walls of the classroom.

Yet, much of the reform work in schools is done on structures and organization around classrooms and not the instructional core itself (Cuban, 1984; Elmore, 2000). Often the efforts to reform schools focus on compensating for lagging scores on standardized tests. As schools seek to bolster diminished achievement on standardized tests, they choose to adopt programs that narrow the curriculum, focus on skills that address scores on tests to the detriment of deep learning, and discourage collaboration (Honig, 2016). The reform efforts center on improving curricular materials, training teachers in new methods, or implementing new technology resulting in efforts that fail to consider the capacity-building that is necessary for teachers to

make initiatives work at the classroom level (Cohen & Ball, 1999). The reforms themselves are aimed at increasing accountability for schools and teachers or bolstering test scores, and often lack the development opportunities to engage teachers in honing practices that address improvements in powerful student learning (Honig, 2016; Little, 1993). Even more, transitioning reforms from policy to practice results in the lack of a deliberate approach to nurture change that can truly take root in classrooms where powerful learning occurs. This is due in large part to the fact that those tasked with reform in classrooms fail to buy in to the implementation of policy (Green & McShane, 2018). Further, as teachers still work in relative isolation, most reforms stand little chance of enhancing the learning across classrooms in a school (Cuban, 1984; Elmore, 2000). Because reforms typically do not transform the interactions between teachers, students, and content within classrooms, these efforts are disconnected from addressing learning and equity in the classroom and are largely superficial (Cohen & Ball, 1999; Fisher, Frey, & Nelson, 2010; Gross & DeArmond, 2018).

Initiatives that produce only superficial changes lead to teacher practices and student experiences that are disparate and inconsistent from one classroom to the next. To address this problem, schools must incorporate an instructional framework with the sole purpose of creating powerful learning experiences within and across classrooms. Incorporating an instructional framework allows teachers to operate under a common pedagogical language that translates into collective understanding of learning goals and a coherent experience for students. A dedicated instructional framework supports conditions under which teachers can talk about and improve their work to create a high-quality instructional core rife with powerful learning experiences for students. The existence of an instructional framework allows teachers and school leaders to

focus, individually and collectively, on the elements of good teaching (Bowe & Gore, 2007; City et al., 2009; Cohen & Ball, 2001; Ladwig, 2007).

Further, a dedicated instructional framework provides appropriate guidance for teachers as they analyze the effectiveness of their practices related to common school improvement efforts allowing for them to see their contribution to collective improvement of teaching in their specific context (Bowe & Gore, 2007; Jabr et al., 2020; Johnson & Goetsch, 2000). It is critical that the work to develop environments that include powerful learning experiences avoid the adoption of a framework in name only contributing to a “hyperactive policy dance” (Hess, 1999). This dance involves school leaders adopting measures that superficially address improvements in teaching and learning. By engaging in this dance, school leaders maintain the confidence of their governing bodies as well as their constituents while continuing to heap new initiative after new initiative on their teachers that lack any meaningful shift in the instructional core creating powerful student learning experiences.

The work to engage students in powerful learning experiences begins by defining an instructional framework that can be implemented in a way that is coherent across classrooms in a school. The adoption of a clear instructional framework dedicated to the development of a high-quality instructional core establishes support for teachers by providing clear direction in instructional decision-making, a clear focus for professional development, a set of guidelines that allows them to meaningfully assess outcomes over time all while creating a common experience for students around powerful classroom learning experiences. In their work *Coherence: The Right Drivers in Action for Schools, Districts, and Systems*, Fullan and Quinn (2016) argue that to achieve change in schools, they should “develop explicit frameworks or models to guide the learning process” (p. 88). To be effective, these explicit frameworks should embrace a “small

number of goals directly linked to improved student learning” (p. 106). Research suggests that a dedicated instructional framework is important as schools make meaningful, instructional change to existing structures. Developing powerful learning experiences in order to improve student learning starts with the core elements of instruction. Unfortunately, “the idea that schools should coordinate instruction internally—to ensure that students’ opportunities to learn are coherent within and across grade levels—seems unusual in schools’ practice” (Cohen & Ball, 1999, p. 10).

To maximize the impact of an instructional framework that creates powerful learning experiences, it is important for school leaders to adopt one that can be implemented with coherence throughout the system. For my purposes, the system refers to the school-level and not an entire district or state. After all, the school remains the “locus of change” and the place where potential improvement is not isolated to only teachers or principals or administering or curricula or materials. The school is the place where improvement in all of these areas can occur. As Goodlad (1983) states, “the school is a...more promising place to begin a process of educational change than is the office of the superintendent” (p. 37). A commitment to schoolwide instructional coherence promotes both student success and staff capacity. It helps teachers to work effectively on problems of school improvement that can directly increase student engagement and learning (Newmann et al., 2001). An Instructional framework implemented coherently throughout a system creates a degree of predictability for students from one classroom to the next while leveraging the framework to build capacity in teachers. School improvement efforts are more likely to impact outcomes when a framework is implemented with coherence aimed at the instructional core.

While there exists a wide range of instructional frameworks that meet the characteristics of establishing practices that are tethered to them, a framework that establishes the need for powerful learning experiences for students is more likely to produce positive and more equitable outcomes for students (Ladwig, 2007; Newmann & Associates, 1996). The twenty-first century student has access to more information than ever before, yet classrooms that incorporate powerful learning experiences for all students are rare. Research indicates that classrooms embracing the elements of powerful learning are those typically reserved for students who have flourished in a traditional classroom and often exclude students from marginalized groups (King, Schroeder, & Chawczewski, 2010; Newmann, Bryk, & Nagoaka, 2001; Williams & Wilson, 2010). The experiences of students of color, students of varying abilities, and students experiencing poverty along with other traditionally marginalized groups are not often represented or honored in classrooms, contributing to inequitable outcomes (Gay, 2010; Klug & Whitfield, 2003; Ladson-Billings, 1994). Students are unable to leverage their own experiences to extend their learning thereby constructing their own knowledge. Further, the collaborative approach to learning in which students engage the experiences of peers suffers, leading to learning that lacks depth and ultimately diminished learning outcomes (Dewey, 1938; Simon, 1996; Hooks, 2010; Newmann, Carmichael, & King, 2016).

Authentic Intellectual Work (AIW), an instructional framework first developed by Newmann and Associates (1996), is one such framework that embraces the development of powerful learning experiences for students. AIW, when implemented with coherence, effectively addresses the instructional core, while engaging students in powerful learning contributing to positive and equitable learning outcomes for students. This framework establishes criteria for students to construct their own knowledge, through disciplined inquiry applied to real world

situations, and to communicate their understanding to audiences beyond their teachers. These criteria are all critical elements of a powerful learning experience. Further, this framework provides the guidelines and common language for teachers as they continually assess their practices along with their peers to remain committed to the tenets of powerful learning experiences. The collaborative guidelines that are an integral part of AIW professional development foster coherence as teachers engage in learning about their own instructional decisions across grades and subject areas that create powerful learning experiences. Pedagogy that meets the criteria of the AIW framework contributes to positive and equitable learning outcomes (Newmann & Associates, 1996; Newman, Marks, & Gamoran, 1996). The AIW framework is ideally constructed to address the instructional core, while being implemented with coherence in order to produce equitable outcomes. The articulation of powerful learning predicated on the experiences of both the teacher and the learner leading to greater outcomes for all students will be detailed in greater depth in Chapter 2.

Yet to be fully studied are the conditions and practices that exist in school settings that allow for an instructional framework like AIW to impact teacher practice and improve student learning outcomes. Bryk, Sebring, Allensworth, Luppescu, and Easton (2010) identified a variety of factors that impact, to varying degrees, student outcomes in schools. Generally speaking, these include: school leadership, parent-community ties, professional capacity of staff members, student-centered learning environment, and instructional guidance. While the work of Bryk et al. (2010) points to critical characteristics that support school improvement, they also acknowledge that “meaningful improvement typically entails orchestrated initiatives across multiple domains” (p. 197). At the center of improvement in schools is the instructional guidance system beginning with an instructional framework that fosters the development of a high-quality instructional core

promoting powerful learning experiences for students. Beyond the framework, there should also exist a common pedagogy that is shared across all faculty delivering instruction in schools.

The work of Bryk et al. (2010) provides a foundation for research to analyze the conditions in schools that support successful implementation of an instructional framework. Their longitudinal study of the Chicago Public Schools revealed that school leadership acts as a driver for improvements in four related organizational subsystems which are: parent and community ties, professional capacity of the faculty and staff, a student-centered learning climate, and an instructional guidance system (Bryk et al., 2010). While AIW certainly qualifies as an instructional framework that incorporates common pedagogical approaches, the conditions around successful implementation warrant further study. In short, what are the conditions and practices that exist in schools that allow the aforementioned components to take hold and create powerful learning for students in classrooms? This study seeks to explore the conditions and practices that exist in schools that promote successful implementation of the AIW framework that leads to positive and equitable student outcomes.

Too often, leaders operating at the school level seek a quick fix to address lackluster achievement or inequitable outcomes. They adopt curricular programs that lack a commitment to professional development for teachers leading to superficial or minimal change in the instructional core. Because AIW is not a curricular program, but a framework to guide instructional decisions in the instructional core combined with a sustained focus for professional development, the possibility to impact outcomes is enhanced. What then are the conditions and practices that exist in schools that promote understanding, implementation, and commitment to the success of the AIW framework?

Bryk et al. (2010) further concluded that successful schools also included a complementary set of mechanisms, most notably, quality professional development. The centerpiece of AIW and the professional development that accompanies it, is the degree to which educators act as collaborators around instructional decisions fostering high quality, real time professional development. With professional development at its core, it will be important to understand the conditions and practices that allow for it to flourish in successful AIW schools. This study will seek to explore these conditions in schools that support this approach. The study will address the following main research question:

- In schools that have adopted an instructional framework to improve the instructional core and promote powerful learning experiences for students, what are the conditions and practices that contribute to successful implementation of that framework?

In addition, these two research questions will be addressed:

- How and to what extent does the implementation of the instructional framework transform teachers' classroom practices (curriculum, instruction, assessment) through the lens of those tasked with delivering instruction in classrooms?
- In what ways and to what extent does implementation of the instructional framework contribute to coherence across grades and subject areas?

Overview of the Study

The purpose of this study is to determine the conditions and practices that exist in schools that support the coherent implementation of an instructional framework designed to create powerful learning experiences for students that lead to positive and equitable learning outcomes. The work of Newmann and Associates (1996) called Authentic Intellectual Work will serve as the basis for this study of the way in which coherent instructional frameworks can produce

positive and equitable learning outcomes. This chapter has framed the problem, introduced the framework to be used as a part of this study, and stated the research questions. Chapter 2 examines the literature that deals with instructional frameworks generally and Authentic Intellectual Work specifically, schoolwide coherence, powerful learning experiences, and equitable outcomes. Chapter 3 details the design of the research and associated methodologies used to answer the study's research questions. In Chapters 5 and 6, will develop themes and categories from two samples that were studied. Finally, in Chapter 6, I will provide the findings and conclusions from the study with particular attention to a comparative analysis of the two cases.

As a practitioner in PK-12 education, I have observed and have been a part of the adoption of packaged curricular programs that failed to inspire new ideas or thinking on the part of students. My role as a district-level administrator has led me to conclusions that these programs lacked clarity with minimal impact on the quality of the core of instruction. I often observed classrooms that continued to operate independently while outcomes remained stagnant at best. Typically without adequate capacity building and professional development for teachers, the implementation of these initiatives lacked buy-in or accountability. As a researcher, it is my intent to better inform my own work as a practitioner as well as the work of countless others who seek to create positive and equitable student outcomes where it matters most, the instructional core. The work that I am engaged in daily around curriculum, instruction, and assessment leads me to question the most effective approach to make meaningful change in the instructional core. District-level adoption of new and innovative approaches to classroom instruction often gets lost in classrooms during periods of adoption and beyond. It is my desire to identify the causes of these interruptions. In doing so, I and those with whom I work each day are better able to provide

high-quality instructional practices in the instructional core leading to positive and equitable achievement outcomes for students.

Additionally, the conditions that exist in schools that support a high-quality instructional core with powerful learning experiences for students seem nebulous and undefined in my experience. In general, this kind of focus for school improvement gets a significant amount of lip-service but little progress (Cuban, 1993; Newmann, Carmichael, & King, 2016). Some have suggested that a strong culture of learning can help to support a high-quality instructional core while others insist that effective leadership is the defining factor. Still others have surmised that strong community and parent support can be the difference in creating a high-quality instructional core while others suggest that clear process and procedures around instructional tasks can be the difference between minimal and strong gains in achievement. Opinions around the conditions that support a high-quality instructional core appear endless. It is my desire to delve deeply into these reasons in order to continue my work to shape progress that leads to positive gains in achievement and equitable outcomes for all students.

CHAPTER 2: Introduction to the Literature Review

With the instructional core serving as the foundation, this chapter will explore the following literature strands: powerful learning experiences, coherence, and equitable outcomes. Specifically, the literature review will investigate (a) the degree to which adoption of an instructional framework enhances the instructional core through powerful learning experiences for students, (b) the need to build coherence through instructional frameworks, and (c) the degree which the aforementioned create equitable outcomes for students. After detailing this research, one instructional framework, Authentic Intellectual Work (AIW), will serve as an exemplar within which these research strands are situated.

The first section of the literature review will explore the foundations of the instructional core. Based largely on the work of Richard Elmore, this section will define the instructional core, establishing the foundations of this concept and the way in which Progressive era reformers attempted to create widescale shifts in the instructional approach of schools to enhance the instructional core. Finally, this section will highlight the failure of many reform efforts to influence the instructional core. Research suggests that schools that have a dedicated instructional framework that serves to guide the work of teachers in classrooms mitigates the superficiality of the work purported to improve schools and outcomes. The research supporting this line of inquiry is presented in conjunction with the research in support of work to create a high-quality instructional core by creating powerful learning experiences for students.

The concept of coherence is dealt with in the second section of this review. Specifically, this section details the research devoted to the idea of implementing consistent practices that shift the instructional core at the school level. The research details the necessity of aligning curricular, instructional, and assessment practices in order to both address the instructional core while

providing a level of permission for leaders and teachers to de-emphasize those actions that fall outside of it. Attention is given to the outcomes resulting from coherence as well as the way in which professional development for teachers can support development of a coherent instructional core.

Building upon the research into high-quality instructional frameworks that include powerful learning experiences for students, the third line of inquiry connects these learning experiences to equitable outcomes for students. The research highlighted in this section suggests that by engaging students in powerful learning experiences, more equitable outcomes are created. These powerful learning experiences create an environment in which all student voices are privileged in a way that opens doors to elevating the perspectives of all learners and thereby fostering positive, equitable outcomes.

This review culminates with the exploration of the work of Newmann and Associates (1996; Newmann, Carmichael, & King, 2016) called Authentic Intellectual Work (AIW). The investigation of this instructional framework reveals that it effectively addresses the instructional core and provides an opportunity for coherence by providing students powerful learning experiences thus leading to equitable outcomes. The research presented details the foundational components of this framework while connecting to the research that precedes it in this paper.

The Literature Review Process Explained

The process of developing this literature review began by identifying the foundational research from those who made significant contributions to the scholarship in each of the aforementioned strands of literature beginning with the work of Richard Elmore, John Dewey, and David Cohen and Deborah Loewenberg Ball. Once I established the foundational pieces of research, I employed a process of backward author searching to identify precursors to the

foundational works by the researchers. In order to fully develop each line of inquiry, I employed chain searching to locate a wider breadth of research to extend the foundational components of the literature review often utilizing the citations embedded within the foundational work. When it became apparent that the research embedded within the foundational pieces was beginning to be repeated, I was able to determine that the line of inquiry for my identified purposes was exhausted.

To ensure adequate coverage of the historical development of the lines of inquiry, I used historical literature dating back to the early twentieth century. I supplemented that literature with more contemporary pieces. The use of the more contemporary literature provided deeper context for the enduring ideas of the historical and foundational pieces.

The Instructional Core

When schools adopt a dedicated and coherent instructional framework, they seek to address the quality of the core of instruction. The instructional core refers to the interaction of teachers and students with content (Elmore, 1996). A high-quality instructional core requires the development of powerful learning experiences for students in classrooms. Recall, these powerful learning experiences are predicated on:

- high-level cognitive work for students,
- student-driven inquiry,
- transferability of learning to new and unfamiliar situations, and
- student constructed knowledge based on lived or learned experiences of their own or their peers.

These powerful learning experiences position the student at the center of the interaction in classrooms as the teacher engages him or her in situations that extend their curiosity for learning

beyond the walls of the classroom. To improve the core, schools must change the way that teachers and students interact with each other and alter the nature of curriculum content (Figure 1). Elmore (2006) noted that one aspect of the core cannot be changed without changing the others.

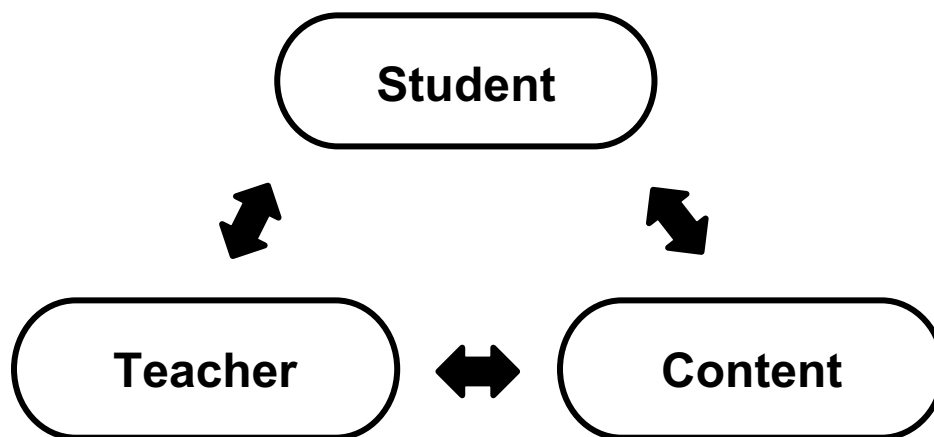


Figure 1: The Instructional Core. From *Instructional Rounds in Education: A Network Approach to Improving Teaching and Learning* by City, Elmore, Fiarman, and Teitel 2009

As teaching in classrooms is often an individual enterprise, the work to change practices in the instructional core requires work to change individual approaches to teaching and learning. Developing a high-quality instructional core with powerful learning experiences often means shedding traditional, less dynamic approaches to instruction and engaging in practices that engage students in new ways centered on their own experience and that of their peers. These approaches might involve “creative adaptations and responses to the backgrounds, interests, and preferences of students and their families. And they might be wedded to interesting ways to solutions to the multitude of problems children face outside of school” (Elmore, p. 6, 1996). In all, demanding tasks that require higher cognitive complexity that engage students as powerful

agents of their own learning provides the greatest opportunity for meaningful change in the instructional core.

Progressive reformers dating back to the late 1890s made explicit attempts to alter the instructional core from a “teacher-centered, fact-centered, recitation-based pedagogy to a pedagogical approach that was intended to situate student learning in a real-life context” (Elmore, 1996, p. 7). These reforms were a first attempt to alter the core of instruction on a large scale which sought to shift the center of gravity in education back to the child (Cremin, 1961). Through the early 1900s, Progressive Era reformers in places like Gary, IN, Winnetka, IL, and cities as large as Denver, CO and Washington, DC worked to address the instructional core by attempting to shift entire school systems to incorporate an instructional model that leveraged the experience of students in real-life settings to drive learning in classrooms (Elmore, 1996). The work of progressive school reformers met resistance from those who sought to embrace a more traditional model of pedagogy suggesting that progressive reforms created a watered-down version of school for students and sought to focus on children’s psychological adjustment at the expense of their learning (Cremin, 1961; Elmore, 1996).

Though large scale curricular and pedagogical reforms in the likeness of the Progressive Era reforms of the early twentieth century continued through the 1960s, the struggle to initiate sweeping reform designed to impact the instructional core has failed to take hold in school systems even today. Larry Cuban (1984) studied the impact of the progressive reforms and ultimately determined that a “weak, diluted, hybrid form emerged in some settings in which new curricula were shoe-horned into old practices and, in most secondary classrooms, the curricula had no impact on teaching and learning at all” (as cited in Elmore, 1996, p. 13). The work to significantly impact teaching and learning in the instructional core continues in today’s schools.

In recent years, those interested in school reform suggested that, until a period in the 1990s, too little attention was directly focused on developing a high-quality instructional core. School reformers argued for intense scrutiny on what happens in the instructional core where teachers engage with students on the subject matter as most “instructional interventions are commonly introduced into schools without taking adequate account of what it would take to make them work in classrooms” (Cohen & Ball, 1999, p. 1). Further research suggests that reform efforts embracing an instructional framework in which the capacities of students and teachers are enhanced by focusing needed attention on the core of instruction can be worthwhile in driving positive student outcomes (Fischer, Frey, & Nelson, 2012; Gross & DeArmond, 2018). These outcomes are only realized when efforts are devoted to addressing the shift in all three elements in the instructional core; the student, the teacher, and the content. More specifically, Cohen and Ball (1999) suggest that most reform efforts simply focus on “improving curricular materials, training teachers in new methods, or adding new technologies” (p. 2) and that too little time is devoted to enhancing teacher capacity. This approach is critical as “teachers mediate all relationships within instruction” (p. 4) including the relationships between students and teachers, students and students, students and instructional materials, and students and technologies. If a school’s improvement strategy involves the implementation of a new instructional framework, it is critical that the skill of teachers be addressed at the same time as the role of the student in learning is addressed (City et al., 2009). The confluence of these crucial elements is imperative to make meaningful change in the instructional core.

Consistent with this shift, Bryk et al. (2010) emphasized the importance of “the academic content that students are exposed to, the intellectual demand with which students are expected to engage this content (as exemplified in the types of work products students are asked to produce),

and the classroom pedagogies and instructional tools necessary to bring all of this about” (p. 47). In short, it is important, when engaging in school reform around instruction, that the classroom pedagogy remains the primary focus of the reform and “the rest of the school as an organization largely [fade] into the background” (p. 47). Reformers are well served to focus their influence on the conditions under which teachers work and engage with students around subject matter in classrooms (Bryk et al., 2010). After all, it is to be expected that “intervention designs which are more comprehensive and more focused on instruction are more likely to be more effective in changing instruction” (Cohen & Ball, 1999, p. 17).

The research is clear that in order to significantly change instructional practices and affect outcomes, the development of a high-quality instructional core is of primary importance. However, it is rarely the case that school reform targets this critical area. In fact, as reform moves closer to the instructional core, the impact of policymakers lessens and change is more reliant on the knowledge and the skill of the practitioners (Cohen & Ball, 1999; Elmore, 2000). The work to change the instructional core in order to affect outcomes lies largely with teachers who are often left out of reform efforts as a result of policymaker’s superficial approach to improvement. Teachers are left to experience change as fads reducing the impact of meaningful and positive shifts at the core of instruction (Fullan & Miles, 1992).

Regardless of the way in which institutions design their approach to addressing the instructional core, it is certain that tasks that engage teachers in creating powerful learning experiences for their students must be the focus for creating a high-quality instructional core. An approach of this nature should allow teachers to learn through examining what students think about ideas shared in the classroom, how certain representations of content work, and how students interact with the curriculum as well as the difficulties they encounter and how they

mediate those difficulties (Cohen & Ball, 1999). By examining “well-developed notions of what it means for teachers to teach and students to learn at high levels of competency in a given area” (Elmore, 1996, p. 19), teachers can focus their work on creating powerful learning experiences that situate the student at the center of the learning and extend their curiosity beyond the classroom. To address the instructional core, a systematic approach to engaging teachers in evaluating and shifting their approach to creating powerful learning experiences is needed. It is the “teachers’ knowledge, expertise, and skills that affect the interaction of students and materials in ways that neither students or materials can” (Cohen & Ball, 1999, p. 4).

Having examined the shift in the instructional core, the next section will assess the degree to which powerful learning experiences support the shifting of it. To do this, I will examine the critical elements to making those shifts a reality for students in classrooms.

Imperative of Powerful Learning Experiences

To best understand the approach necessary to create a high-quality instructional core, a full examination of the elements of a powerful learning experience is necessary. These elements include:

- high-level cognitive work for students,
- student-driven inquiry,
- transferability of learning to new and unfamiliar situations, and
- student constructed knowledge based on lived or learned experiences of their own or their peers.

High Level Cognitive Work. In a 2010 interview titled “Leading the Instructional Core; an Interview with Richard Elmore,” he indicates that there is difficulty in connecting classroom tasks with performance outcomes because “there is not enough high-level work going on in

classrooms to get really robust cause and effect relationships because the tasks we are asking students to do are so mediocre” (Ontario Ministry of Education, 2010). In order to create a powerful learning experience for all students, it is critical that students engage in tasks that require high levels of cognitive work. Unfortunately, most tasks in classrooms require memorization or simple procedural thinking even though students need to spend a significant amount of time in classrooms on tasks that require higher level thinking and reasoning (Tekkumru-Kisa, Stein, & Schunn, 2015). Classrooms that embrace high-level cognitive work are typically more active and promote better problem solving, more effective cognitive skill transfer and higher use of elaboration, critical thinking, and metacognitive strategies (Stolk & Harari, 2014). Most importantly, students who have the opportunity to work in these classrooms report that these environments are more cognitively meaningful than a more traditional classroom (Stolk & Harari, 2014). While no single task can ensure high-level cognitive work, attention to tasks that engage students in advanced levels of thinking are but one necessary component to a powerful learning experience. To ensure that high levels of cognitive work are achieved, teachers should be mindful of the cognitive demands they are placing on students and the approaches they might take to ensure these levels of cognition are encouraged (Newmann et al, 2016; Tekkumru-Kisa, et al., 2015).

Student-driven Inquiry. Engaging students in high-level cognitive work is but one component of a powerful learning experience. Students must also engage in the *process* of learning predicated on student-driven inquiry. In order to unleash the power of learning in classrooms, it is critical to emphasize the freedom of the learner to develop their ability to think. Information must be tied to thoughtful action designed to solve problems on the part of the learner (Dewey, 1916; Dewey, 1938). In sum, when

children are engaged in doing things and in discussing what arises in the course of their doing, it is found, even with comparatively indifferent modes of instruction, that children's inquiries are spontaneous and numerous, and the proposals of solution advanced, varied, and ingenious (Dewey, 1916, p. 136).

In a powerful learning experience, it is imperative that students drive their own inquiry as they develop their ability to think. Placing the student at the center of the learning can ensure that students are driving the inquiry that is occurring in classrooms. When the accountability for learning is placed on the student and the teacher acts as facilitator of that learning, students tend to perform better (Richmond & Hagan, 2011). In doing so, powerful learning experiences are created for students.

Transferability of Learning. Empowering students to drive their own inquiry can prove helpful in creating powerful learning experiences that ask students what they can *do* with information and experiences on their way to establishing their own learning. To do this, classrooms must require students to be “thoughtful about, and productive with, content” (Wiggins & McTighe, 2008, p. 36). A key element to powerful learning is the fluent and flexible transfer of learning requiring students to successfully use knowledge and skill on worthy tasks in important and realistic situations (Wiggins & McTighe, 2006). It is pivotal that schools embrace this approach in order to realize positive outcomes for all students.

Bransford, Brown, and Cocking (2010) provide further evidence “that organizing information into a conceptual framework allows for greater ‘transfer’; that is, it allows students to apply what was learned in new situations and learn related information more quickly” (p. 17). Providing students with opportunities to apply their experiences and knowledge to new and unfamiliar contexts serves to deepen the learning. This research suggests that a commitment to a

high-quality instructional core increases the likelihood of this transfer occurring, a further justification for devoting efforts to develop a high-quality instructional core while placing a premium on incorporating powerful learning experiences.

Even more, in today's classrooms these connections are critical as technology is infused in nearly every learning opportunity. This technology-rich approach provides students access to more information than ever. What students can do with the information is more critical than merely possessing it. Fullan and Quinn (2016) advocate an approach to developing classroom tasks that involve using information to solve real-life problems by developing students' abilities to understand concepts, think critically, solve problems, and apply learning in authentic ways. This approach to learning "requires students to take greater charge of their own and each other's learning inside and outside the classroom" (Fullan & Quinn, 2016, p. 93).

In addition to creating opportunities for students to transfer learning, there exists a body of research that emphasizes the power and importance of helping students take control of their own learning directly tied to the science of learning. In their work *How People Learn: Brain, Mind, Experience, and School*, based on the work of noted psychologists Piaget and Vygotsky, Bransford et al. (2010) emphasize that humans are goal-directed agents who actively seek information. They come to formal education with a range of prior knowledge, skills, beliefs, and concepts that significantly influence what they notice about the environment and how they organize and interpret it. This, in turn, affects their ability to remember, reason, solve problems, and acquire new knowledge. In the end, "knowledgeable individuals are more likely to use what they have learned to solve novel problems—to show evidence of transfer" (p. 9-10).

It is also important to consider the metacognitive processes that foster the transfer of knowledge to new and unfamiliar situations as a means to establish powerful learning

experiences for students (Bransford et al., 2010). The incorporation of metacognition that includes sense-making, self-assessment and reflection have proven to increase the degree to which students generate deeper understanding and transfer learning to new settings and events (p. 12). Consistent with the work of Dewey (1938), Fullan and Quinn (2016), and Bransford et al. (2010) point to

a good deal of evidence that learning is enhanced when teachers pay attention to knowledge and beliefs that learners bring to a learning task, use this knowledge as a starting point to new instruction, and monitor students' changing perceptions as instruction proceeds (p. 11).

The perception of the learner is changed when knowledge is applied to new and unfamiliar situations. This approach further justifies the development of powerful learning experiences for students into the educational process as schools develop a high-quality instructional core.

Student Constructed Knowledge. While transferability of learning is important, leveraging the experiences of students as they develop and transfer knowledge is equally important in a classroom that embraces powerful learning experiences. To engage students in these powerful learning experiences it is important for teachers to

emphasize the fact, first, that young people in traditional schools do have experiences; and secondly, that the trouble is not the absence of experiences, but their defective and wrong character -- wrong and defective from the standpoint of connection with students' own experience (Dewey, 1938, p. 27).

It is necessary for educators to encourage students to construct knowledge based on lived or learned experiences of their own or their peers. Leveraging the student experience and the knowledge created before them, "we can shape how children connect with the world and with

each other and create deep learners who are curious and committed” (Fullan & Quinn, 2016, p. 79).

The idea of applying learning to real world scenarios for the purposes of creating knowledge through deeper learning dates back to the Progressive Era reformers of the late 1800s and it remains an important target for reform efforts in today’s schools. John Dewey in his work *Education and Experience* (1938) expressed the imperative for this type of powerful learning when he asked:

How many students, for example, were rendered callous to ideas, and how many lost the impetus to learn because of the way in which learning was experienced by them? How many acquired special skills by means of automatic drill so that their power of judgment and capacity to act intelligently in new situations was limited? How many came to associate the learning process with ennui and boredom? (p. 27)

The characteristics of a powerful learning experience are more important now than ever as “the meaning of ‘knowing’ has shifted from being able to remember and repeat information to being able to find and use it” (Simon, 1996, p. 131). Mindful of this shift, it is important that school leaders and teachers honor the lived experiences of students providing them a forum to draw on that experience in order to develop the freedom to think about problems they encounter in their world. It should be noted that the powerful learning applied to real world contexts does not condemn traditional instructional practices. Rather, this approach emphasizes that students in schools have experiences and that the trouble is not the absence of experiences, but the inability of schools to connect the students’ experience with the experience and traditions of those before them (Dewey, 1938).

Though it is the responsibility of the educator to support students on their journey and to engage students in new and unique thought, Dewey argues that it is the same educator who must be mindful of the experiences that have come before them. Dewey (1938) refers to this as “continuity of experience” and suggests that it is important to be mindful that “every experience both takes up something from those which have gone before and modifies in some way the quality of those which comes after” (p. 35). These experiences can only serve to create a more rich, collaborative, and powerful learning experience for all learners. The incorporation of culturally relevant practices into classrooms, for example, allows instructors to honor the contributions of each student in order to engage them in higher levels of transferable learning (Gay, 2010; Klug & Whitfield, 2003; Ladson-Billings, 1994). A culturally relevant approach to teaching means teaching in a way that “makes sense” to students who have not been assimilated into the dominant culture through the use of the cultural knowledge, prior experiences, frames of reference, and performance styles to make learning more meaningful to them. A culturally relevant teacher validates diverse students’ cultures and leverages the students’ existing strengths to drive instruction. In classrooms that incorporate culturally relevant practices and curriculum, students are able to engage in tasks that capitalize on their cultural backgrounds rather than attempting to override or negate them. Students will encounter tasks that include transferable learning and are child centered and connected to their real lives. These are vital components to creating powerful learning experiences in a way that is consistent with the work of Dewey and others who promote the experience of students as a focal point to education.

Understanding the importance of each of these elements that contribute to powerful learning experiences for students, it is important that pedagogy remain the driver of learning and that the ever-evolving access to information by way of technology serves to accelerate the shift

to a more powerful learning experience for students in classrooms. A sustained focus on a powerful learning experience will ensure that deeper learning occurs for all students (Schmidt & Cohen, 2013). This approach, however, represents a shift for many educators who have established traditional classroom settings and tasks. In a classroom that seeks to create powerful learning experiences, one in which teachers leverage the contributions of their students to better advance new and unique thought, it is most certainly the teacher's responsibility to devise not only the appropriate environment for learning, but also the rich experience that occurs within that environment.

The democratic classroom, for example, provides a model for educators seeking to make this shift. This model seeks to embrace the notion that all learners bring with them to the classroom unique perspectives and through those perspectives, students are able to gain an appreciation for alternative viewpoints and extend their own learning. The democratic approach allows students to engage in discourse with both teachers and peers to guide their learning while grounding it in real-world contexts, more specifically, social and political contexts (Clabaugh, 2008; Hess, 2009; Hooks, 2010; Morrison, 2008). Presenting students with choice in the way(s) in which they approach their learning in a manner that is democratic and engages them with alternative viewpoints of peers and teachers only serves to broaden the experiences of students and fosters a higher functioning, democratic society with informed participants (Hess, 2009). A democratic approach allows teachers who have developed an expertise in fostering inquiry to provide for the same development in their students, thus creating powerful learning experiences that provide students the opportunity to construct knowledge based on the learned or lived experiences of their own or their peers. In a democratic classroom, students are able to engage in discourse with those who offer diverse viewpoints providing a richer and deeper context for

learning and a powerful learning experience. In this way, students are producing learning as they become better informed and ultimately, they will know and understand more (Hess, 2009). This approach challenges schools to engage in a “way of thinking about what schools are for, about the sources of curriculum, and the uses of knowledge” by creating a classroom for and with young people allowing them to examine problems, issues, and concerns that exist in the real world (Beane, 1995, p. 616-617). However, the flaw in traditional approaches to education is that teachers place themselves at the center of the learning experience and often fail to consider the contributions of the students and their experiences to the processes of education (Dewey, 1938). These experiences often fail to engage students in powerful learning experiences. Though I cited the culturally relevant and democratic models of instruction, these models and others are easily incorporated into any classrooms that seek to engage students in the construction of knowledge based on the lived or learned experiences of their own or their peers. It is not the model itself that creates powerful learning experiences but the approach within each model that contributes to these experiences.

What then are the practical applications of the work of Dewey, Fullan and Quinn, and others as it relates to powerful learning experiences? If teachers commit themselves to creating powerful learning experiences in their classrooms, an environment in which students engage in deep thinking around real-world problems, they become committed to altering the instructional core for the benefit of all learners in their classroom. While a commitment to the traditional educational canon via prescriptive curricular approaches may produce contemporaneous results in student achievement, those who choose to create learning experiences that broaden the scope of the curriculum with a sense of transferability to more authentic contexts produce greater gains

in deep learning (Carrell & West, 2010). It is this commitment to powerful learning experiences that allows for the success of all students.

A commitment to developing powerful learning experiences, as suggested in the literature, is most effective when done with coherence throughout the system. The section that follows will explore the literature related to instructional program coherence.

Coherence

In order for the instructional core to advance powerful learning for all students, a collective, school-wide effort in which school administrators, coaches, and teachers, commit their work to improving the workings of the instructional core is necessary (Fullan, 2011; Newmann, Bryk, & Nagaoka, 2001; Bryk, 2010). Though instructional program coherence can apply to the systems at the district and even state levels, the purpose here is to apply the term system to the structures, programs, and practices that operate at the school level. As it relates to school-level systems, unfortunately, many reforms that are implemented represent a steady stream of innovations that are segmented, uncoordinated, and episodic (Fullan & Miles, 1992). Reforms often represent a blend of external and internal demands that challenge teachers in classrooms while failing to provide clarity and connection to priorities for student learning. Further, reforms typically are not supported by resources leading to failure in creating coherence across the entire school context (Hatch, 1999; Honig & Hatch, 2004). After all, teaching is a highly isolated and individualistic enterprise (Goodlad, 1983) which works in conflict with the important work of reform at the school level. Thus, whether reforms are able to produce positive outcomes “depends largely on how the school as a social context supports teaching and sustains student engagement” (Bryk et al., 2010, p. 24). Schools where learning improves have coherent instructional guidance systems that articulate the what and how of instruction (Bryk et al., 2010).

Newmann et al. (2001) define instructional program coherence as a “set of interrelated programs for students and staff that are guided by a common framework for curriculum, instruction, assessment, and learning climate and that are pursued over a sustained period” (p. 297). Thus, instructional frameworks that achieve coherence should not exist in isolation in the school or classroom setting. These frameworks should serve as the common thread that binds teaching and learning together in a systematic way in the school setting.

For schools to achieve instructional program coherence, Newmann et al. (2001) specify three criteria. They are:

1. A common instructional framework [that] guides curriculum, teaching, assessment, and learning climate. The framework combines specific expectations for student learning, with specific strategies and materials to guide teaching and assessment.
2. Staff working conditions [that] support implementation of the framework.
3. The school allocates resources such as funding, materials, time, and staff assignments to advance the school’s common instructional framework and to avoid diffuse, scattered improvement efforts. (p. 299-300)

The need for coherence in instructional programs stems from the positive correlation between coherence and student outcomes (Bryk 2010; Fullan, 2010; Newmann et al., 2001). By coordinating instructional efforts in a system-wide manner, school leaders are assured that teachers maintain focus on key learning priorities and pursue those priorities relentlessly (Fullan, 2011). To produce positive outcomes, school leaders support instructional approaches that embrace the characteristics of powerful learning experiences designed to positively impact the teaching and learning nexus (Fullan & Quinn, 2016; Reeves, 2011). Powerful learning

experiences are most effective when embedded in a dedicated instructional framework intent on addressing the role of students interacting with content and their teachers. In doing so, the first measure of coherence is achieved.

Fischer, Frey, and Nelson (2010) provide a model that illuminates the successful impact of focusing reform on the core of instruction. Specifically, their work centered on a school district in California intent on bolstering literacy achievement data. Recognizing that this district had long been committed to the adoption of curricular materials in order to effect change at the classroom level, Fisher, Frey, and Nelson worked to move beyond the adoption of prescribed curricular materials often predicated on defined lessons, pacing guides, and structures that limited teachers in acting on informed teacher judgments (Fischer, Frey, & Nelson, 2012). “The leaders of this school had neglected the importance of an instructional framework and the professional development needed to ensure that teachers, coaches, and administrators had a common vocabulary to discuss and implement their literacy practices” (p. 552). The leaders of this district worked to develop a clear, coherent framework with the intention of guiding teacher practices in classrooms. The reform work in this school was clearly designed to shift the interaction of teachers with students around content most notably in classrooms. This framework sought to “build capacity for teachers to make instructional decisions and increase responsiveness when students had difficulty (Fischer et al., 2012, p. 554). Though the teachers in this district used the aforementioned curricular programs, their success was fully realized when “teachers planned lessons based on an instructional framework that ensured that students developed increased competence and responsibility over time” (Fischer et al., 2012, p. 561). School leaders play a pivotal role in achieving instructional program coherence when they focus teachers’ working conditions and resources on the professional capacity of teachers to advance

student learning (Bryk et al., 2010). To achieve coherence that produces positive student outcomes, school leaders must involve themselves in change efforts to enhance teacher practice. By creating an environment in which school leaders are empowered to talk seriously with their teachers about what they're trying to accomplish in the classroom, reform aimed at coherent instructional frameworks can be realized. Hallinger and Heck (1999) indicate that mission-building is the strongest and most consistent avenue leaders have at their disposal to impact student achievement. Mission building is further bolstered by articulating a vision and setting clear goals for the organization, most importantly around instructional priorities. It is the work that leaders do with teachers that enhances a coherent instructional program. In this sense, the "leader becomes a context setter, the designer of a learning experience -- not the authority figure with solutions." (Fullan, 2001, p.112). In short, leaders create the conditions for coherence in ways that empower those "at the grassroots level [to] realize they own the problem [and] they also discover that they can help create and own the answer" (Fullan, 2001, p. 112).

The instructional dimension of school leadership directly impacts the dynamics of student engagement and learning (Bryk et al., 2010). School leaders, in working toward instructional program coherence should work on capacity of teachers, clarity of purpose, precision of practice, transparency, monitoring of progress and continuous correction (Fullan, 2011). When school leaders are able to invest in supporting the development of powerful learning experiences occurring in the instructional core, instructional program coherence can be achieved. Research is clear that when schools are guided by a common, coherent, and aligned instructional system growth in positive and equitable student outcomes can be achieved (Bryk et al., 2010). When school leaders invest in building the capacity of their teachers to invest in developing powerful learning experiences positive student outcomes are achieved.

As noted above, the importance of instructional program coherence extends beyond the impact on student outcomes and is an important factor in engaging teachers in a clear and consistent approach to teaching and assessment (Newmann et al., 2001). An instructional framework affords building leaders the opportunity to narrowly focus professional development efforts on the creation of powerful learning experiences that impact the core of instruction. Though the existence of an instructional framework does not ensure coherence, it can contribute to it. Thus, by providing the resources necessary through the development of human capital in schools, coherence dedicated to the instructional core can be achieved. To achieve coherence a strategic orientation must guide the efforts to allocate resources to support continuous improvement at the classroom level (Bryk et al., 2001). The strategic allocation of resources to a narrowly defined and coherent approach to the instructional core empowers leaders to allow initiatives and programs unrelated to a coherent framework to be ushered out of the system. When leaders empower teachers to commit to coherent structures centered on powerful learning experiences, positive learning outcomes are more likely to occur as resources remain committed to important factors that more readily shift practices at the instructional core (Bryk et al., 2010). Leaders that have found success in crafting coherent instructional programs when they view coherence as a process by which schools leverage external demands to strengthen students' opportunities to learn and not an outcome (Honig & Hatch, 2014).

The previous two sections detailed the development of powerful learning experiences designed with coherence in mind. The section that follows will provide insight on the degree to which powerful learning experiences, implemented with coherence in mind, can lead to equitable outcomes for students.

Powerful Learning Experiences and Equitable Outcomes

Dewey “taught us that we could change schools, that we could bring our woods-and-rivers adventures into the classrooms and enrich both in the process” (Elmore, 1995, p. 355-56). The preceding sections of this work have established a need for the careful development of powerful learning experiences for students in order to create a high-quality instructional core. Of note, leveraging the lived and learned experiences of students into the classroom experience is necessary to engage all students in powerful learning experiences that embrace student driven inquiry where learning is transferable to new and unfamiliar situations. The transferability of learning tasks to new and unfamiliar situations assumes an authentic learning experience for students in which learning is situated in a real world context. Learning that is transferable can also be described as authentic or real world in nature. These components of powerful learning experiences are not new in classroom settings. It has been established that this approach to the development of learning tasks dates back to the Progressive Era reformers of the early 1900s. Though these concepts are not new, the inclusion of these important elements of a powerful learning experience are not typically afforded to *all* students. Contemporary manifestations of John Dewey’s experiential learning perpetuate the idea advanced by Dewey nearly 100 years ago. Innovations such as the project based learning (PBL) and Deeper Learning (Fullan & Quinn, 2016) extend the work of Dewey to promote the idea of nesting a student’s learning in real world contexts with the intention of creating powerful learning experiences for students. Research suggests that too often, it is not customary to provide these components of powerful learning to all students, notably students of color, non-English speakers, or poor students (Resnick, 1987). The challenge for policy makers and teachers alike is to develop “educational programs that assume all individuals, not just the elite, can become competent thinkers” (Resnick, 1987, p. 7)

through powerful learning experiences. Research on instructional approaches that incorporate the characteristics of powerful learning experiences has shown that these methods can lead to positive educational outcomes, growth in academic achievement, and enhanced skills in problem solving and decision making (Stolk & Harari, 2014). However, this research also highlights the limitations around implementation to ensure all learners are provided these opportunities. Honoring the perspectives of all learners, placing full faith and trust in the contributions of all students extends the learning of all participants and can provide access to learning for those learners who have been left behind in a system that often provides rich, deep, and critical opportunities to only those thriving in traditional systems (Boaler, 2002; The Jasper Experiment, 1992; Marx, Blumenfeld, Krajcik, & Soloway, 1997). Creating classrooms where the voices of all learners are privileged and called upon to contribute to the growth of others in the learning environment, including the teacher, help to create a classroom as a cooperative “where everyone contributes to make sure all resources are being used, to ensure the optimal learning environment of everyone” (Hooks, 2010, p. 22).

In order for all students to leverage their educational experience for success beyond school, teachers and school leaders are challenged to identify ways to foster equitable outcomes. The power of instruction can be used for this purpose. Often, traditional approaches to instruction fail to address personal and cultural knowledge vital to motivating students to develop their own knowledge in concert with others. Further, in addressing personal and cultural knowledge, all students are better positioned to access school knowledge providing an environment where all voices and perspectives are privileged (Banks, 1993). An equitable approach to instruction provides students the opportunity to leverage the educational canon to become involved in a process of knowledge construction and production (Banks & Banks, 1995;

Banks, 1993). Engaging all students by incorporating their own experiences and culture, to construct knowledge with their peers and instructors, helps to ensure that all students are positioned to achieve positive outcomes.

This is not to suggest that schools and classrooms within them ignore vital skills and content that contribute to achievement. Rather, it requires teachers and those that guide them to be attentive to incorporating the culture of each student into the learning that occurs within classrooms. By doing so, educators can convey the message to students that attending school and acquiring knowledge are of equal importance, thus providing all students access to learning (Abdal-Haqq, 1994; Klug & Whitfield, 2003). The confluence of students' experiences, instructional approaches, and societal implications fosters a higher degree of engagement on the part of all students, in turn providing them a greater level of access and investment in the learning process. For "although we may have only a yearlong interaction with students, we ultimately have a lifelong impact on who they become and the kind of society in which we will ultimately live" (Ladson-Billings, 2006, pp. 37).

The research is clear that providing transferable and high-level cognitive tasks in which students are engaged with their peers and teachers in classrooms to construct learning can produce outcomes that benefit all students, in particular, those who have traditionally been left out of learning environments rich with powerful learning experiences. Unfortunately, research suggests that tasks requiring high-level cognitive work as well as those that require transfer of learning to new and unfamiliar situations are often absent in classrooms that include high numbers of traditionally disadvantaged students, specifically, students of color, students of lower socio-economic status, and students with disabilities (Williams & Wilson, 2010; Newmann, Bryk, & Nagoaka, 2001; King, Schroeder, & Chawczewski, 2010). While traditionally

disadvantaged students are less likely to be exposed to powerful learning experiences, the growth in achievement outcomes for all students who engage in work in classrooms that embrace the elements of powerful learning experiences is often realized. Importantly, the result of this research is consistent independent of the influence of students' race, gender, socioeconomic status, and prior achievement. Even more, the results are realized on both direct assessments of authentic intellectual performance and conventional standardized tests of basic skills and curriculum across all grades and all subjects studied (Newmann, Carmichael, & King, 2016).

Newmann, Bryk, and Nagaoka (2001), found positive outcomes for students when exploring the results of instruction that embraced high-level cognitive tasks for all students in a way that made learning transferable. In the study of classrooms in the Chicago Public Schools, they found a “consistent positive relationship between student exposure to high-quality intellectual assignments and students’ learning gains” (p. 22) on standardized tests of student achievement. Even after controlling for race, socio-economic class, gender, and prior achievement they realized learning gains that were 20 percent greater than the national average in classrooms that required students to engage in learning that was high in intellectual demand and authenticity. Further, across 437 classes in 19 schools, researchers found only “weak, statistically insignificant correlations between the quality of teachers’ assignments and the racial or socioeconomic composition of their classrooms and the level of students’ prior achievement” (Newmann, Bryk, & Nagaoka, 2001, p. 25). Even more, researchers in this study found that students with both high and low prior achievement levels appear to benefit about the same from exposure to authentic classroom assignments, an important element of a powerful learning experience, and in the case of mathematics, exposure to high-quality assignments benefits previously low-performing students *more* than their previously high-achieving student

counterparts. This research makes clear that highly transferable learning and high-level cognitive tasks, key components of a powerful learning experience, generate positive outcomes for not only able students but *all* students. Further, as the research indicates, student outcomes as a result of exposure to powerful learning experiences do not seem to be impacted by race, socioeconomic status or gender.

In a study of the way in which the structure of secondary school classrooms impact student learning, Lee, Smith, and Croninger (1997) provide further evidence that authentic learning experiences drive equitable outcomes. This study concluded that an authentic approach to instruction, an important component to a powerful learning experience, while benefiting all students, has an increased benefit for disadvantaged students. Drawing on a sample of over 9,000 students on the National Education Longitudinal Study (NELS) of 1988, the researchers explored the degree to which student learning in mathematics and science was influenced by the organization of the school, specifically, how typical and atypical instructional practices impacted student learning. Importantly, the study found that “instruction should be accomplished more authentically and that this type of teaching should be pervasive [in order for] academic gains to be equitably distributed” (Lee, Smith, Croninger, 1997, p. 141-142).

Similarly, in a study comparing a systems design based approach in science instruction to a scripted inquiry approach, schools found positive learning outcomes when employing a systems design based approach. Recall, student-driven inquiry was one component of a powerful learning experience. This systems design approach required students to articulate their own needs for learning through unique design; a process that provides an authentic and transferable learning experience for students independent of teacher scripted inquiry. Students who were engaged in the systems design approach were compared to students learning in a scripted inquiry

approach in which students were given the materials and procedural scaffolding for their learning by their teacher. The systems design approach yielded particularly positive outcomes for previously low-achieving African American students in general and as compared to their white counterparts. Further, African American students engaged in a systems design based approach realized eight times higher growth than their African-American peers who were provided a scripted inquiry approach (Mehalik, Dopelt, & Schuun, 2008). In this study, as well as those previously referenced, the research is both clear and compelling, embracing the elements of a powerful learning experience produces positive outcomes for all students and, in particular, those who typically have been left behind in traditional classroom structures.

Building on the previous sections, what follows is a sample framework to be used in this study. The Authentic Intellectual Work framework serves to provide powerful learning experiences for students and often produced equitable outcomes when implemented with coherence. The section that follows explores the literature related to this framework.

Authentic Intellectual Work

The work of Newmann, Carmichael, and King (2016) called Authentic Intellectual Work (AIW) is one example of an instructional framework designed to create powerful learning experiences for students in a high-quality instructional core that has been shown to produce positive, equitable outcomes for students. At the core of AIW are three critical components of powerful learning experiences upon which the framework rests; that all learning that occurs in classrooms engage students in construction of knowledge, through disciplined inquiry, with a value beyond school.

Though the existence of AIW in schools can contribute to a high-quality instructional core, it is certainly not a panacea. As an instructional framework, it is not designed to address

issues related to the overall student experience in schools. For example, the AIW framework does not include mechanisms to directly address student behaviors, mental health, or the existence of trauma in students. While we can be reasonably certain that providing students opportunities to engage in powerful learning experiences can result in greater confidence in learners, there is no mechanism in the framework that deals directly with the student experience, namely the social experience in schools. Further, while the AIW framework is designed to leverage the lived experience of students, the framework itself does not include components that are designed to foster strong relationship building between students and staff. Finally, as the framework is centered around the construction of knowledge, through disciplined inquiry, with value beyond school, it can be argued that framework assumes a level of content proficiency on the part of students that is not directly addressed in the framework. Without proficiency in content or appropriate scaffolding of their learning, students will likely struggle to construct knowledge through disciplined inquiry that has value beyond school.

Construction of Knowledge. Within the AIW framework, teachers are tasked with creating learning experiences that require students to construct their own knowledge based on experiences that they bring with them to the classroom. This “involves organizing, interpreting, evaluating, or synthesizing prior knowledge to solve unique or novel problems...[that] comes from tackling a variety of problems” (Newmann et al., 2016, p. 8). The task of creating knowledge based on the student experience coupled with support from teachers and peers is an important facet of developing learning experiences that ground student learning in relevant, real-world experiences, both critical elements of a powerful learning experience. When engaging in construction of knowledge, students are required to move beyond reproducing information that may have been previously learned. Instead, students are required to organize, interpret, analyze,

synthesize, or evaluate information, all requiring higher order thinking. In short, when constructing knowledge, students are creating their own original work and not reconstructing the work of others. The focus of learning tasks is predicated on the learning process and include high levels of student driven inquiry. Students who are constructing their own knowledge are solving problems that cannot be solved by “routine use of information or skills previously learned” (Newmann et al., 2016, p. 39). A student who is engaged in construction of knowledge might be designing a series of their own science experiments to arrive at a unique conclusion to a complex problem, or generating conclusions based on data sets provided to them that are unique and began with a prediction. In each of these cases, students have developed their own unique conclusions based on complex problems presented to them or, in some cases, developed on their own. This approach requires high-level cognitive work along with student driven inquiry, both critical to powerful learning experiences.

Disciplined Inquiry. The work to construct knowledge alone does not ensure a powerful learning experience. Coupled with the construction of knowledge is the process of disciplined inquiry that requires that students “(1) use a prior knowledge base often grounded in academic or applied discipline, (2) strive for in-depth understanding rather than superficial awareness, and (3) develop and express their ideas and findings through elaborated communication” (Newmann et al., 2016, p. 8-9). Through disciplined inquiry, students are addressing content or problems while learning and employing skills. Disciplined inquiry considers “the extent to which teacher tasks and instruction, and student work, put relevant knowledge to work for complex understanding of important content that is expressed through elaborated forms of communication” (Newmann et al., 2016, p. 41). Importantly, students will also engage in elaborated communication requiring them to use complex forms of communication to communicate and defend their understanding.

This doesn't necessarily mean the tools they use to communicate their original thinking are of primary importance. Rather, it includes extended narratives, justifications, dialogue, or analogies amongst other complex approaches to communicating ideas. A student engaging in disciplined inquiry may be asked to defend their position on a political candidate by first engaging research, then developing and communicating the reasons for supporting the candidate of their choosing. This high-level cognitive work along with the work to transfer learning to new and unfamiliar situations are two important components to a powerful learning experience.

Value Beyond School. A powerful learning experience must also be transferable to situations outside of the classroom. Newmann et al. (2016), indicate that “intellectual challenges raised in the real world beyond the classroom are often more meaningful to students than those contrived only for the purpose of instructing students in school” (p. 10). It is the value beyond school, when integrated into tasks that require construction of knowledge, through disciplined inquiry, that completes an authentic learning experience aiding in accelerating learning outcomes. When learning tasks have value beyond school, students are connecting their classroom learning with relevant questions, problems, and issues that students can find in the real world (Newmann et al., 2016). At the highest levels of value beyond school, a student must seek to influence an audience beyond the classroom teacher. A student who composes their own, unique piece of music and performs for an audience outside of their classroom is engaging in work that has personal, utilitarian, or aesthetic value. A student who seeks to influence a local government body by writing a letter defending their own position on a political issue is engaging in work that has value beyond school. These powerful learning components are important to creating a high-quality instructional core and equitable outcomes.

The previous section explored the components of the AIW framework and the impact it can have on creating powerful learning experiences for students. What follows is an exploration of the way in which building teacher expertise and capacity can support the development of powerful learning experiences for students.

Teacher Expertise and Capacity

Though the focus on powerful learning experiences contributes to positive and more equitable outcomes for students, those creating the environment in which students learn are key to driving outcomes. Teacher expertise and practice, as indicated in extensive research, is one of the most important factors in determining student success (Darling-Hammond & Ball, 1998). To that end, investment in the capacity of the teachers is crucial to the success of any reform or framework.

AIW Professional Development. When schools create structures that provide opportunities for teachers to develop powerful learning experiences in their classrooms, positive learning outcomes for students are realized. Recall, the idea that “teachers mediate all relationships within instruction” (Cohen & Ball, 1999, p. 4) including the relationships between students and teachers, students and students, students and instructional materials, and students and technologies. The AIW framework includes job-embedded professional development aimed at addressing the core of instruction. To do this, teachers meet in teams for the purpose of assessing the work of their peers in order to improve instruction in classrooms consistent with the components of AIW. These teams are ideally interdisciplinary in nature and represent different grade levels to encourage a unique level of feedback that may not have been available in more traditional, homogeneous structures of professional learning.

AIW teams meet regularly to critique teacher tasks, student performance, and instruction of their peers while receiving feedback on their own lessons. According to Newmann, King, and Carmichael (2018), the intent of the scoring process is not to evaluate student work for purposes of grading, but to assess the work of the teachers relative to rubrics established for each of the components of AIW. “The scoring process alone will help teachers reflect on the kind of learning that should be most valued” (p. 35) and will serve to guide the impact of powerful learning experiences in a high-quality instructional core. Feedback on the criteria spurs specific suggestions from team members to revise learning tasks to better meet criteria. This approach supports the tethering of the framework to the intimate work done in classrooms.

While the intention of the scoring meeting is to provide job-embedded professional development for the purpose of collective inquiry and deep reflection on the part of teachers, student performance is often an additional and more significant benefit to the design of this framework. Often “scores on student work may be low not because students were incapable of producing more authentic intellectual work, but because the task failed to call for construction of knowledge, conceptual understanding, or elaborated disciplinary communication” (Newmann et al., 2009, p. 37). Thus, when scores on student work are consistently low, teachers are able to use the feedback to address learning tasks relative to AIW standards to improve their instructional practices in order to elevate the performance of their students (Newmann et al., 2009, p. 37). The scoring structure included in the AIW framework is what “distinguishes AIW collaboration from most teachers’ teaming experiences, which more typically focus on discussing students, curriculum, or data—not how to improve each individual teacher’s practice” (Newmann et al., 2016, p. 90).

Another unique and important feature of AIW professional development is the inclusion of building administrators on teams. Building administrators participate in scoring exercises just as all teachers do. The inclusion of building administrators in this capacity signals to the staff that he or she is engaged as a learner while serving as an instructional leader. The Iowa Department of Education sponsored statewide professional development to support teachers in designing instruction and assessments aimed at increasing student Authentic Intellectual Work. As a result of this process, administrators at participating schools reported that “collective trust increases as the team works together over time” and that “administrators see [teachers] showing creative, critical thinking and constructive ways to help one another that would otherwise not be observed” (Newmann et al., 2016, p. 95). Additionally, teachers begin “to see administrators in new ways, no longer as their boss but instead as a fellow educator experiencing the effort and joy of challenging and intellectual work” (Newmann et al., 2016, p. 95).

As previously stated, creating coherence requires the conditions for learning be developed for those working to develop a high-quality instructional core. The AIW framework embraces the development of those conditions through its incremental design for implementation. It is recommended that implementation begin with pilot teams and be scaled to an entire staff, school, or district over a two or three year period. This approach ensures that sufficient capacity is built in school leaders and pilot teams to support the others who will participate later. In doing so, small successes can be realized and positive results can drive more significant growth of the AIW process ensuring that expansion is justified (Newmann et al., 2016). This approach provides the conditions necessary for a coherent implementation of this framework.

In sum, the four guiding principles of AIW implementation provide the justification for the adoption of this framework to drive powerful learning experiences in schools. The first of those guiding principles, “The Power of Being Authentic: Professional learning itself should reflect AIW,” suggests that teachers and administrators working to adopt AIW should employ similar approaches to learning that are expected of students. Namely, that “they construct their own knowledge to reach in-depth understanding of how standards might improve their practice rather than simply complying or memorizing AIW standards” (Newmann et al., 2016, p. 97). Creating these conditions for teachers makes the learning for all within the school authentic, driving the school to a place where a high-quality instructional core can become a reality.

The second of the four guiding principles, “The Power of the Collective: AIW professional learning should build a strong learning community,” suggests that this collaborative approach to inquiry results in stronger teams (Newmann et al., 2016). A large group commitment represents a significant investment of resources which I have established as a critical component of coherent implementation of instructional frameworks that lead to powerful learning experiences in a high-quality core of instruction.

The third of the four guiding principles, “The Power of the Organic: AIW implementation should vary with context,” further promotes the development of a culture of learning and conditions that support the growth of students and teachers. It is important that “without compromising the fidelity of the AIW framework, teachers, teams, and schools must be supported in charting their own way [as] without that level of autonomy, the hard work and buy-in that AIW success requires will not emerge” (Newmann et al., 2016, p. 98). This deliberate approach supports the coherent implementation of the AIW instructional framework as it further

creates the conditions for an effective culture of learning that is necessary in the development of a high-quality instructional core.

The fourth guiding principle, “The Power of Risk-Taking: Taking intellectual and professional risks should be supported,” serves to further extend the culture of learning required of an instructional framework that supports a high-quality instructional core. Supporting teachers in risking reputation or pride in their work by exposing classroom experiences to their peers is one that fosters a culture of learning and serves to break down the walls of the schools in which teachers serve. This commitment to supporting risk provides for a culture in which the advancement of student learning in ways that include high-level cognitive work, student inquiry, and transfer of learning to new and unfamiliar situations. Absent the support for risk taking, it is likely that instruction proceed in a way that is more traditional and fails to serve the needs of *all* students.

Supporting AIW Research. Investigation of the performance of students has provided insight into AIW’s impact on outcomes. Research suggests that there exists no other initiative that “provides the system of support as comprehensive and integrated as AIW...that teachers routinely use to evaluate and improve teaching and learning” (Camburn, 2013, p. 1). These researchers suggest that students will realize better academic achievement, engagement, and authentic work performance outcomes if they have more opportunities to engage in work that meets AIW standards” and that “learning experiences are more likely to lead to understanding and knowledge transfer across contexts when learners actively construct knowledge rather than passively receive it” (Camburn, 2013 p. 5).

Further research done in the years spanning 1990 to 2013 provides greater insight into the impact of Authentic Intellectual Work in schools. One study conducted by the Center on

Organization and Restructuring of Schools (CORS) and another called the Chicago Study of Conventional Achievement revealed positive results in areas of achievement particularly as it pertained to measures related to traditionally marginalized groups of students. Both studies showed strong relationships between authentic instruction and student achievement. For example, the research showed a positive difference of 30 percentile points on standardized measures of achievement between students who experienced pedagogy that was highly authentic as compared to those who experienced low authentic pedagogy (Newmann et al., 2016). Further, students who received highly authentic learning tasks gained about 20% more in basic skills on standardized measures of achievement and 40% more than students receiving the lowest level of authentic tasks (Newmann et al., 2016). Even more, these studies found that “authentic instruction and assignments bring significant benefits to students of any race, ethnicity, socioeconomic status (SES), or gender” (Newmann et al., 2016, p. 78).

In sum, research has shown that

in hundreds of schools in different communities throughout the world, with diverse student populations in Grades 3-12, and in the subjects of mathematics, social studies, language arts, and science...tremendous achievement advantages for all students (regardless of gender, race, or socioeconomic status) whose teachers made higher demands of Authentic Intellectual Work” (Newmann et al., 2016, p. 21).

The AIW framework provides schools with a clear direction to implement an instructional framework, aimed at the instructional core across grades and subject areas for schoolwide coherence, centered on powerful learning experiences for students all in order to achieve equitable outcomes for students. By developing “criteria and specific standards for evaluating instruction and student work [in order to] stimulate teacher dialogue and cooperative

planning within and across grade levels and subjects, AIW creates coherence in teaching and learning” (Newmann et al., 2016, p. 21). As these criteria and standards focus clearly on the classroom where the intersection between students, teachers, and content occur, AIW provides an effective framework to address the workings of the instructional core. Even more, the framework itself is predicated on constructing knowledge through disciplined inquiry, with a value beyond school. It is the intersection of these elements that creates powerful learning experiences for students leading to positive and equitable outcomes.

Summary of the Literature

Shifting practices in the instructional core by way of an instructional framework predicated on powerful learning experiences for the purpose of driving equitable outcomes has been studied extensively. The preceding review of the literature highlights the research that exists. The conditions that exist in schools that allow for successful implementation of instructional frameworks that impact the instructional core through powerful learning experiences are less clear. It can be reasonably assumed that strong instructional leadership, a well-developed culture of learning, and investment of resources all support the implementation of these frameworks though the research about how each contributes to successful implementation of instructional frameworks is less definitive.

I believe that the adoption of instructional frameworks in schools is well-intended by many who choose to do so. The failure to study the conditions that allow for the adoption of these frameworks often leaves the adoption as one that exists in name only. I believe that by studying the conditions around implementation of instructional frameworks, specifically AIW, the connection of these components through a well-defined research process can serve to assist school leaders in creating the conditions that produce positive and equitable outcomes.

CHAPTER 3: Research Methodology and Design

Introduction of Methods

Exploring conditions and practices that promote the successful implementation of instructional frameworks that improve the instructional core and promote powerful learning experiences for students will be impactful to my own work and the work of others. As a researcher, exploring these conditions in schools that have successfully done so is instructive. As a practitioner, engaging in the work to create these conditions provides a degree of authenticity to the work I set out to do as a researcher. This duality served as the foundation for my study of instructional frameworks, namely Authentic Intellectual Work (AIW).

As discussed in Chapter 2, the effectiveness of AIW, an instructional framework designed to improve the instructional core and promote powerful learning experiences for students, has shown to enhance student achievement outcomes in a way that is equitable while proving effective in shifting the practices of teachers in classrooms (Camburn, 2013; Newmann & Associates, 1996; Newmann et al., 2016; Newmann, Marks, & Gamoran, 1996). What then, makes the implementation of this and other instructional frameworks effective in schools that have successfully done so? Consider, of the 101 schools that adopted the AIW framework beginning in 2007-08 across the state of Iowa, only 5 had dropped the framework from their instructional program through 2017 (Camburn, 2013). Though not all schools implemented the framework with the same degree of success, the importance of exploring the reasons behind successful adoptions was of particular interest to me in order to inform future practice. As such, I set out to explore conditions and practices that promote successful adoption of instructional frameworks by examining AIW as an exemplar while engaging in the work of a practitioner/researcher to experience and invest in a formal adoption, grounding my research in authentic application.

The question at the core of this study was: In schools that have adopted an instructional framework to improve the instructional core and promote powerful learning experiences for students, what are the conditions and practices that contribute to successful implementation of that framework? It was my intention to seek answers to this question as they exist in real-world contexts while working to immediately integrate the research and the learning into my work as a practitioner to advance the study of conditions and practices that support successful implementation of instructional frameworks.

Quantitative Participatory Action Research and Comparative Case Study

Qualitative research “is a situated activity that locates the observer in the world” (Denzin & Lincoln, 2005). Given my intent to engage in this study as both researcher and practitioner, the characteristic of situating the observer within the context of the research was a critical aspect of the design of this study. As qualitative research is inductive, I chose to incorporate into this study both the components of Participatory Action Research (PAR) as well as the case study approach which was bounded and included study of a phenomenon in a real-life context. By embracing the emergent design of the qualitative approach, the research proved to be loosely prescribed through the research process. The design of the research shifted as new findings led me to deeper questions. Specifically, the findings our team encountered in the PAR sample helped focus the questioning and exploration we conducted in the case study sample. Additionally as qualitative research is reflexive in nature, I was able to leverage my experiences derived from my background as a practitioner to interpret the results of my study (Creswell, 2013).

Merriam (2009) identifies four characteristics of qualitative research. They are: a focus on meaning and understanding, the researcher as the primary instrument for data collection, research as an inductive process, and rich description. With these four characteristics as

guidelines for qualitative research, I was able to effectively immerse myself in the continuous cycle of learning generated by this iterative process. The study design allowed me to focus on a deeper understanding of conditions and practices that supported implementation of instructional frameworks, namely AIW. Qualitative methods were best suited for this goal. My role as a district office administrator in a school district of approximately 6,500 students provided me the unique opportunity to situate myself in the research as a part of the proposed PAR study.

Specifically, the findings our team encountered in the PAR sample helped focus the questioning and exploration we conducted in the bounded case study sample where I conducted my research. Though the intention was to match schools that served as both the case study and PAR sample in size and demographic, this was not possible after encountering difficulty in identifying a case study sample. This will be discussed in greater detail in Chapter 6. Through this approach, I was able to both engage in the inductive process of researching a single case study and apply my learning to a comparison school in a PAR study. This process allows for a rich description of both proven conditions and practices that support implementation of instructional frameworks and of the results of applying the research immediately to new scenarios by way of a PAR study.

Participatory Action Research. The “recursive and dynamic” (Merriam, 2009, p. 169) nature of qualitative research positions my study to include both PAR and case study components. Moreover, it is important to fit the approach to research for its purpose, in its proper context, in its time (Lawson et al., 2015). PAR, a derivative of action research, was the most appropriate model in this instance as a means to serve as a researcher/practitioner in a school setting advocating for shifts in instruction that address the workings of the instructional core. Lewin (1951) suggests that “the best way to understand and gain knowledge about any phenomenon is by trying to change it in its naturally occurring contexts” (Lewin as cited in

Lawson, 2015, p. 5). As a researcher situated in the school context, PAR provided opportunities for exploration, implementation, and elaboration of ideas while recasting the role of the researcher into that of a scholarly change agent. In this case, PAR involved a process of inquiry, collaboration, and mutual transformation. In this study, the researcher was also the researched. The research problem and questions were formulated in collaboration with participants while the traditional subject-object relationship in research was transformed into a subject-subject relationship through dialogue (Ayala, 2009; Herr, 2017; Anderson, 2017). The following characteristics help to define PAR more clearly and helped to construct this study:

- A vision of social events as contextualized by macro-level social forces.
- Theory and practice are integrated.
- The subject-object relationship is transformed into a subject-subject relationship through dialogue.
- Research and action (including education itself) become a single process.
- The results of research are immediately applied to a concrete situation (de Schutter & Yoppo, 1981, p. 68 as cited in Herr, 2017).

Often utilized to engage in social causes as a means to challenge systems, PAR aims to transform both theory and practice and views these two things in a mutually dependent manner in addition to focusing on the interrelationship between the individual and their social environment (Kemmis & McTaggart, 2005). Because PAR often focuses on issues of equity, I was able to use the approach to examine conditions and practices in schools that promote more equitable outcomes for students by creating powerful learning experiences by addressing the instructional core.

While achieving equitable outcomes for students was a part of the research question for this

study, the measurement of the outcomes in a quantitative manner was not. This will be discussed further in Chapter 6.

This study utilized a PAR study in a school setting in which building level administrators and teachers were actively working to implement the AIW framework to promote positive and equitable outcomes for students. The collaborative approach of the PAR framework provided a unique opportunity to apply research, in real time, in a school setting that advanced the aims of creating powerful learning experiences for students. Using the PAR approach, I was able to analyze both building level administrators and teacher's work while employing a third person approach to evaluating my own work as an advocate for implementation of AIW.

The study allowed me to serve as its lead researcher in collaboration with an Inquiry Team. However, the success of the study was dependent on stakeholder contributions to knowledge generation and engagement in real-world problem solving (Lawson et al., 2015). Foundational to this process was the participation of co-researchers who serve as change agents and participants themselves. The PAR component occurred in a single school setting working with a team comprised of a building-level administrator and instructional staff, including three core content teachers, a special education teacher, a literacy specialist, and an instructional technology coach who worked together to successfully implement the components of the AIW instructional framework. Importantly, PAR emphasizes the need for “nonhierarchical and engaged relationships between inquirers and participants” (Tashakkori & Teddle, 2003, p. 329) allowing our team to function as co-researchers in this process. While unique, this collaborative approach to research mirrors the approach that I am advocating for students who benefit from powerful learning experiences that, by my definition, include student constructed knowledge based on lived or learned experiences of their own or their peers. This process proved instructive

as I engaged in research that paralleled the powerful learning experiences we desire for students in classrooms. This approach helped to extend my thinking and contributions to those that serve to benefit most from this study, the students.

Single Comparative Case Study. The PAR component of the research allows me to ground my research in practice. A comparative case study provides the foundation for the work I will do as a PAR lead researcher. Creswell (2013) defines the case study as a “qualitative approach in which the investigator explores a bounded system (a case)...over time, through detailed, in-depth data collection involving multiple sources of information...and reports a case description and case-based themes” (Creswell, 2013, p. 73). I utilized a comparative case study to explore, in depth, the conditions and practices that exist in a mature AIW school. I will further detail the components of a mature AIW school when discussing the sample later. The intention of the comparison case study was to gather data from the sample to apply to inquiry cycles within the PAR sample. Identifying the comparative case study proved problematic. The AIW Institute provided a list of mature AIW schools based on their previous work to implement AIW in each. I made contact with five schools that implemented AIW prior to 2018. Only one proved viable as a mature AIW sample. The delay in this process proved difficult to use data gathered from the comparison case study to inform inquiry cycles in the PAR sample. Instead, the comparison case study provided data that allowed me to generate conclusions regarding conditions that existed in both samples that supported effective implementation of the AIW framework in two distinct contexts.

When choosing the single case to be studied, I chose one that was intrinsic in nature. The intrinsic case study is one that is “undertaken when the researcher is interested in the particular case itself -- it is intrinsically interesting” (Merriam, 2009, p. 48). As I worked in two distinct

contexts to gather data associated with conditions that support successful implementation of an instructional framework, the mature AIW school in particular provided intrinsic value to me as a researcher. The data gathered from the mature AIW school provided intrinsic value to me as my experience as a researcher-practitioner. The findings derived from the mature AIW school proved to be confirmatory as we implemented AIW In the PAR setting.

Benefits to the Researcher Practitioner Partnership. The PAR study with a comparative case study is predicated on the successes that have been proven to occur in a Research Practice Partnership (RPP). Though this study did not strictly follow all of the principles of a true RPP, the benefits derived from connecting research to practice was a defining feature of this design as RPPs focus on problems that practitioners want to solve rather than exclusively addressing questions researchers want to answer (Conaway, 2019). While educational leaders and policy makers might consider research when implementing programs or interventions, it is seldom the case that researchers and practitioners work together on problems of practice. The PAR sample gave me the opportunity to work not only as a practitioner, but an opportunity to work alongside practitioners to study conditions and practices, in real time, that led to successful implementation of the AIW instructional framework. The result was a relationship that was “intentionally organized to build sustained relationships between researchers and practitioners as a means of improving practice” (Conaway, 2019, p. 6). Additionally, these partnerships between researchers and practitioners have been shown to improve student outcomes, impact teaching practice including the building of teacher capacity, and address persistent problems of practice all while allowing greater use of research in decision-making (Coburn & Penuel, 2016; Donovan, 2013; Penuel, 2014; Tseng, 2012). Importantly, the benefit of the researcher practitioner partnership allowed me to interact with practitioners to

solve problems as they developed when the practitioners needed resolution most (Penuel, 2014). This arrangement provided me the opportunity to advocate for change within the context of the PAR portion of my study as the framework was being implemented.

By employing a PAR study with a comparative case study, I was able to explore varying levels of the school organization. My work in both contexts provided me the ability to observe implementation at the policy level, the district level, the school level, and even the classroom level. Most importantly I was able to study the manner in which the AIW framework impacted the core of instruction in schools by working with and alongside teachers, building-level administrators, district-level administrators and even policy makers. Using the case study approach, I was able to gather data around this topic. As I gathered data on the varying levels of the school organization, I was able to immediately work to act on the data in the PAR school providing a rich experience to make this research and learning authentic. The recursive nature of the data collection and its subsequent use allowed me to leverage the inquiry cycles inherent to the PAR study design.

In both the PAR study and the comparative case study, I utilized the school setting as my unit of analysis. While there was merit to examining the conditions and practices that lead to successful implementation of instructional frameworks at the district level, the study was positioned to examine powerful learning experiences that occur in the instructional core. As a result, practices and conditions at the school level serve as the focal point of the study. Further, I did not devote significant attention to policy. I focused the research on practices that occurred in classroom settings that contributed to instructional coherence in the school setting. By utilizing the school setting as the unit of analysis, I focused on the work of school level leaders and classroom teachers with less focus on district-level personnel focused on policy.

Sampling Criteria and Participant Selection

Merriam (2009) indicates that the process of developing criteria for creating a sample and choosing its participants “is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (p. 77). Specifically, the use of purposeful sampling provided information-rich cases that allowed me to learn a great deal about the specific conditions and practices that supported the successful implementation of instructional frameworks using AIW as an exemplar to be studied (Patton, 2002). Because this study was situated around a PAR sample and a comparative case study sample, I employed purposeful sampling to gain deep insight into both a mature AIW school along with an emerging AIW school at the beginning stage of implementation. The emerging AIW school was utilized in the PAR component of the study. This school is one where I served as a member of the team working to implement AIW.

To best engage two schools in this study, I chose to use unique sampling which is based on “unique, atypical, perhaps rare attributes or occurrences of the phenomenon of interest” (Merriam, 2009, p. 78). The mature AIW school was chosen based on the following characteristics:

- Fully implemented AIW for at least three full school years.
- Included a staff that had been through all the formal stages of AIW training.
- Included the AIW process in all academic settings and did not exclude specific programs, departments, or classrooms.

Guided by Bryk et al.’s (2010) framework of essential supports, the mature AIW school also included:

- School level leaders who led through the process of AIW implementation.

- A staff characterized by high professional capacity characterized by the teacher orientation toward innovation, teacher involvement in professional development both internally and externally.
- A student-centered learning climate characterized by minimal disruptions to the learning environment and a strong orientation toward achievement with minimal disruptions as reported by teachers relative to incidence of classroom disruptions.
- A strong instructional guidance system characterized by the teaching of basic skills as well as a strong emphasis on application of learning; teachers were provided support to ensure these guidance systems inform their decisions in the classroom.

The sample chosen for the PAR component of the study is an AIW school that was at the early stages of implementing the framework. This sample was used to determine in real time, through PAR, the conditions that advanced implementation and allowed for a reach into the instructional core. Again, informed by the work of Bryk et al. (2010), this sample included:

- A school leader that was committed to implementing AIW in a way that is inclusive.
- A commitment to innovation on the part of teachers by serving on AIW teams.
- Strong systems in place to support instructional guidance including mechanisms to manage student disruptions to learning.
- Strong instructional guidance systems with sound approaches to curriculum indicating a penchant for instructional guidance.

In choosing the two schools to be studied, it was important to consider the characteristics that provided opportunities for comparison. Secondary schools were the focus of both the PAR component and the case study component, though the mature AIW school included grades 7 through 12 while the PAR sample included students in grades 5 through 8. These characteristics

supported the measurement of powerful learning experiences across a variety of classrooms as well disciplines indicating the effectiveness of the instructional framework across varied domains. The schools chosen for each component of the study exist in different school districts providing a more effective comparative approach.

In order to identify a purposeful sample, I engaged the AIW Institute to assist in identifying an AIW school (Appendix A). Their expertise along with their experience in working with schools that have implemented the AIW framework in multiple states provided me with the confidence in their expertise to help to identify a sample that meets the criteria set forth. After engaging the AIW Institute, I was able to connect via teleconference with leaders of the mature AIW school to establish the characteristics that were identified in choosing a sample.

The Beamon Community Secondary School is a secondary school serving students in grades 7 through 12 located in a rural community in the midwestern United States. According to the 2020 United States Census, the community of Beamon itself has a population of 2,924 residents while the Beamon Community School District has a total population though the district spans a number of rural communities spanning two counties. About 4% of residents in Beamon experience poverty while the Beamon Community School District reports about 33% of students qualify as low socioeconomic status. While the community of Beamon is comprised of 95% white residents with no other ethnic or racial group registering above 1%, the Beamon Community School District includes the following makeup of students: 89.8% White, 6.9% Hispanic, 2.4% Multi-racial. Other racial groups represent less than one percent.

Because I served as the lead researcher for the PAR component of this study, I worked in a school in the district which I am employed that was in the beginning stages of AIW implementation (Appendix A). This school district is a district of approximately 6,500 students

located in a suburban area in the Midwestern United States. To choose a specific school from this district, I interviewed administrators to ensure they met the criteria I established for an emerging AIW school. Through the interview process, I was clear about the parameters of the study as we worked as collaborative partners in both implementing AIW and studying its implementation simultaneously.

Rock Valley Middle School is the sole middle school in the Rock Valley School District. The school district includes the City of Rock Valley and four surrounding townships. The district is located in an area of the United States that is characterized by mid-size, largely suburban and rural communities with a strong industrial economic base. According to 2020 United States Census data, the City of Rock Valley itself has a population of roughly 27,000 people. About 11% of Rock Valley residents experience poverty though the schools of the Rock Valley School District report about 35% of students who qualify as low socioeconomic status. The racial demographics of the community are as follows: 88% White, 2% Black, 2% Asian, and 6% from two or more races. Other racial groups represent less than a percentage each.

Data Collection Techniques and Methods

Richards (2015) refers to the early stages of the qualitative research process as making data. The process of making qualitative data involves the “researcher seeking to learn from the data, rather than test a theory already arrived at” (p. 39). The process of making data begins far before interviewing school personnel or conducting observations. Indeed “the worst way to start would be the way most often taken, by creating rigid research ‘instruments’, like questionnaires or focus group protocols, in advance of understanding the situation being studied” (Richards, 2015, p. 43). With this in mind, I employed a data collection process that was iterative and encompassed the flexibility necessary to be able to learn from data in real-world settings as I

encountered it. The design of this study involved situating myself as the researcher within the context of the population being studied at two separate school sites. The PAR site and the comparative case study site required different levels of depth as it related to the role I played as a researcher. In each, I utilized the interview, document analysis, observations, and a data journal as a means to gather my data. It is important to note that the research process and protocols at the PAR site differed from that of the case study site. The PAR sample required me to gather data through interviewing or observation and initiate action as a response to the data that was gathered through five inquiry cycles. This process was not scripted. Rather, each interview prompted action in collaboration with the Inquiry Team to develop actions that would create new circumstances for data gathering and action. This process differed from the case study site where I worked to follow the data resulting from a series of interviews. In short, the PAR study required me to make meaning, take action, and intervene along the way, providing for a different depth in the research and action processes (Herr & Anderson, 2015; Lawson et al., 2015) than the case study sample.

Gaining access and establishing rapport with those who lead and work in the schools was one that proved challenging to identify those most closely tied to the work of AIW in schools. The PAR sample, as a result of my previous work in the district, led me immediately to administrative leaders responsible for implementation of the framework. My work began with the building principal of Rock Valley Middle School, Principal Kara Cooper. Gaining entry involved the alignment of my work as a researcher with the work happening in a professional setting to implement the AIW framework. The established working relationship that existed between me and the building principal allowed for entry into a study with a familiar sample. Additionally, her work with the staff of Rock Valley Middle School allowed us to quickly

identify key actors in the implementation of AIW and establish an Inquiry Team in short order. Both the building administrator, the Inquiry Team, and those involved with implementation were made aware of the research questions at hand in the study. The following served as Inquiry Team members in the PAR sample:

Chad Buboltz, Assistant District Administrator for the Rock Valley School District

As a participant in the PAR component of this study, I participated in all Inquiry Team meetings and worked with district teams to implement the AIW framework. My work in the Rock Valley School District began in 2003 as a social studies teacher. In 2011, I became an assistant principal at the district's grade 7 and 8 middle school. I transitioned to a high school assistant principal in 2013 before moving into a district-level administrator role where I have been responsible for leadership development among a variety of other responsibilities. Most notably, I oversee the Curriculum, Instruction, and Assessment Department, the Pupil Services Department and contribute to building the district's annual staffing plan in conjunction with the Human Resources Director.

Kara Cooper, Rock Valley Middle School Principal

Cooper serves as the principal of Rock Valley Middle School. During the study, the District transitioned to a new middle school serving students in grades 5 through 8. In July of 2022 Cooper was appointed principal of Rock Valley Middle School, one year prior to its opening. Before serving as the principal of Rock Valley Middle School, Cooper was the principal of the District's middle school that housed all students in grade six. She served in this capacity for seven years. Prior to her stint at the 6th grade middle school, Cooper served for three years as principal at an elementary school in the Rock Valley School District. She also worked as a special education teacher in Rock Valley for six years at the middle school level. Cooper was

awarded the administrator of the year in the Rock Valley School District for the 2022-23 school year. She is currently pursuing her Educational Doctorate.

Rock Valley Middle School Inquiry Team, Education Academy

The Inquiry Team was composed of six staff members who work in a grade-level academy at Rock Valley Middle School called the Exploration Academy. The Inquiry Team includes:

- A veteran Science instructor of 26 years. This instructor participates on a variety of school and district leadership teams and was named the district's middle school teacher of the year for the 2018-19 school year.
- A social studies teacher who has been a teacher in Rock Valley for eight years. He has been a social studies and mathematics middle level teacher for a total of 18 years.
- A mathematics teacher who has been at Rock Valley Middle School for four years. She has served as a mathematics instructor for a total of ten years.
- A veteran special education teacher who has served students with emotional and behavioral disabilities at Rock Valley Middle School for eight years. He's been a special education instructor for a total of 19 years and also serves as the Special Education Department chairperson. He has also served on Rock Valley Middle School's Building Leadership Team where he has implemented strategies aimed at full inclusion of special education students in universal classroom settings.
- An instructional technology coach who has been in her position for eight years. Prior to serving in her role as instructional technology coach, she was a Spanish teacher for three years.
- Rock Valley Middle School's Literacy Coach who has been in the position for 13 years. Prior to serving in her capacity as Literacy Coach, she served as an English Language

Arts teacher in the Rock Valley School District for 8 years. As the school's Literacy Coach, she leads the school's Literacy Team and is a member of the Building Leadership Team.

In addition to the collaborative work with the Inquiry Team including the building principal, I was able to conduct an additional four interviews with staff members involved in the initial implementation of AIW and who did not serve on the Inquiry Team. Additionally, I observed six scoring meetings and four professional development engagements with the entire staff of Rock Valley Middle School.

For the purpose of the case study component, I sought access to a secondary school that initiated implementation of AIW no later than the beginning of the 2017-18 school year. It is important to note that a typical AIW implementation encompasses three school years from pilot to full implementation. Due to the COVID-19 Pandemic, it was important that the three years of implementation occurred prior to the 2020-21 school year, when many schools had their school years disrupted by virtual learning scenarios. Identifying this case study proved to be more challenging. I began the entry process by interviewing the leader of the AIW Institute, an organization supporting schools in the implementation and development of AIW. Dr. Samantha Lawrence worked with the AIW Institute as well as serving as a consultant to the case study sample, Beamon Community Secondary School. Through her work with schools throughout the United States, she was able to provide me with a list of schools that successfully implemented AIW in schools with particular attention to secondary school settings. Unfortunately, after contacting four schools that would provide appropriate samples, I learned the implementation of AIW stalled in each as a result of the COVID-19 Pandemic. Each conversation with each school leader provided greater insight into schools that sustained AIW implementation through the

pandemic. In the end, I was able to identify a school that fit the criteria set forth in this study for a comparative case study. The school identified for data gathering in the comparative case study, Beamon Community Secondary School, is a secondary school that exists in the midwestern United States that began implementing AIW in 2017. This school continues to employ the AIW framework as of the December 2023 with plans to continue the work of AIW in professional development and within classrooms in their secondary school spaces.

Once I gained entry into the case study school, I met with the building principal to fully articulate the research question and the intended research process associated with gathering data around the research question. Over the course of three meetings, we were able to identify key personnel that were able to provide historical insight into the implementation of AIW in this secondary school setting. While the building principal was not responsible for the initial implementation of AIW, she continued the work as she began her work as building principal in 2021. Further, she was able to identify the personnel who were responsible for initial implementation, many of whom were still working in the school. After identifying those who were responsible for initial implementation of AIW, I employed the network sampling process resulting in a total of 16 interviews of staff members and three professional development team meetings.

The entry process within a PAR study included complexities resulting from the involvement of the researcher in the organization. In this case, I functioned as an insider in collaboration with other insiders (Herr & Anderson, 2015). As an insider with a vested interest in the success of the work to implement the AIW framework in the chosen secondary school, it was critical that I identified myself as such. Additionally, the entry process in the PAR study required a clear definition of roles of those participating in the research process including my own as

researcher and participant. Because I worked in collaboration with other insiders who served on the Inquiry Team that contributed to the study and collection of data that drove the implementation of the AIW framework, it was imperative to have roles clearly defined for all participants. The process began by clarifying the research question and process, the data being gathered, and the boundaries that existed between the Inquiry Team and me. Clear structures and processes that guided the research were vetted with the district's superintendent and agreed to utilizing a consent protocol (Appendix B). Further, a clear delineation of the processes used to guide the inquiry cycles inherent in the PAR process were shared with building leaders who served as members of the inquiry group (Appendix C). It is important to note, as the lead researcher, I also served and continue to serve in a formal evaluative role of those included on the team in our district setting. While this positionality had potential to alter the data in some ways, the results of the study proved to create an enhanced collaborative culture of inquiry in our district. The investment in a culture of inquiry will be further detailed in Chapter 6.

In both the case study sample and the PAR sample, identifying the relationships within each school was an important part of following the data. The initial identification of key stakeholders in both the case study and the PAR samples was a critical first step in the process that paid dividends as the study progressed allowing me to gain knowledge and acceptance and identify further research contacts as well as gain familiarity with behaviors, processes, and language of those I intended to research (Richards, 2015). Once I identified key stakeholders, in both samples the building principals, a process of network sampling (Merriam, 2009) was employed to identify individuals that contributed to data gathering that guided subsequent cycles of research.

The superintendents of both the case study and PAR schools were provided participation consent forms along with details regarding the way in which data would be collected. Each interview was prefaced with details of the research question and methods and a verbal consent to participate in the research interviews. Consent to interview each participant was acknowledged in writing in the PAR sample. In the case study sample, interview participants were provided a consent to interview protocol detailing the research process prior to the interview. Each provided verbal consent that was recorded using transcription software at the beginning of each interview.

Documents. The use of documents in qualitative research provides many advantages. Documents can “furnish descriptive information, verify emerging hypotheses, advance new categories and hypotheses, offer historical understanding, track change and development” (Merriam, 2009, p. 155). Importantly, when utilizing documents in research, the presence of the researcher doesn’t alter the data or what is being studied (Merriam, 2009). Though documents can sometimes produce data that is not congruent with interview or observation data, they are useful in inductively building categories and theoretical constructs that can guide subsequent research (Merriam, 2009).

In each of the two samples, I sought and obtained documents that would complement the interviews and observations. The documents provided insight into the intentions and processes used in implementation of the AIW framework. While some documents that were obtained prior to interviews assisted in informing more intensive scrutiny in subsequent interviews, most documents provided a greater depth of understanding of the details of implementation of the framework. These documents included plans for professional development, running records of team meetings, agendas used in professional development, resources provided by the AIW institute to guide implementation, work samples utilized by sites to guide AIW training, as well

as guiding research used by the sites to support staff development through implementation. To ensure that the documents supported the investigation into the research question, I vetted each with a protocol associated with the Framework of Essential Supports developed by Bryk et al. (2010). Though a substantial collection of documents was obtained through the course of the study, this protocol provided the necessary framework to ensure that the collected documents maintained a tight connection to the intention of the study and the associated research questions. Additionally, when engaging in document analysis, the issue of authenticity is one of critical importance. Once the documents have been identified for use in the study, “the author, the place, and the date of the writing all need to be established and verified” (McCullough, 2004, p. 42). In addition to the Framework of Essential Supports protocol, I utilized a protocol designed to fully explore the conditions under which these documents were created. This protocol included the following questions:

- What is the history of the document’s production and use?
- How is its use allocated?
- Is its selection biased?
- How might it be distorted or falsified?
- How did it come into my hands?
- Is the document complete, as originally constructed?
- Has it been tampered with or edited?
- What was the author trying to accomplish?
- What was or is the maker’s bias? (Clark, 1967; Guba & Lincoln, 1981; Merriam, 2009)

Appendix D provides the protocol for the review of documents. In all, 38 documents were utilized to complement the data gathered through the interview process.

Though the documents were used to complement the data gathered in the interview process, documents gathered for use in the PAR sample contributed more deeply to the study. These documents were used to begin to ask what is already known about the question (Herr & Anderson, 2015). They were used to uniquely inform further inquiry and guide the emergent research inherent to the PAR study. The document analysis helped to “frame the inquiry and provide a broad outline within which the action research takes place” (Herr & Anderson, 2015, p. 99). Documents generated from the site of the PAR study helped to formulate next steps in inquiry cycles which included the plan, act, observe, and reflect cycle.

Interviews. In a study such as this, interviewing is “necessary when we cannot observe behavior, feelings, or how people interpret the world around them” (Merriam, 2009, p. 88). To best understand the conditions and practices that existed in schools supporting implementation of the AIW framework, I interviewed those who have led the implementation as well as those who took part in the shifts occurring in classroom spaces. As previously indicated, in the case study sample, I began by interviewing the building principal who was responsible for continuing implementation of the AIW framework in the Beamon Community Secondary School. The building principal was referred to me by the leader of the AIW Institute who worked in conjunction with the State’s educational agency to oversee implementation of the AIW framework across the state. Though the building principal was not in her position at the time of the initial implementation, she was able to refer me to those that were. The former Curriculum Director currently serves as the Elementary School Principal positioning him close to this work even in his current role. In addition to my interview with him, I was able to interview the former secondary school principal along with the school’s instructional coach and six members of the initial pilot implementation team. In addition to the six pilot team members I interviewed six

current staff members who joined the secondary school team after the initial implementation. Included in this group were three core content area teachers, a special education teacher, and a talented and gifted teacher. While all arrived at Beamon Community Secondary School after implementation, one was a first-year teacher who was able to provide unique insights into her experiences as a staff member who was recently onboarded into the AIW efforts. Each interview provided a depth of understanding into the shifts they have observed in the instructional core as well as the ongoing efforts to evolve implementation in their school. In all, I conducted 16 interviews in the case study sample.

To identify these interviewees for the case study sample, I employed a process of network sampling. This process began by interviewing “a few key participants who easily met the criteria [that have been] established for participation in the study” (Merriam, 2009, p. 79). In this case, I initiated the process by interviewing the current building principal who directed me to the school’s Instructional Coach at the time of implementation along with the Curriculum Director who led the overall implementation effort. This approach allowed me to identify both formal and informal leaders in the implementation and ongoing efforts. These networks represented the relational ties within the organization and provided significant insights into the conditions that existed at the time of implementation that led to success in driving the AIW framework at the school level. The identified networks provided necessary information about those individuals who recognized shifts in the instructional core (Spillane & Coldren, 2011). The network sampling approach provided assurances that the subjects of the interviews were key figures in implementation and execution of AIW work in the case study.

Similarly, the work to identify key drivers of the AIW implementation efforts in the PAR sample started with the school’s building principal. My involvement brought me closer to

implementation and thus, presented a unique opportunity to identify for myself those that supported the implementation efforts there. The building principal guided me to the Inquiry Team who led implementation efforts and continued to work to sustain successful implementation. The Inquiry Team was composed of seven members including the building principal. This team included four core-content area teachers, a literacy coach, an instructional technology coach, and a special education teacher. The work of the Inquiry Team will be covered in more detail later. It is important to note that through network sampling, this team guided me to additional staff members with whom I conducted interviews. These included two additional staff members who experienced implementation efforts in their classrooms.

Because of the iterative nature of this study, I used a semi-structured interview format. This approach included a set of predetermined questions that served to guide the conversation. These questions (see Appendix E) were intended to explore experiences and behaviors, opinions and values, feelings, knowledge, sensory, and background/demographic questions (Patton, 2002). The questions that serve as the foundation of the interviews were flexibly worded and were both structured and unstructured allowing me to be responsive to the emerging worldview of the interviewee and consider new ideas being introduced throughout the interview (Merriam, 2009). As the interviews were semi-structured and conversational in nature, there was no clear conclusion and required me to re-visit interview subjects as new information emerged (Schatzman & Strauss, 1973). In both the case study and PAR samples, several subjects were interviewed on multiple occasions as I continued to encounter new information about implementation efforts. These included interviews with building principals, Pilot Team members, Inquiry Team members, and several classroom teachers.

The plan, act, observe, and reflect cycle inherent to the PAR study led to a more unstructured approach to interviewing. The involvement of the Inquiry Team created scenarios that were unstructured and episodic. These interviews often had no predetermined set of questions and were exploratory (Merriam, 2009) as the goal of the unstructured interview was to “learn enough about a situation to formulate questions for subsequent interviews” (Merriam, 2009, p. 91). Each however was recorded and transcribed so that the content was able to be analyzed later (Appendix E). Importantly I utilized a data journal to record these unstructured and episodic interactions. The details of the data journal will be covered in more depth later. Schatzman and Strauss (1973) refer to this approach as situational conversation and is largely more incidental and requires on-the-spot questioning to develop the research process.

The PAR study with a comparative case study provided a unique opportunity to explore AIW in two separate settings through a positioned subject approach. AIW served as a specific program positioned in a particular setting, the school (Conrad, Haworth, & Millar, 2001). The positioned subjects in both cases allowed for the subjects to “actively interpret and make sense of their everyday worlds” and “provided for a strategy of research and analysis” (Conrad, Haworth, & Millar, 2001, p. 28-41). It was this approach that allowed for the iterative design of this study to work effectively to highlight conditions that exist in the successful implementation of an instructional framework designed to create powerful learning experiences for students across two unique contexts.

In both the case study and PAR components, it was often advantageous to conduct interviews in small groups. Identifying teams that worked together or are currently working together to implement AIW proved to provide a richer data set. Understanding the interactions of implementation teams can help to better understand the conditions and practices they collectively

identified as supporting the implementation of the framework. In the case of the PAR component of the study, the Inquiry Team provided data collectively around the work in which they were engaged in through the inquiry cycles process. The groups provide opportunities for participants to hear each other's responses and extend the conversation or thinking. Though the group need not agree, in some cases, the group is able to provide high-quality data in a social context where they can consider not only their own views but those of others as well (Patton, 2002).

In specific cases, small group interviews were conducted and were successful in allowing interviewees to build upon the responses of one another. Specifically, the Inquiry Team in the PAR study was able to highlight the successes they experienced as a team as they extended the learning for one another in these settings. In the case study sample, small groups of initial pilot team members were able to support each other in recall of critical events that supported successful implementation.

Each interview was recorded with consent of those being interviewed. Recording the interviews allowed for a greater degree of accuracy but also allowed for reflection on the part of the researcher, thereby improving each subsequent interview (Merriam, 2009). The use of a field journal in each interview provided a measure of clarity from the interviews, ensuring that I was able to highlight significant data pieces or themes that emerged. Further, these detailed notes were successful in highlighting the journey and were used to validate my analysis as I drew conclusions from the study (Richards, 2015). Upon completion of each interview or series of interviews, I devoted time to memoing. Memoing provided me the opportunity to reflect on the interviews thereby enhancing recall of the highlights of each interview, later informing the process of coding to arrive at a set of conclusions. Notably, in the PAR sample, reflection through memoing allowed me to document shifts in implementation efforts along the way

ultimately leading to subsequent cycles of inquiry. Additionally, through the memoing process, I was able to identify larger themes that continued to emerge in interviews, observations, and document analysis. This contributed to the process of coding the data later in the study.

Observation. To complement the interview and PAR inquiry process, a series of observations were performed. Using observations, I was able to more easily assure that interview data was valid as “observations are also conducted to triangulate emerging findings; that is, they are used in conjunction with interviewing and document analysis to substantiate the findings” (Merriam, 2009, p. 119). Additionally, my observations “[made] it possible to record behavior as it [was] happening” (Merriam, 2009, p. 119). I was able to engage in a variety of observations in both the case study and PAR samples. While interviewing provided insight into the sentiments of program participants as well as a means to retrospectively comment on program implementation and corresponding conditions, my observations provided unique insight into implementation efforts informed by interviews. Observation provided me the opportunity to interpret practices and conditions that supported AIW implementation absent the filter of participants in the process. As this study was designed as a research-practitioner partnership the first-hand perspective of AIW components done in real time provided valuable data. In a few cases, I was able to conduct observations prior to conducting interviews allowing me to understand the context, incidents, and behaviors that I was able to incorporate into later interviews (Merriam, 2009). For example, observing an AIW scoring session, in which participants provided a critical review of an instructional approach, allowed me to engage in a deeper inquiry about implementation decisions that were made along the way.

In all, I conducted seven observations. In the case study sample, I was able to observe a professional development session and a new staff member scoring session. In the PAR sample, I

observed three professional development sessions, three scoring meetings and two leadership team meetings. While it was my intention to observe classroom settings in the case study sample, the state of implementation efforts prohibited me from doing so. Being able to observe scoring meetings and professional development opportunities provided a degree of validity as I analyzed my results. Observing these opportunities in real time presented the opportunities to witness details of implementation that emerged through the course of my interviews. Importantly, through observation, I was able to witness implementation efforts in a mature school providing a truly comparative approach to an emerging AIW school in the case of the PAR study.

While it was initially my intention to conduct the investigation into the case study sample prior to initiating the research in the PAR school, difficulty in securing a case study sample prevented me from taking this approach. In spite of this missed opportunity, working through implementation in the PAR sample prior to gathering data from the case study sample, I was able to confirm the findings of the PAR sample against a mature AIW school that successfully implemented the framework providing greater clarity to overall findings of this study. Moreover, I gathered data under the assumption that I was simply an outside observer watching and gathering data from a distance (Creswell, 2013). Though I functioned as a non-participant observer, I was able to apply my expertise gleaned through my work in the PAR sample as I observed the case study setting. This provided me with a unique lens through which I viewed these opportunities to observe, providing greater depth to my overall data set.

It is important to note that observation in the PAR sample required a different approach than a more traditional case study model. My observations were more situational and incidental. In the PAR study, I performed both as a passenger as well as part of the crew of a fast-moving train as I captured the process as well as narrated the ultimate destination (Herr & Anderson,

2015). In this case, I was asked to make meaning of observations and then take action to test the questions being explored (Herr & Anderson, 2015). Because of the incidental nature of these observations, the use of the data journal to record my incidental observations was of critical importance. Herr and Anderson (2015) indicate that “action researchers tend to draw most heavily on this ongoing memoing or journaling due to the action orientation and fast paced nature of action research” (p. 91). Ongoing documentation in the data journal was critical in logging the ongoing thinking, decisions, and actions as the lead researcher as well as my thoughts on the work of the inquiry group. Careful reflections that served to document my observations in my role as researcher and participant was a necessary part to ensuring I was capturing reliable data in real time as a part of the PAR component of the study (Herr & Anderson, 2015). Protocols for the case study as well as the PAR observations are included in Appendix F.

Data Journal. Central to the PAR approach to research was an ongoing data journal. As a participant in the study that I was conducting, it was important to study my own actions, decisions, and responses (Tenni, Smyth, & Boucher, 2003). This complexity in positionality within the study demanded the use of a data journal to document decisions, record thoughts, feelings, and impressions in addition to reflections on the increased understanding that came with the process of PAR (Herr & Anderson, 2015). Additionally, by documenting the decisions that were inherent to the PAR process, I was able to better understand the conditions and practices that I was responsible for creating and their impact on others who participated in the implementation of the AIW framework. Further, as PAR involves advocacy, fully documenting not only my advocacy for instructional framework implementation that was designed to lead to more equitable outcomes, but the advocacy of the team was critical to creating a rich data set.

The data journal was structured in a way that utilized the plan, act, observe, and reflect approach (Appendix G). Each meeting with the Inquiry Team was documented using this approach in the data journal to best inform subsequent research cycles. The data journal was used as a tool for my own reflection in order to develop the narrative associated with the implementation of AIW. My own reflections on the meetings and other observations were recorded in the data journal making sure to document significant decisions I made as a practitioner that established practices and created conditions for implementation of AIW. The information contained in the data journal represented two different types of memoing. The data journal included memos about method as well as memos about emerging interpretations, themes, and conclusions. The portion of the data journal that includes memos about methods documented insights into the way(s) the data was collected and the methods used to develop the study. The portion of the data journal that includes memos about emerging ideas was used to document themes or interesting ideas in the data as well as next steps in the process based on the data that was collected (Richards, 2015).

Data Analysis

The complexities of the PAR study with a comparative case study approach presented unique challenges to synthesizing data for analysis. As such, the approach to data analysis was largely dependent on whether the data was gathered from the case study sample or the PAR sample. Coupled with the fact that “qualitative data are exceedingly complex, and not readily convertible into standard measurable units of objects seen and heard; they vary in level of abstraction, in frequency of occurrence, in relevance to central questions in the research” (Schatzman & Strauss, 1973, p. 108). While the process of data analysis in a qualitative research study is recursive and dynamic (Merriam, 2009), the work of Bryk et al. (2010) served as the

lens through which I developed themes and categories throughout the data collection process.

This lens included:

- School leadership to include the degree to which leaders are inclusive, are instructional leaders, and contribute to program coherence.
- Professional capacity of teachers to include their orientation toward innovation and their commitment to professional growth.
- A student-centered learning climate to include minimal disruptions to learning and a strong orientation toward achievement.
- A strong instructional guidance system to include the teaching of basic skills as well as a strong emphasis on application of learning.

When analyzing the data gathered in the case study sample, it was important to embrace an emergent design. It is often the case that a researcher in a case study is both collecting and analyzing data simultaneously and that was the case throughout the course of this study. In this study, the process of qualitative data collection began with great ambiguity, the iterative nature of the process provided for gradual clarity as themes emerged. The analysis “is a complex process that involves moving back and forth between concrete bits of data and abstract concepts, between inductive reasoning and deductive reasoning, between description and interpretation” (Merriam, 2009, p. 176). Reaching conclusions about the data was often the result of information that cut across both samples and in a variety of contexts where the data was being collected. To reach some conclusions, it was important to identify patterns in the data. To do so, it was important to follow these steps:

1. Seek and constantly check out patterns.

2. Maximize the patterns found, but combine this with a plan for warding against the power of each pattern.
3. Check your pattern not merely for descriptive relevance but also for theoretical focus.
4. Specify the location of the pattern.

Generally, the process of coding involves moving from reading, reviewing, and memoing to describing, classifying, interpreting, and reducing the data with the goal being to learn from the data (Creswell, 2013; Merriam, 2009; Richards, 2015). When coding the data, I created categories of data that cut across the varying contexts of both the case study and the PAR study. I began with a process of open or descriptive coding establishing categories for topic coding. The process of topic coding involved “putting the data where they belong” (Creswell, 2013). Finally, I engaged in analytical coding as I was able to reflect on the meaning of the data collected and express new ideas about the data that I gathered from the sample (Richards, 2015). Throughout this process, I progressed through a series of steps beginning with “that’s interesting” to “why it is interesting” to “why am I interested in that?” (Richards, 2015, p. 113). The process of coding the data became the qualitative research process that led to the development of answers to the identified research question.

The goal of this study was to create linkages between the data gathered from the case study sample to the work that developed in the PAR sample. Though Schatzman and Strauss (1973) used the term linkages to refer to linking themes that emerge through the process of qualitative research, I use this term broadly to link the data gathered from one segment of the study, the PAR study, to the actions generated in another, the case study. Schatzman and Strauss (1973) further define key linkages as a “metaphor, model, general scheme, overriding pattern or

‘story line’ ...to refine further, or to link up with other classes” (p. 111). The goal of the linkage between two samples aspired to create theoretical classes of data. These data are pieces that are “discovered by the researcher as observer and analyst that are his (sic) own constructs, whether their nomenclature is borrowed from other sources or is invented” (Schatzman & Strauss, 1973, p. 112).

The linkages between data discussed helped to provide context to the inquiry cycles inherent to the PAR design. The inquiry cycles, or PAR cycles, were characterized by two qualities:

1. An iterative process where one cycle of inquiry builds on the previous one.
2. A recursive process whereby knowledge contributions provide timeline opportunities to reflect on where participants started, taking stock of what they have learned and the knowledge and understanding they have produced (Lawson et al., 2015).

These inquiry cycles in the PAR sample followed a process of plan, act, observe, and reflect and occurred in phases, not steps (Lawson et al., 2015). As the study progressed, the phases were less scripted sequences and became more non-linear. Each phase embraced a recognition that there was “an endemic, desirable ‘back and forth’ when PAR is designed to address vexing problems” (Lawson et al., 2015, p. 13). The analysis that occurred within these cycles and phases was often non-linear throughout the progression of the study. It was not often the case that the Inquiry Team nor I was able to stop the study in order to analyze the process before moving to the next cycle or decision. The Inquiry Team met quarterly beginning in September of the 2021-22 school year and continues to meet at the time of the publishing of this study. The Inquiry Team met to review information gathered from the inquiry cycles. These meetings utilized a defined protocol

for data analysis that included a review of the plan phase of the cycle being studied, a review of the actions and observations stemming from them, and reflection on our work as an Inquiry Team in developing the next steps (Appendix H). The Inquiry Team meetings began with a clear commitment to this identified process. However, as the team became more engrossed in the work, a more flexible design emerged whereby we reviewed data in order to inform next steps in the study's design. Regardless, there was a dual purpose to each of these meetings. On one hand, they served as a check on the status of implementation of AIW in the school setting, helping to inform next action steps. On the other hand, they served as data analysis for the study hoping to answer the defined research questions. While it was the intention to review the findings from the case study sample in order to infuse the data into the learning of the PAR team, the delay in identifying the case study proved difficult to follow this process. However, initial meetings with the AIW Institute representative provided context to the work we were conducting in the PAR sample. The data gathered from the AIW Institute assisted the team in developing future action steps to be included in subsequent inquiry cycles. This process helped to inform next steps in the emergent PAR study while providing a scenario in which the process was educative for all and stimulated future action (Herr & Anderson, 2015). The Inquiry Team was involved in reviewing findings included in the data journal and assisted in developing emerging themes from the inquiry cycles. By involving the Inquiry Team in the process of coding the emerging themes, they found opportunities to situate themselves more critically in the discourse (Herr & Anderson, 2015) related to practices and conditions that served to promote or limit the successful implementation of instructional frameworks. In this process, the Inquiry Team aspired to "strive to meet needs and solve problems and monitor whether they were achieving desired outcomes"

(Lawson et al., 2015, p. 14). To provide a structure to engage in this process, a protocol based on the following four priorities was utilized:

1. Determine the defining features of the problem being addressed.
2. Determine the most efficient and effective models of problem-solving strategies.
3. Determine the potential, replicable operational pathways to desirable outcomes.
4. Determine special conditions and unique circumstances occurring in the local context which account for the recognized outcomes (Lawson, et al., 2015).

After each cycle of inquiry, a new action step was generated. This process of inquiry resulted in five distinct cycles of inquiry. With each action step, an interview of the team was conducted to monitor the presence of conditions and practices that promoted the successful implementation of the AIW framework. The data journal was used to document these cycles allowing the researcher to further identify consistent themes between the case study sample and the PAR sample. The action steps derived from the five cycles of inquiry are summarized below:

- Inquiry Cycle One: The Inquiry Team assessed the early stages of implementation that included only select AIW teams as participants. Upon a review of data, the Inquiry Team determined that an accelerated implementation to include the full Rock Valley Middle School staff was warranted to extend powerful learning experiences to more students.
- Inquiry Cycle Two: The Inquiry Team utilized data to determine that an investment in anchor teams to support wide scale implementation was warranted, thus ensuring a tighter tethering to the AIW framework.
- Inquiry Cycle Three: After a review of data from Inquiry Cycle Two, the Inquiry Team worked to invest in capacity building of the anchor teams. In order to elevate the work of the anchor teams, the Inquiry Team worked to establish strategies within the scope of the

framework that would further support implementation of AIW principles to the whole staff. As a result, the Inquiry Team adjusted the deployment of the framework to support teams in their specific contexts.

- Inquiry Cycle Four: Rock Valley Middle School was preparing to transition to a new configuration in which it would incorporate an entire grade-level into its new middle school. Based on the study of implementation to this point, the Inquiry Team worked to infuse principles of AIW into a new grade level that had not experienced AIW. This would ensure greater exposure of powerful learning experiences to a greater number of students.
- Inquiry Cycle Five: The Inquiry Team determined that much of the work leading to inquiry cycle five was devoted to the instructional process. To ensure powerful experiences were impacting the instructional core, the Inquiry Team began to develop outcome measures to determine the extent to which powerful learning experiences were impacting student outcomes and not simply the instructional process.

The data that was derived from both the PAR sample and the case study sample were gathered through distinctly different methods. Throughout each process, I developed a list of emerging themes that resulted from document analysis, observations, interviews, and inquiry cycles. I was able to develop this list through the practice of memoing as was previously referenced. After each interview or observation, I engaged in a process of memoing which included the themes from each encounter. Once the data set was complete, I reviewed the memos. Upon review of the memos, I engaged in a process of coding the data. Through this process, I was able to identify 21 different themes. While engaging in the process of coding, I sorted, categorized, and collapsed the 21 themes into four distinct categories that served as the

categorical themes that united the two cases. These categories and themes will be utilized to shape Chapters 4 and 5 which provide detail on the themes discovered through the data gathering process. The four categories that emerged, along with the supporting themes are:

- Dedication of resources
 - Professional development resources devoted to the framework (time)
 - Human resources devoted to the framework
 - Lack of competing initiatives
 - PD structures that are job embedded
- Flexibility in framework implementation
 - Adaptability of the framework to meet the context of the school
 - Adaptability of the framework to meet staff in all content areas
- Established culture of feedback
 - Strong data systems
 - Strong curricular frameworks
 - Developing systems that create space for vulnerability among staff
- Instructional leadership
 - Clarity of Instructional Vision
 - Principal leadership
 - Teacher leadership
 - District leadership
 - Common language around powerful learning experiences
 - Common understanding around powerful learning experiences
 - Accountability for classroom practices

- Peer to peer accountability

Trustworthiness and Validity

In a study of this nature, it was important to develop maximum confidence that the research findings matched reality. These measures are referred to as internal validity (Merriam, 2009). In order to assure the validity of this study, four methods were employed: triangulation, peer review/critical friend, member checking, and researcher reflexivity. Each assures that the findings gleaned in the study match what is occurring within the context and spaces being studied.

Triangulation. As this study utilizes a variety of resources to build its findings the measure of triangulation is perhaps most appropriate. As stated in Merriam (2009), “triangulation using multiple sources of data collected through observations at different times or in different places, or interview data collected from people with different perspectives or from follow-up interviews with the same people” (p. 216). Given that this study included a PAR study with a comparative case study, triangulation was embedded within the framework as observations were conducted in different sites, in a variety of classrooms, at various times. Though the PAR study was centered on a middle school implementing the framework, the district in which the PAR study was conducted was implementing the AIW framework in both the middle school and the high school. This arrangement allowed for triangulation of data as I was able to observe implementation across several contexts even within the PAR study itself. Further, the breadth of interview subjects across two different sites provided differing perspectives on AIW implementation and associated conditions supporting its implementation, thus lending validity to the data. Being able to explore documents in both a mature setting as well as an emerging setting provided the comparative perspective that contributed to triangulation. Further, the inductive

nature of the study provided a structure for follow-up interviews thus contributing to effective triangulation. After meeting with the Inquiry Team, I conducted several follow-up interviews to test the validity of the data that I gathered through the inquiry process. This created a scenario in which triangulation occurred across the varying methods and sources of data used in this study.

As it relates to the PAR sample of the study, two distinct approaches specific to this type of research are embedded within the process of triangulation. Outcome validity is a test that reveals the extent to which actions occur that lead to a resolution of the problem on which the study is focused (Herr & Anderson, 2015). After each inquiry cycle, the Inquiry Team developed a new set of questions leading to action steps for subsequent inquiry cycle(s). As indicated earlier, the inquiry process included the following: After the initial inquiry cycle, the Inquiry Team created a step to accelerate the scale of implementation of the AIW framework. The second inquiry cycle created a step to establish anchor teams to support the acceleration of the scale of implementation. The third inquiry cycle presented an opportunity to create action around expanding implementation to include yet another grade level of students. Finally, the fourth inquiry cycle created a structure to measure outcomes in classrooms implementing the AIW framework. Each step in the inquiry process measured a variety of data points when developing new action steps, thus triangulating the data.

In addition to outcome validity, I created an additional step to check for process validity. Through this process, I checked to ensure that problems encountered in the study were framed in such a way that permitted ongoing learning (Herr & Anderson, 2015). Using feedback tools created by the Inquiry Team and building leaders, in addition to scoring rubrics embedded in the AIW process, the Inquiry Team was able to determine the degree to which ongoing learning was

occurring both within the Inquiry Team, and in classroom spaces where implementation was occurring.

Peer Review/Critical Friend. Another method of ensuring validity is the use of peer review. This measure, according to Creswell (2013), “provides an external check of the research process.” Further, it “keeps the researcher honest; asks hard questions about methods, meanings, and interpretations” (p. 251). Dr. Bruce King, one of the founders and developers of Authentic Intellectual Work, provided an authoritative, questioning voice through the peer review process. Engaging Dr. King as a peer reviewer helped to ensure the validity of the results of data collection.

While Dr. King served as an authoritative voice on the study in general, the infusion of a critical friend in a PAR study was necessary and extended beyond the role of a traditional peer reviewer. King also served as a critical friend throughout the study. My involvement as researcher and practitioner created many layers to my role in the study and required a higher threshold for validity checking. In PAR research, a critical friend is an expert

“willing to debrief with the researcher, collaboratively making meaning, as well as pose questions regarding how it is that a researcher ‘knows’ what it is he or she knows.

Critical friends often push researchers to another level of understanding because they ask researchers to make explicit what they may understand on a more tacit level” (Herr & Anderson, 2015, p. 98-99).

Not only was I able to engage Dr. King as a critical friend, he also served our team in a similar capacity throughout the process. In all, we met five times throughout the course of the study to ensure validity of the results.

Member Checking. Engaging in member checking ensures internal validity in the case study sample. Throughout the development of the study, I continued to connect with implementation leaders at Beamon Community Secondary School. These leaders included the building principal, the instructional coaches, and a Social Studies teacher who served on the initial Pilot Team. This approach allowed me to take my preliminary analysis back to some of my participants to make sure my interpretation “rings true” (Merriam, 2009). In addition to checking for accuracy in the data, this process ensured that my emerging findings that included my own interpretations were not creating bias within the data. This allowed this small group to affirm my themes and analyses as opposed to unrefined notes (Creswell, 2013).

The PAR component of this study included member checking as a natural component ensuring validity of the findings. Member checking involves “taking data, analyses, interpretations, and conclusions back to the participants so that they can judge the accuracy and credibility of the account” (Creswell, 2013, p. 252). Though participation in assessing the accuracy of the data can be cumbersome for participants, it was important to provide continuing feedback to participants, particularly those members of the Inquiry Team to ensure validity of the data that was generated through the inquiry cycles. This feedback not only supported validity measures, but it also provided a greater depth of understanding as iterative cycles of inquiry emerged while we grew the commitment to AIW practices through implementation. The Inquiry Team provided an obvious structure to continually bring research findings back to those who were tasked with taking action on the research findings. As a result, member checking was “easily folded into the ongoing reflective component of action research” (Herr & Anderson, 2015, p. 106). Importantly, I engaged three leaders supporting AIW implementation from the case study to member check with me on emerging findings. These three members were the

building principal, the school's instructional coach, and a former principal of the school who was responsible for initial implementation of the AIW framework. To ensure proper member checking across both study contexts, I engaged the building principal in the PAR sample and two members of the Pilot Team in the case study sample in member checking. This ensured validity of the data in both contexts.

Member checking in a PAR study also involved two specific checks for validity unique to this type of research. Democratic validity refers to the extent to which research is done in collaboration with all parties to ensure that all who have a stake in the research are taken into account (Herr & Anderson, 2015). The Inquiry Team process, along with member checks through the course of the study ensured that the collaboration of parties required within democratic validity was met and thus valid.

In addition to democratic validity, member checking also accounted for a check for catalytic validity within the PAR sample. Catalytic validity refers to the “degree to which the research process reorients, focuses, and energizes participants toward knowing reality in order to transform it” (Lather, 1986, p. 272). Additionally, it should “deepen their understanding of the social reality under study” (Herr & Anderson, 2015, p. 69). The Inquiry Team served as the subject for these member checks. Through the course of the study, the team reflected on the emerging implementation of AIW, all the while, monitoring data to ensure each cycle of inquiry was having its desired impact on staff and students. In particular, the involvement of special education staff members in this member checking assisted in ensuring that the check for catalytic validity addressed the social reality under which implementation was occurring. Notably, the team continued to revisit the way in which deployment of AIW principles aspired to achieve equitable outcomes in classrooms. This type of reflection ensured that the processes associated

with PAR were working in such a way that learning was iterative while aspiring to equitable outcomes for students.

Researcher's Position or Reflexivity. “All social research has bias, because researchers always take in assumptions and experience” (Creswell, 2013, p. 29). Both the positioned subject and the PAR approaches to this study presented opportunities for bias to influence the data collection, analysis, and results. In the PAR component of the study, as previously stated, I served as both the researcher and the researched. Additionally, the Inquiry Team that participated in the study consisted of practitioners who will work to implement the AIW instructional framework in schools. At each stage of the research, I was mindful of my role as both researcher and practitioner. To ensure that I remained tethered to the integrity of the research process, I used my data journal to reflect on this duality through my observations, interviews, document analysis, and inquiry cycles. Importantly, after each meeting of the Inquiry Team, I met with the building principal who served as an internal check on my dual role as researcher and practitioner. Given my experience as a practitioner, I was able to enrich my experience in that role, while engaging fully as a researcher to affect change while remaining true to the research process.

My role as former teacher, building administrator, and district-level administrator in both the PAR sample and the case study sample provided me with a unique lens through which to view implementation. Serving in these roles over the course of over twenty years, I found that I was equipped with lived and learned experiences that contributed to not only the collection of the data, but its use to draw conclusions. My vast experience in classrooms provided me a deeper opportunity for scrutiny of the framework's implementation and the impact on staff and students. While my experience deepened my investigation through the process, the potential for bias in the

data existed. Through the processes to ensure validity of the data, in particular member checking and critical friend, any bias was able to be revealed and left out of the data set.

CHAPTER 4: Rock Valley Middle School

Introduction to Rock Valley Middle School

Rock Valley School Middle School served as the sample for the Participatory Action Research (PAR) component of this study. Working with a leadership team at this middle school provided the proper context for PAR to occur. The iterative approach inherent in PAR provided data that allowed me to answer the question: In schools that have adopted an instructional framework to improve the instructional core and promote powerful learning experiences for students, what are the conditions and practices that contribute to successful implementation of that framework? Because this study is centered around Participatory Action Research, I am able to leverage my experience as a practitioner and researcher to identify elements of successful implementation in schools. What follows is a detailed explanation of the themes I discovered to better identify the success of implementation.

As I detailed in Chapter 2 Rock Valley Middle School is a middle school situated in a suburban community in the Midwestern United States. The school district includes the City of Rock Valley and four surrounding townships. The district is located in an area of the United States that is characterized by mid-size, largely suburban and rural communities with a strong industrial economic base. According to 2020 United States Census data, the City of Rock Valley itself has a population of roughly 27,000 people. About 11% of Rock Valley residents experience poverty though the schools of the Rock Valley School District report about 35% of students who qualify as low socioeconomic status. The racial demographics of the community are as follows: 88% White, 2% Black, 2% Asian, and 6% from two or more races. Other racial groups represent less than a percentage each.

Because of the length of the PAR study, the configuration of the schools in the Rock Valley School District shifted as the study progressed. At the outset of the study, the district operated nine elementary schools serving students in Kindergarten through fifth grade, one of which is a Charter Elementary School. The district also operated a middle school serving all of the district's sixth grade students and another middle school serving students in seventh and eighth grades. The district operated a single, comprehensive high school serving students in ninth through 12th grade. The District also operated a four year old Kindergarten site along with a small alternative high school. The total enrollment of the district is roughly 7,000 students.

In 2023, the configuration of the schools changed as a result of a successful facilities referendum that funded the building of a new high school complex along with the development of a middle school serving the district's fifth through eighth grade students. This process also resulted in the closing of one of its elementary school buildings. At the time this study was completed, the district operated nine elementary schools, one of which was a Charter Elementary School. The district operated a single middle school serving students in fifth through eighth grades and a single comprehensive high school serving students in ninth through 12th grades. The district continued to operate a four-year-old Kindergarten site along with a small alternative high school.

The Rock Valley School District has a history of strong academic success. The State's Department of Education issues annual school report cards measuring school performance. The District has a graduation rate consistently above 90% and, according to the state report card metrics, student performance exceeds state averages in key performance areas. However, as it relates to Rock Valley Middle School and the schools that previously comprised the middle schools of the district, student performance was consistently average and typically fell below

most schools' performances in the district and was characterized by widening gaps between student demographic groups. As a result of lagging performance, Rock Valley Middle School provided a worthwhile sample to answer the question: In schools that have adopted an instructional framework to improve the instructional core and promote powerful learning experiences for students, what are the conditions and practices that contribute to successful implementation of that framework?

As discussed in Chapter 3, the process of collecting data in the PAR sample included document review, observation, and interviews. I reviewed documents that included professional development plans and supporting documents, meeting agendas, and materials used by participants in AIW activities throughout and after implementation. I reviewed each document using a specific protocol (see Appendix D) that was based on the Framework of Essential Supports developed by Bryk et al. (2010) throughout the work I completed in the case study. Additionally, I participated in observations of professional development activities as well as AIW scoring meeting(s). I conducted twelve informal interviews throughout the course of the study. The interviews included 10 content area and/or special education teachers, 7 building-level administrators, 1 district-level administrator, and a representative of the AIW Institute, Dr. M. Bruce King. Of primary importance through the course of this study was the work conducted with the Rock Valley Middle School principal as well as the Inquiry Team. In all, we conducted five, formal Inquiry Team meetings over the course of a year. This was an iterative process that included a review of feedback and development of subsequent action steps. Additionally, I conducted four formal interviews with the Rock Valley Middle School Principal. After collecting and reviewing the data from Rock Valley Middle School, four general themes emerged. Those themes are: (1) dedication of resources, (2) flexibility in framework implementation, (3)

established culture of feedback, and (4) instructional leadership. Each theme will be explored further in this chapter.

Dedication of Resources

When the Rock Valley School District engaged the AIW Institute to initiate conversations about implementation of the AIW framework in its secondary schools, more specifically, Rock Valley Middle School, it became immediately clear that the dedication of resources was a foundational element to the successful implementation of the framework. These resources involved not only financial resources that supported training of staff, but allocation of dedicated time to engaging in the practices dictated by the AIW framework. Additionally, the leadership of Rock Valley Middle School made it a priority to avoid engaging in creating competing initiatives that might inhibit the focused implementation of the AIW process. Importantly the AIW framework and associated professional development is predicated on a process of job-embedded professional development in which instructional staff members engage one another in critique of three facets of the instructional process, signifying a dedication of resources on the part of the administration. Recall that Chapter 2 outlined the details of the AIW framework. In general, the process includes teams of instructional staff assessing instructional tasks, student work, and an observation of the instructional process itself. In each stage of critique, AIW scoring rubrics are used to provide feedback on three critical elements of lesson design, deployment, and product. The three elements are: construction of knowledge, disciplined inquiry, and value beyond school. The meetings during which these elements are critiqued are generally referred to as scoring meetings. These three elements are the bedrock of powerful learning experiences for students in classrooms where learning occurs. Appendix I includes a sample of AIW scoring rubrics for each phase of the professional development process. The

example provided is one that would be applied for tasks, student work, and instruction in the English Language Arts content area. This process requires a commitment of resources narrowly focused to improve instruction in settings where student learning occurs. Specifically in the PAR sample, it was clear that Rock Valley Middle School committed resources to a process designed to create powerful learning experiences for students. In the section that follows, I will outline two specific categories that contributed to the theme of dedicated resources. Those two categories are (1) time and personnel, and (2) focused, job-embedded professional development.

Time and Personnel. One foundational component that proved to be significant in Rock Valley Middle School, was the dedication of time to allow staff members to fully engage in the framework. Bruce King, one of the founders of the AIW framework and consultant to Rock Valley Middle School indicated when meeting with the Rock Valley leadership team that an allotment of time for staff to be included on regular agendas was critical. King suggested that:

In the falling back on one of our long-standing guiding principles is that teams need to focus on AIW at a minimum of four hours in a month. And we have seen pretty incredible variation of implementation across many schools and that general rule of thumb [that of time allotted] has really turned out to be a strong guiding one in terms of predicting the likelihood of success. Just like any other great initiative, if teachers don't have enough time to work with it. Then it's just an afterthought. It doesn't get well integrated.

A member of the Rock Valley leadership team, while preparing for implementation, indicated “for AIW to be successful here, it needs to be a part of their day...for it to be successful, we need to rely less on PLD (professional learning days) and more on their planning time during the school day.” Indeed, as the process of implementation progressed, the administrative team at

Rock Valley Middle School continued to shift structures at the middle school to provide 90 minutes each week for teams to engage in the AIW professional development framework. This strategy allowed for AIW teams to meaningfully engage in the framework and its component parts. The Rock Valley Middle School Literacy Coach elaborated on the degree to which time allows for a stronger commitment to the framework and the strategies that result from work within the framework. The Rock Valley Literacy Coach, while discussing the importance of this time commitment with her Inquiry Team members said:

In our first year, our team had to read the rubrics every single time and score the work being done every single time. When you do this (AIW process) often enough, and you discuss it often enough, you get to this level of automaticity and that just takes time.

Importantly, at Rock Valley Middle School, the building leader devoted significant time for the clearly defined processes of AIW to take root in the professional development approaches employed there. As importantly, Principal Kara Cooper cleared the way for successful implementation by removing any non-AIW related professional development requirements for teams engaging in AIW adoption. A staff member who served as an early adopter of the AIW process indicated that a significant reason for its successful initial implementation was that “our AIW teams were excused from other professional development requirements and that gave us the time to commit to the intricate process of AIW professional development.”

The cycles of inquiry at Rock Valley Middle School revealed the importance of the dedication of time to the implementation of this framework. One Inquiry Team member indicated that

in order for the process to work, you have to meet regularly. This allows time for teams to be thorough in their process, but also allows for teams to plan for subsequent meetings.

This time gets you in the mindset of committing to the basic components of great instruction that are provided by AIW.

Early adopters of the framework in Rock Valley Middle School suggested that “our first year was just about time. We met for hours just on AIW.” While the allotment of time was a consistent attribute leading to successful implementation, the inquiry process at Rock Valley Middle School affirmed the sentiment that time allowed for purposeful implementation. Through the process of inquiry, one Inquiry Team member observed that “the allotment of time has led me to more purposeful collaboration.” Kara Cooper, principal of Rock Valley Middle School and a key member of the Inquiry Team suggested that holding time sacred for the AIW process. “If every time [a staff member leaves] a scoring meeting, [and feel] like that was productive [use of] my time [and] was worth it, just [their] perception about team meetings changes.”

Dedication of time allowed for teams in Rock Valley to best understand the impact of the framework. In addition, the investment of time fostered accountability for implementation of the framework. Rock Valley Middle School exhibited a level of accountability resulting from the time set aside for learning the AIW process and even fostered a new level of vulnerability amongst staff, a concept that will be explored later. Principal Cooper highlighted this finding indicating,

they're routinely doing this (AIW work) and so it comes with practice. They had to be really consistent in holding their meetings and not canceling them or something else coming up. So they really have held steadfast to having these weekly meetings, and that has expedited their vulnerability. They are now to the point where they are hungry for feedback.

This accountability fostered greater productivity, collaboration among staff, and vulnerability to examine more deeply, practices aimed at creating powerful learning experiences for students.

While the investment of time was a factor leading to successful implementation of the AIW framework in Rock Valley Middle School, the dedication of human resources in support of growing its impact proved to be equally important. Though the concept of teacher leadership will be covered in greater detail later, ensuring that the appropriate number of staff members were trained in AIW prior to full implementation proved to be critical to the success of the implementation efforts. In all, five administrators were trained in the AIW framework along with three pilot teams committed to leading the effort as additional staff members were added at Rock Valley Middle School. Table 1 details the human resources investment in implementation of AIW.

While the total number of staff committed to implementation is an important investment during implementation, the efforts of the building principal to identify key personnel to lead implementation is an important part of establishing the foundation of AIW for successful implementation. Dr. Samantha Lawrence of the AIW Institute gave voice to the importance of choosing the appropriate personnel in the implementation phase. Lawrence stated that during implementation, a building leader “needs to choose a strong staff who can stand up to the challenges of undoing the change that becomes of AIW” and that one of the key functions of the building principal is to “choose, with intent, strong pilot team members, people who are open minded, who are learners and who have the ability to move other staff members.” Principal Cooper affirmed this sentiment as she discussed the intentional nature around choosing her pilot teams. Cooper stated the following regarding her choice in personnel who serve on the Rock Valley Middle School leadership teams: “Their level of problem solving and collective

Table 1: *Personnel Trained in AIW During Implementation Phases*

Implementation Phase 1	Implementation Phase 2
<p>Personnel Trained</p> <ul style="list-style-type: none"> ● Building Principal ● Pilot Team #1 <ul style="list-style-type: none"> ○ Language Arts Teacher ○ Math Teacher ○ Science Teacher (2) ○ Social Studies Teacher ○ Music Teacher ○ Special Education Teacher ○ Instructional Technology Coach ○ Literacy Instructional Coach ● Pilot Team #2 <ul style="list-style-type: none"> ○ Language Arts Teacher ○ Math Teacher ○ Science Teacher ○ Social Studies Teacher ○ Special Education Teacher ● Pilot Team #3 <ul style="list-style-type: none"> ○ Language Arts Teacher (2) ○ Math Teacher ○ Science Teacher ○ Social Studies Teacher ○ Gifted and Talented Teacher ○ Special Education Teacher ○ Math Instructional Coach 	<p>Personnel Trained</p> <ul style="list-style-type: none"> ● Full Staff <ul style="list-style-type: none"> ○ Building Principals (4) ○ Language Arts Teacher (8) ○ Math Teacher (9) ○ Science Teacher (8) ○ Social Studies Teacher (8) ○ Music Teacher (2) ○ Art Teacher (2) ○ Special Education Teacher (14) ○ Literacy Instructional Coach ○ Math Instructional Coach ○ Health/Physical Education Teacher (8) ○ World Language Teacher (4) ○ Family and Consumer Education Teacher (2) ○ Technical Education Teacher (2) ○ Computer Science Teacher

efficacy is different. Their ability to make strong instructional decisions is different than other teams and we often use these teams as examples for other teams.” Further, Cooper’s decision to involve instructional coaches on her pilot teams allowed for strong implementation. The role of instructional coaches is to coach staff members across grade-level and disciplinary teams. Incorporating instructional coaches into the implementation process fostered an environment in which these coaches were able to disperse the strong examples of AIW work across a wide cross-section of instructional staff.

Focused, Job-embedded Professional Development. Recall that I previously discussed the research on coherence citing Fullan and Quinn (2016) who argued that to achieve change in schools, leaders should “develop explicit frameworks or models to guide the learning process” (p. 88). To be effective, these explicit frameworks should embrace a “small number of goals

directly linked to improved student learning” (p. 106). Based on this research, the Inquiry Team that drove implementation at Rock Valley Middle School decided to focus their professional development almost exclusively on the AIW framework. The Rock Valley School District incorporates eight, full-day professional development days into their annual school calendar. These eight days are often a blend of district-led initiatives and school-specific priorities. The experience of the Inquiry Team was that historically, the Rock Valley School District’s professional learning process was overwhelmed with competing initiatives. These include training on specific curricular frameworks in core content areas, assessment reform, student performance data analysis, social, emotional, and behavioral learning training, staff wellness training, and a variety of technical trainings. Staff often indicated a lack of clarity around their professional learning.

Principal Cooper and the Inquiry Team worked closely with the district’s Director of Curriculum, Instruction, and Assessment to provide clarity in professional development using only the AIW process as the subject for professional learning time. Of the eight days of training that were held throughout the 2022-23 school year in the Rock Valley School District, a minimum of four hours of AIW training were conducted during each without the introduction of competing initiatives. Importantly, Cooper and her leadership teams worked over the previous school years to ensure strong curricular guidance systems. Cooper stated that the intentional work of AIW implementation “actually elevates our other curricular frameworks and provides specific processes for deploying the curriculum that we’ve been teaching for years.” The staff at Rock Valley Middle School supported this assertion. A veteran staff member of Rock Valley Middle School shared that “even though I am a year or two from retirement, I have appreciated the clarity that AIW has brought to my classroom practices. I’m not guessing which recent

initiative I should be incorporating into my work. We only spend our time on AIW and I am very clear about what I need to do in my classroom to create a better learning environment for my students.”

The work to incorporate the AIW professional development model was multifaceted at Rock Valley Middle School. The staff at Rock Valley Middle School engaged in four, stand-alone professional development opportunities in the year of its implementation. Each of these engagements lasted approximately three hours. Upon review of these engagements with the Inquiry Team, we determined these opportunities were important in establishing common language and expectations within the framework. However, the data gathered through interviews and observations as well as through the perspective of the Inquiry Team, suggested that the professional development opportunities that were closest to the context where student learning occurs were most effective in the implementation efforts. For example, during a professional learning engagement in which Rock Valley Middle School anchor teams presented their work to teams undergoing initial implementation, a leader of the team shared the following:

It’s important to do the work to score the task with your team. However, one adjustment we made was to score a task with our AIW team, then we go watch that lesson happening in the actual classroom context. We physically sit in the classroom of our AIW team member and observe the lesson that we discussed with our AIW team. We have found this to be effective in making sure the work to incorporate AIW principles where student learning happens.

Principal Cooper elaborated further on the benefits of a job-embedded approach to professional development which is an important component of the AIW framework. She stated:

The nature of AIW creates a professional environment where people feel supported in the work they do in classrooms because they get great feedback about the work they are connected to in classrooms. This is different than traditional professional development where they attend training and several days later go back to their classroom without receiving the feedback on whether or not the training is actually working.

Flexibility in Framework Implementation

The data revealed that the strength of the AIW framework was its adaptability to meet the needs of local school contexts. In the case of Rock Valley Middle School, AIW teams adjusted the procedural components of the AIW professional development process to meet the needs of their immediate circumstance. However, through the cycles of inquiry and through information provided through interviews, I found that only after the foundational components became familiar and second-nature to the staff could they adapt the framework to meet their immediate needs. The sections that follow detail the findings related to this process. In this section, I will develop the theme of flexibility by further exploring the two categories that include, (1) establishing foundations to foster flexibility, and (2) framework adaptability along with an application of select inquiry cycles that supported the development of the theme.

Establishing Foundations to Foster Flexibility. The defined structure of the AIW process was documented in the previous section. In working with representatives with the AIW Institute in conjunction with the Inquiry Team, we quickly determined that the framework, while clearly defined, is most effective when molded to fit the context in which it is being implemented. During the initial stage of implementation however, pilot teams at Rock Valley Middle School were strictly committed to the parameters of the framework as identified by the AIW Institute. This emerged as an important contributing factor to finding flexibility in the

framework later in the implementation. AIW teams at Rock Valley Middle School used the criteria in Figure 2 to engage in AIW work. This process was developed in conjunction with the AIW Institute and represented a strict commitment to process as prescribed within the framework. One member of an AIW team who implemented the framework initially commented: “For a beginning group, you have to go through the process as dictated in order to understand how to eventually make the framework work for your team because eventually the ‘playing’ is where the good stuff happens.” The data revealed through

Figure 2: *AIW Scoring Meeting Protocol - Rock Valley Middle School*

AIW Meeting Format 45 - 60 min. Session/~4 Hours per Month
<ul style="list-style-type: none"> ● Facilitator reviews team norms. ● Presenter from the last meeting reflects on peer feedback. Did they make any additions, deletions, and/or revisions to their task? ● Facilitator provides scoring sheets to each team member and shares where content area rubrics for scoring meetings can be found in book or provide paper copies. <ul style="list-style-type: none"> ● Have a few paper copies on hand for any team member who forgot their book or team preference. ● Be familiar with “Rules of Thumb for Scoring Tasks”, refer to as needed ● Review Scoring Criteria from book (ex. Pg. 4 in scoring manual) ● Presenter presents their task. ● Scorers ask any clarifying questions. ● Scorers score one standard at a time and posts their score on board or Google doc. <ul style="list-style-type: none"> ● If you use this Google doc, it is helpful to do a split screen and have this projected during the meeting. ● Discuss standard scores and why they were chosen. <ul style="list-style-type: none"> ● Sharing feedback can be fluid and doesn’t need to be in any sort of order. Dialogue and feedback should be authentic. ● Keep in mind that your team does not necessarily need consensus. The purpose is to engage in collegial dialogue and to hear a variety of perspectives. ● Repeat for each standard. ● Provide time for the presenter to reflect on feedback. ● All scoring sheets given to the presenter. ● Identify facilitator and presenter for the next scoring meeting. ● If possible, set the next meeting date and time, otherwise the new facilitator will follow-up with the team.

the inquiry cycles and interviews, the importance of the foundational components on the way to providing much-needed flexibility. This approach was supported by Bruce King of the AIW Institute who guided the teams by creating space for teams to “score tasks. Score more tasks and then score even more tasks. The benefits to the framework can only be realized once you’ve practiced scoring each other’s work often.” One of those benefits being the ability to adjust the framework to impact the instructional core.

The AIW teams at Rock Valley Middle School devoted significant time to understanding the process of AIW professional development. Teams that experienced implementation spent nearly a full school year engaging in the process as dictated by the parameters of the AIW professional development process. For many of the teams, they spent nearly four months simply scoring teacher tasks to become accustomed to the rubrics. Recall, scoring of teacher tasks is the first step in the AIW process leading to the subsequent steps of scoring student work followed by the scoring of instruction, typically done by watching a video of the teacher in the classroom setting teaching a lesson that was evaluated through the AIW process. The initial implementation phase at Rock Valley engaged pilot teams in strict adherence to all three phases of the AIW process. In observing these meetings, I observed consistent procedures done with attention to the details of the framework. Those procedures were outlined above in Figure 2. One member of the Inquiry Team noted the importance of the structural components of the framework and its correlation to their successful implementation:

I think in my mind, it's because we have the same planning template that we use at each of our meetings. We've used this template throughout...And so we always use the same norms, we always do the whole agenda from beginning to end. So at this point, it's almost

like I feel like we're just on autopilot like we know what's coming up. We know what types of questions we asked each other. We know what the learning should look like at each meeting.

The template that the team used is provided in Figure 3.

Figure 3: Rock Valley Middle School AIW Team Planning Template

AIW Team Planning Template			
Team Members Present:	Norms:	Roles:	Agenda:
<input checked="" type="checkbox"/> Team Member 1	Come prepared and ready to help improve lessons/tasks	Presenter from prior meeting (reflection):	Facilitator reviews team norms <input type="checkbox"/>
<input checked="" type="checkbox"/> Team Member 2	Stay on task	Facilitator:	Presenter from the last meeting reflects on peer feedback. Did they make any additions, deletions, and/or revisions to their task? <input type="checkbox"/>
<input checked="" type="checkbox"/> Team Member 3	Challenge ideas, not people	Presenter:	Presenter presents their task <input type="checkbox"/>
<input checked="" type="checkbox"/> Team Member 4	Don't take constructive feedback personally	Presenter Links Here	Scorer asks any clarifying questions <input type="checkbox"/>
<input checked="" type="checkbox"/> Team Member 5	Closure (and schedule next meeting)	Facilitator: Link group scoring sheet here	Scorers score one standard at a time and posts their score on Google Doc. Digital Scoring Book <input type="checkbox"/>
<input checked="" type="checkbox"/> Team Member 6			Discuss standard scores and why they were chosen <input type="checkbox"/>
<input checked="" type="checkbox"/> Team Member 7			Repeat for each standard <input type="checkbox"/>
			Provide time for the presenter to reflect on feedback <input type="checkbox"/>
			Verify facilitator took notes for each standard <input type="checkbox"/>
			Identify facilitator and presenter for the next scoring meeting <input type="checkbox"/>
			Schedule next meeting <input type="checkbox"/>
Upcoming Meetings:	Facilitators' Role	Purpose of Meeting	Wonders for Bruce and Tina:
<input type="checkbox"/>	Prepare meeting agenda in advance, send to team members and link above.	The purpose of this meeting is to provide colleague with authentic feedback on their presented task through open dialogue. As the presenter, the purpose is to be open and vulnerable in listening to task-based feedback and improve instructional effectiveness. Remember, the power is in your conversation! "It takes the human voice to infuse them (words) with the shades of deeper meaning." -Maya Angelou	
<input type="checkbox"/>	Bring spare scoring rubrics for team (appropriate to content area) or teams can look in scoring criteria book.		
<input type="checkbox"/>	Create and share Google Doc for scoring		
<input type="checkbox"/>	*Make this link *Anyone with the link can edit"		
<input type="checkbox"/>			
<input type="checkbox"/>			
NJSD AIW Implementation Plan			
Parking Lot:			

Framework Adaptability. Through the benefit of the PAR methodology, I was able to work alongside the Inquiry Team to support the evolution of the procedures to suit the needs of Rock Valley Middle School. As a result I discovered the conditions that support the successful

implementation of instructional frameworks designed to create powerful learning experiences for students in Rock Valley. This evolution happened through five Inquiry Team engagements where we documented clear next steps in implementation to ensure deeper commitment to creating powerful learning experiences for students through the use of the AIW framework. One member of the Inquiry Team noted during a presentation to the Rock Valley Middle School staff that “sometimes with frameworks, there can be a degree of rigidity to the rules. But this framework is just about great collaboration” suggesting that the framework’s flexibility led to greater collaboration around powerful learning experiences for students. Another member of the Inquiry Team, during the same staff presentation designed to onboard new teams to the AIW process advised staff members new to AIW to “make the framework work for you. It's important to understand the power of the tools provided by AIW, but the real benefits come when you can adjust the framework to meet the needs of your team.” The Inquiry Team in a meeting prior to the aforementioned staff presentation highlighted their work to adjust the framework to suit their needs. The team indicated that they made adjustments to the process by allowing a single staff member to evaluate all three phases of a lesson in a single AIW scoring process. The team adjusted the process so that they would initially score a teacher task and in the same week, all members of the team would attend the classroom where the task was being deployed, and in a follow-up meeting, would score the student work that resulted from the instructional task scored. The Inquiry Team felt strongly this comprehensive approach allowed them to fully evaluate the task and its outcomes. Appendix J provides an example of the adjusted AIW process from an AIW team at Rock Valley Middle School. During an Inquiry Team meeting, the group commented:

We also really streamlined the template, but we tweaked it a lot. It's become very personalized to us. While we know we're going to cover the team norms, we're going to reflect on the task and score the task, but we've just made the process more efficient. I think we've really made some changes so that we get more out of the framework.

Bruce King of the AIW Institute, in an interview during which we reviewed the progress of the Inquiry Team and Rock Valley Middle School's implementation noted

it's a *framework*. It's intended to provide guidelines to great instruction but not a strict tool designed for absolute fidelity. It's important to stay open to the existing structure, but a higher capacity staff tends to take the framework and adjust it to meet their own needs. They observe what's going on and adjust it to move the needle.

Dr. Samantha Lawrence of the AIW Institute affirmed the flexible approach to implementing the framework when she noted in an interview

the training is wildly varied. It depends on what their data shows them. If they think kids are not constructing higher order, thinking, then we work on their questioning technique and we use the framework and rubrics to address these shortcomings.

This was the case at Rock Valley Middle School where teachers were able to apply their understanding of powerful learning experiences to the work they were doing locally on student assessment. Staff members at Rock Valley Middle School, by employing the AIW rubrics, quickly observed that the assessments they used to evaluate student learning were not aligned to the tenets for powerful learning experiences as identified in the AIW framework. One Inquiry Team member observed that:

If you want your instruction to score higher on the AIW rubrics, you have to have your students engage in higher order thinking. But if your learning targets aren't measuring

higher order thinking, then the data you see doesn't seem to match. So working with the AIW rubrics has actually caused me to think about revising my learning targets so that they evaluate higher order thinking which they currently don't all do.

The flexibility of the framework proved to be a feature of implementation that enhanced the richness of instructional delivery at Rock Valley Middle School, effectively addressing the core of instruction specific to their local context.

While the flexibility of the framework most certainly impacted practices in the instructional core, the adaptability of the framework proved to be effective at a systems level accommodating staff members across all content areas at Rock Valley Middle School. The five stages of the Inquiry Team process revealed the success of the adaptability of the AIW framework. Each phase of the Inquiry Team process is outlined below highlighted by the adaptability to serve teachers in all parts of the school organization.

Inquiry Cycle One. At the outset of implementation, the grade configuration of Rock Valley Middle School was different than it was upon completion of the study. At the outset of implementation, three specific pilot teams were selected to implement the AIW framework at Rock Valley Middle School. This team was tasked with working to incorporate the AIW professional development practices into their daily work, regularly engaging in scoring meetings and supported by representatives of the AIW Institute as they became familiar with the process. The initial pilot teams included staff members from core content classes and elective content classes as well as the special education department and the instructional coaching team. While the implementation design was to allow investment in the pilot teams to guide a scaled implementation over the course of two years, the Inquiry Team, as a result of its data review, determined that a schoolwide implementation was warranted even though it would be ahead of

the initial schedule. While the representatives from the AIW Institute typically advise a three-year implementation process, Rock Valley Middle School suggested a departure from this timeline as a response to the feedback they received from pilot teams who realized success in their classrooms in creating powerful learning experiences. A member of one of the initial pilot teams commented:

From the very start of the AIW professional development process, I could clearly understand what things were happening in my classroom that were hindering my ability to provide deep learning for all of my students. We saw the value in the process so much that we often met about AIW for hours in our first year. It (the AIW process) very quickly became second nature when I was planning for instruction in my classroom.

A member of the Inquiry Team suggested that the process became so ingrained in their work from the outset that they often held impromptu meetings outside of the scheduled AIW engagements to gather feedback on instructional tasks. The Inquiry Team member cited an example where they “followed the AIW process but met on the fly to quickly get feedback on an upcoming lesson. We just said, ‘Let’s quickly AIW this’ because we were so comfortable with our team and the process so quickly.” It was clear that by the end of Inquiry Cycle number one, a shift in the implementation plan was warranted.

The Inquiry Team determined that instead of scaling the implementation over three years, they would provide training to the entire Rock Valley Middle School staff in all departments in the second year of implementation. This decision by the Inquiry Team was based on the strong connection pilot team members found to the AIW process almost immediately. Additionally, the Inquiry Team, comfortable with their initial work, determined that an accelerated schoolwide

implementation would provide deeper and more powerful learning experiences to more students. One pilot team member noted:

Kids in our classrooms are getting new learning at all levels. Even our previously successful kids are getting new learning because of our commitment to the AIW process, not to mention students who have not had previous success finding new ways to explore their learning because of the value beyond school component of AIW.

Inquiry Cycle Two and Inquiry Cycle Three. The feedback gathered and considered by the Inquiry Team during the second and third cycles of inquiry suggested a need to invest in anchor team members in support of school wide implementation while adjusting strategies that would support wide scale deployment of the framework. While the teams serving as pilot teams quickly realized the value of the framework, not all teams included in the school wide implementation found immediate success through the AIW framework. Additionally, the Inquiry Team determined that it needed to invest in intentional strategy to build capacity in those early in the professional development process. To that end, it was important for the Inquiry Team to adjust the plan for implementation at the system level by investing in staff members who would serve as anchors to teams embarking on initial implementation. Specifically, the AIW Institute provided the documentation highlighted in Figure 4 to outline the role of Anchor Team members. This shift to incorporate Anchor Team members was a result of the flexibility afforded to the staff of Rock Valley Middle School through the AIW framework.

This decision to incorporate anchor team members shifted the system to ensure a deeper and more committed schoolwide implementation through intentional strategy work. I observed the influence of the anchor team members at a school wide professional development session held at Rock Valley Middle School. Working with the AIW Institute, the Inquiry Team

redesigned the prescribed professional development structure to incorporate anchor team members into a “fishbowl” activity. During this activity, staff members serving on teams new to the implementation of AIW observed a scoring meeting to better understand the process of AIW professional development. This approach was not one that had been included in traditional AIW protocols. However, given the flexibility of the AIW framework, the approach to professional

Figure 4: *Roles of Anchor Team Members*

ANCHORS of AIW Teams

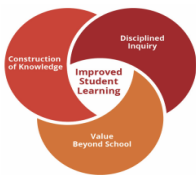
- **Learning Leader** for their team
- Engage in reflection, deep understanding, and implementation of AIW standards and criteria for professional growth and student learning.
- Set tone and culture for risk-taking, collegial sharing, support, and growth
- Identify/seek answers/support for problems with process or understanding of AIW
- Ensure commitment to team norms
- Ensure completion of documentation, if any
- Make sure meetings are organized in advance, including presenting teacher and facilitator prep

Full Implementation (AIW Educator IC Map) :: ANCHORS HELP MAKE THIS HAPPEN

1. Attends professional development as an active participant of the AIW team and shares facilitation duties with members.
2. Chooses tasks to score that are timely, relevant, and in need of improvement.
3. Scores, revises, and teaches tasks. Transfer of new learning from scoring sessions is displayed during planning and instruction.
4. Chooses appropriate student work for scoring based on purpose (representative or outliers). Tasks and/or instruction are revised as a result of scored student work.
5. Observes classroom instruction (both their own and colleagues’) and scores. Teacher reflects on the instructional process and incorporates peer feedback into classroom practices.

ANCHORS are not...

- AIW experts
- Evaluators of individual teachers or teams
- Responsible for “fixing” negative behaviors



development was adjusted to meet the needs of the local context. I watched as observers inquired about nuances of the process while also discussing shifting instructional methods to create powerful learning experiences in the instructional core. One staff member asked: “I noticed that

your lesson addressing a variety of soft skills but those aren't addressed in the AIW rubrics. Can you explain how you incorporate those into your (AIW) work?" Another special education team member wondered: "How do you adjust the rubrics to accommodate students with IEPs?" This level of discourse was a product of adjusting the framework and designing strategy to foster a deeper, more committed implementation process.

Another intentional strategy that reflected flexibility in the framework implementation was the positioning of instructional coaches on multiple AIW teams across content areas and the school as whole. Rock Valley Middle School employs a small cadre of instructional coaches in the areas of Math, Literacy, and Instructional Technology. While the Literacy and Instructional Technology Coaches were included on the initial pilot teams, the anchor teams, and the Inquiry Team, the Inquiry Team made a strategic decision to include the Literacy Coach on multiple teams. The Inquiry Team arrived at this conclusion when they reviewed feedback through which staff suggested observing models of AIW protocols in practice. The Literacy Coach regularly observed AIW scoring meetings conducted by the anchor teams and later participated with early implementing teams. Using her observations of anchor teams, she would work to build capacity in the early implementing teams by sharing strategies that enhanced AIW processes and accelerated the infusion of practices in the instructional core that contributed to powerful learning experiences for students. The Literacy Coach shared her insights on this strategy:

I've been able to watch this team (anchor team) and share the conversations with other teams. It's been really, really helpful because I've already seen these practices work. I've observed you guys (anchor team) and I feel like the work I do with [other teams] is helping them to make gains because I worked with you guys (anchor team) first.

The flexibility in processes provided a more accelerated approach to expanding the reach of the framework to create more powerful learning experiences for more students.

Inquiry Cycle Four. Like the efforts in inquiry cycle one, the Inquiry Team was faced with a new reality in Rock Valley Middle School grade configuration. Due to a successful facilities referendum in the Rock Valley School District, all fifth, sixth, seventh, and eighth grade students would be transitioned to a new facility housing all four grades in a single building. This meant that Rock Valley Middle School would welcome all district fifth graders to the new middle school under this new arrangement. Like the work that was done in inquiry cycle one, the team decided they would expedite the addition of all fifth grade teachers into AIW implementation. As was the case in inquiry cycle one, this flexibility provided a greater opportunity for more students to gain access to powerful learning experiences provided by the AIW framework. Though flexibility of the framework was a condition that was important to the successful implementation, the investment and leadership of pilot and anchor team members proved critical as well; a concept that will be explored in greater detail later.

Table 2 provides an overview of the five cycles of inquiry based on the data gathered through the plan, act, observe, and reflect cycles.

Table 2: *Summary of PAR Inquiry Cycles*

Inquiry Cycle	Theory of Action	Observations and Reflections	Subsequent Theory of Action
One	<ul style="list-style-type: none"> Initiate Pilot Team training to begin implementation Pilot Teams engage in AIW professional development Pilot Teams supported by AIW Institute 	<ul style="list-style-type: none"> AIW processes were immediately incorporated into the work across classrooms Team members observed shifts in classroom experiences AIW principles became second nature 	<ul style="list-style-type: none"> Accelerate the implementation to all staff to provide powerful learning to more students
Two	<ul style="list-style-type: none"> Accelerate the implementation to all staff to provide powerful learning to more students 	<ul style="list-style-type: none"> Those new to adoption needed more substantial guidance Those new to implementation needed models reflective of local context Those new to AIW lacked tight alignment to the AIW framework 	<ul style="list-style-type: none"> Invest in AIW Anchor Teams to support those new to implementation
Three	<ul style="list-style-type: none"> Invest in AIW Anchor Teams to 	<ul style="list-style-type: none"> Anchor Teams lacked strategic focus 	<ul style="list-style-type: none"> Create strategy to be employed by

	support those new to implementation	on professional development relative to AIW <ul style="list-style-type: none"> The work of the Anchor Teams lacked attention to developing professional development systems 	Anchor Teams to enhance professional development at the system level
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Table 2 (continued)

Four	<ul style="list-style-type: none"> Create strategy to be employed by Anchor Teams to enhance professional development at the system level 	<ul style="list-style-type: none"> Gathered feedback on the positive impact of modeling AIW strategies in professional development New AIW teams began to grasp the flexibility the framework could provide in professional development Facilities transition presented an opportunity to expand the scope of AIW professional development to an additional grade level 	<ul style="list-style-type: none"> Accelerate the inclusion of new grade level in AIW professional development
Five	<ul style="list-style-type: none"> Accelerate the inclusion of new grade level in AIW professional development 	<ul style="list-style-type: none"> AIW processes were a continued focal point of professional development efforts Feedback indicated that staff was comfortable with AIW procedures and using them flexibly Lacked outcome data to determine the impact of AIW on student learning 	<ul style="list-style-type: none"> Develop outcome measures to determine the impact of AIW professional development

Established Culture of Feedback

The AIW instructional framework is predicated on instructional staff in schools giving and receiving feedback about practices impacting the instructional core. As previously discussed, instructional staff provide feedback on teacher instructional tasks, student work, and the deployment of instruction itself through a prescribed process. For this process to impact the instructional core and provide powerful learning experiences for students, it became clear to me through the process of inquiry at Rock Valley Middle School that participating staff were open to feedback about instructional strategies that, at times, were deeply personal to those who engaged students in learning experiences. To start, I found that Rock Valley Middle School was guided by a strong data guidance system. This system provided a foundation for staff to engage in professional learning around instructional approaches that have failed to lead to successful

outcomes for students. Additionally, I found that staff members at Rock Valley Middle School were eager to engage in meaningful conversations around instructional approaches because they were guided in their instructional approach by strong curricular frameworks. Finally, I found that Rock Valley Middle School worked to create conditions and systems that guided staff in conversations about instruction that promoted vulnerability amongst instructional staff. Each of these three factors contributed to an established culture of feedback that I observed through the work of the Inquiry Team at Rock Valley Middle School. To develop the theme of an established culture of feedback, I will use the following categories: (1) creating strong feedback systems, and (2) creating space for vulnerability.

Creating Strong Feedback Systems. To establish a culture of feedback, Principal Cooper engaged in intentional work to establish a safe environment to discuss improvement. Tethering the conversations to learning outcomes and student feedback provided a foundation for critique of instructional approaches largely absent of emotion, which can sometimes be the case with instructional staff who have invested in planning learning experiences for students. Cooper reflected on her work and the work of her team to establish a safe environment for improvement discussions:

Prior to COVID, we really dug into data around equitable outcomes for students. We saw significant gaps around traditionally marginalized student groups. This data review provided a greater commitment to vulnerability around instructional approaches that were more inclusive.

Cooper further shared that

We reviewed our student outcome data each summer and created action plans around our data review. When it came time for implementation of AIW, there was not an emotional reaction to it, but more of a curiosity to adopt a framework that would shift our data.

She shared that

We used data to identify gaps in our student performance. This created a curiosity around strategies that would allow us to address gaps in learning. This strong focus on data helped to create an environment where feedback was not emotional or personal, but based on outcomes we were seeing or not seeing.

The investment in data structures was a condition that existed long before implementation of the AIW framework and professional development systems that accompanied it at Rock Valley Middle School. According to Cooper “Our data structures thrived during COVID. This positioned us well to use data to guide improvements in deployment of our curriculum and our instructional approaches.” When it came time to adopt a coherent instructional framework across Rock Valley Middle School, the staff members were not only ready, but they possessed a clear desire to implement systems of improvement. This was the result of Cooper’s investment in data structures long before implementation began.

Recall that a criterion for site selection was a strong instructional guidance system. According to Bryk et al. (2010), schools where learning improves have coherent instructional guidance systems that articulate the what and how of instruction. While a strong instructional guidance system was a criterion for selection, I also found that strong curricular frameworks proved to be an important component of developing a culture of feedback in schools where powerful learning occurs. The instructional staff at Rock Valley Middle School were able to enter into the AIW professional development process with an openness to feedback because they

were committed to the what of instruction. Rock Valley Middle School spent several years prior to AIW implementation addressing needs in their universal curricular structures. As such, they were more confident engaging in critical conversations about the how of instruction; something the AIW framework is uniquely designed to do through its professional development processes. During an interview with a Math teacher from Rock Valley Middle School, she discussed her experience with Illustrative Math, a curriculum program that had been adopted at Rock Valley Middle School in the years prior to AIW implementation. This teacher indicated that she was “using a pretty scripted Illustrative Math program.” She discussed her willingness to engage in conversations about creating more powerful learning experiences within the Illustrative Math program via AIW. She shared: “Now that I am well versed in Illustrative Math...I have been bringing my lessons to the team and asking them to give me feedback on making this lesson have more value beyond school.” Her English teacher teammate added that they “then took that lesson, added value beyond school and then created a writing process that went along with the lesson but also fit into our identified writing curriculum.” The foundation of a strong curricular program provided the confidence to these two teachers to explore enhancements to their instructional approach in a way that exhibited an openness to feedback.

Though the Math program was a prescriptive one, the teacher indicated that AIW guided her through a process by which she was able to identify components of the curriculum that were less impactful in favor of experiences that had greater value beyond school. She shared the following example of leveraging AIW practices to enhance identified curricular frameworks:

I'm using a pretty scripted Illustrative math program. Typically the last lesson of the unit is the real life activity, but I didn't always get to it. Now that I am well versed in Illustrative math, I know what I can stretch together or when I can squeeze in a lesson

and a half in a single class period. So I get three lessons done in two days and build in that extra time for the real world stuff. So I have been bringing that extra lesson to the AIW team to try and create something more real world. They're helping me hone in and so we've done that with two out of the eight units. So far. We've created something where it's real world and the kids are really engaged!

Creating Space for Vulnerability. The use of data and curricular frameworks proved to be an important part of creating a culture of feedback. Perhaps more critical was the development of structures and systems that created space for staff to be vulnerable and open to feedback with and from their peers. The development of AIW teams alone can be an example of creating systems for instructional staff to give and receive feedback. At Rock Valley Middle School, Principal Cooper and the Inquiry Team used the AIW framework to develop these structures.

The topic of teacher leadership will be explored later. It was, however, the teacher leaders who provided context to the imperative of embracing vulnerability in practice to the instructional staff as a whole. One Inquiry Team member, when addressing the full staff of Rock Valley Middle School shared that “You do have to be vulnerable and be willing to take feedback seriously” in order to create powerful learning experiences for students. During the same presentation, another Inquiry Team member stated that “It takes some vulnerability to be successful.” According to a member of the Inquiry Team, “The number one benefit (of the AIW professional development process) is outstanding feedback from trusted colleagues.”

The concept of vulnerability was a condition that Principal Cooper quickly identified as a key to the success of the AIW professional development process. More importantly, the actions that Principal Cooper took to create systems where vulnerable conversations occurred was a more important condition that supported the development of powerful learning experiences for

students across the entire school community. Principal Cooper devoted a minimum of 16 hours of professional development time annually to engage staff in structured activities designed to create vulnerable conversations. An example of the systemic approach taken by Principal Cooper was a four hour development session with her entire staff in conjunction with representatives from the AIW Institute. As I previously discussed, Principal Cooper created an opportunity for staff members to observe the AIW professional development process through a “fishbowl” activity designed to position a successful team in front of less experienced AIW teams. When addressing the staff, Cooper challenged her staff to “commit to deepening conversations with colleagues.” Importantly, she shared with her staff that she chose the team to participate in the “fishbowl” activity because they had “become very, very good at having vulnerable conversations.” I was able to observe the subsequent “fishbowl” activity and observed these vulnerable conversations in action. During the “fishbowl” activity, a first year teacher provided the following feedback to a veteran teacher who was presenting an instructional task: “I saw no writing, collaborating, or students creating their own thoughts. From my perspective, those elements need to be added to the activity for it to meet the standards of the AIW rubrics.” This feedback was not only welcomed by the individual presenting the task, but was met with further curiosity as she asked “Can we generate some ideas together to change the parts of the lesson that ask kids to develop their own thinking?” The use of the professional development time with intentionality while allowing all staff members to observe this level of vulnerability was but one example of the leader creating systems where vulnerability was able to flourish.

The professional development structures that Cooper developed were the first step in creating systems that promoted a culture of feedback and vulnerability. More importantly, the consistent systems that she developed to promote feedback and vulnerability were critical in

creating powerful learning experiences for students across Rock Valley Middle School. As previously indicated, Cooper required teams at Rock Valley Middle School to commit to regular team meetings to score instructional tasks. This structure was critical in developing space for vulnerable conversations to occur around instruction. A member of an initial implementation team discussed the importance of this structure when she indicated:

I also feel like it brought our teams camaraderie and trust in each other to the next level because when you're vulnerable and you're not touting what a great teacher you are all the time and you realize that maybe the Math teacher can help you a lot in ELA (English Language Arts), that created a stronger relationship as a team. The conversations became even better when we created smaller, more manageable groups because everyone had a voice in the process.

The Inquiry Team affirmed that these vulnerable spaces were working as designed when they discussed how team members approached their work. Reflecting on the journey through implementation of the AIW professional development, an Inquiry Team member shared the following:

I've changed how I think about the AIW process. I brought something at first that I was hoping would score high (on the AIW criteria). But now, we're at the point where we're bringing something we hope to improve on so it benefits the kids. I've seen that firsthand.

Yet another staff member shared similar sentiments: "We stopped bringing our best work. And we really started bringing the work that we needed help with. Being vulnerable is a key part I think for AIW to get the biggest bang."

Upon further reflection, Principal Cooper shared the success Rock Valley Middle School found in creating these structures. Principal Cooper indicated:

And so even though some of this feedback may be hard for [team members] to hear, it's become such a norm because they're routinely doing this (the AIW professional development process) and so it comes with practice. So they have held steadfast to having these weekly meetings, and that has expedited their vulnerability. And once they're getting feedback, they become almost hungry for this feedback. They almost crave these meetings because they love the opportunity to talk with adults deeply about their craft. They're passionate about it. And then from there, they know they're going to get a turn (at presenting their tasks) and it's worth it. They have a deep desire for that.”

It was clear that Rock Valley Middle School embraced the culture of feedback that was a clear priority for Principal Cooper and that this culture was an important condition that existed in support of creating powerful learning experiences for students.

Instructional Leadership

Perhaps the most significant finding in the work with Rock Valley Middle School was that having dedicated system leadership was an important condition in support of instructional frameworks that provide students with powerful learning experiences. In an interview with Dr. Samantha Lawrence, she indicated that

The biggest reason for AIW implementation to stop is a change in leadership. I think that schools that stayed strong and had principals, curriculum directors, superintendents, and instructional coaches that remained committed allowed for effective implementation. I could tell you the moment when AIW implementation stops by looking at change in leadership.

Notably, instructional leadership, according to Lawrence, extends beyond the building leader. Rather, instructional leadership is the work of a group of people in support of effective

implementation. What I observed at Rock Valley Middle School was a strong building leader with a strong team who created accountability structures that supported a clear vision for student learning. The clear vision included common language for instructional staff that provided guidance for the existence of powerful learning experiences. Within the theme of instructional leadership, I have also included four themes. They are (1) clarity of an instructional vision, and (2) layered approach to leadership, (3) common experiences for powerful learning, and (4) accountability for classroom practices.

Clarity of an Instructional Vision. Though Principal Cooper was the principal of Rock Valley Middle School, she also served as a leader on the Rock Valley School District secondary schools leadership team. As a member of this team, Principal Cooper invested in a process to identify an instructional framework that would extend her instructional vision to staff throughout her building. As a part of their work to establish a strong instructional vision for secondary schools, Cooper and the secondary schools leadership team evaluated five instructional frameworks to be implemented in secondary schools. Using criteria they developed based on the work of John Hattie, this team evaluated research on each of five instructional frameworks, one of which was AIW. The following questions were used to guide the conversations around the choice of instructional frameworks:

- What will students be doing?
- What will teachers be doing?
- What is happening in classrooms?
- What is required of you as an instructional leader?

Figure 5: *Rock Valley School District Instructional Framework Identification Protocol*

Criteria to enhance student learning:	Strength	Weakness	Unable to determine	Notes
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Does this framework provide teachers the ability to reflect on their impact on their students' learning?				
Does this framework employ assessment of student learning to plan for future instruction?				
Does this framework allow teachers to collaborate with their peers and students to determine impact on learning?				
Does this framework ask teachers to set high academic expectations so that ALL students can learn?				
Does this framework allow teachers to challenge their students' learning?				
Does this framework provide opportunities for rich feedback for their students?				
Does this framework promote student-student and student-teacher dialogue and discourage teacher-student lecture?				
Does this framework allow for teachers to clearly convey the goals for instruction?				

Using these questions as an entry point into evaluation of the frameworks, the team identified the criteria included in Figure 5. This process challenged the leaders of the Rock Valley School District to clearly define their instructional vision and ultimately led to the choice of the AIW framework. As the team refined their instructional vision, Principal Cooper engaged her staff in more clearly defining the vision for them. Figure 6 includes a portion of the training materials used to better articulate the instructional vision for Rock Valley Middle School.

Figure 6: *Rock Valley Middle School Training Materials - Instructional Vision*

"If good instruction — in every classroom and for all students — is the central focus of systemic change in education, *then districts need to define 'goodness' and come to a shared understanding of what is meant by great or even competent teaching.*"

—Tony Wagner, *Change Leadership*

Authentic Intellectual Work Framework

Construction of Knowledge

Disciplined Inquiry

Improved Student Learning

Value Beyond School

Prior knowledge base
In-depth understanding
Elaborated Communication

Teacher Assessment Tasks - Student Performance - Instruction

Four Guiding Principles of AIW PD, p. 97-99 N-C-K 2016

1. The Power of Being Authentic: Professional learning itself should reflect AIW.
2. The Power of the Collective: AIW professional learning should build a strong learning community.
3. The Power of Being Organic: AIW implementation should vary with context, relying on teachers' PoP related to authentic instruction.
4. The Power of Risk-Taking: Taking intellectual/professional risks should be supported.

Upon selecting the AIW framework, Principal Cooper, in conjunction with the AIW Institute, began the process of articulating the vision for instruction in earnest. The priority of the AIW framework became a part of each professional development opportunity. Using the work of Newmann, Carmichael, and King (2016), Principal Cooper provided opportunities for staff to engage fully in the framework while establishing her priorities for classroom instruction. In the AIW kickoff meeting, held with all staff members at Rock Valley Middle School, Principal Cooper provided the staff with excerpts from the work of Newmann, Carmichael, and King (2016). Staff worked to familiarize themselves with the components of Cooper's vision for instruction using the following prompts:

1. To what extent do you agree with the criteria and rationale for authentic intellectual work as a goal of teaching across grades and subject areas? What clarification questions do you have, if any?
2. To what extent are the three criteria for authentic intellectual work consistent with best practice in your grade or subject area? Are they consistent with content standards and the scope and sequence of curriculum in your context? Other

school/district initiatives?

As the work of Principal Cooper and her team progressed, it was clear that the staff fully understood the vision for instruction at Rock Valley Middle School and that their understanding provided the conditions for an effective implementation of AIW. A member of the Inquiry Team shared: “Kara had done this before and was clear about what should be happening in classrooms. We bought in because we could see the vision. This wasn’t just going to be another thing we were doing at Rock Valley Middle School but was going to stick around.” Another member of the Inquiry Team commented: “We’ve seen a lot of things come and go. This seemed different because what was happening in our classrooms seemed different and that’s what Kara was asking us to change when we started this work.” Finally, a member of one of the implementation teams shared the following:

When we started this work, Kara was really clear about giving our lessons value beyond school. It was clear she wanted us to give our instruction life beyond the walls of the classroom. I’d been waiting for that type of vision and investment for 20 years. You kind of do all this stuff for 20 years, but when you have a leader with a clear vision and she gives you the tools to do it, it keeps you going. That and she kept us accountable to actually doing the process of AIW.

This clear instructional vision allowed for the conditions to exist at Rock Valley Middle School that supported the implementation of the AIW framework.

Layered Approach to Leadership. Dr. Samantha Lawrence of the AIW Institute identified principal leadership as a critical component to successful implementation of the AIW framework. In an interview with Lawrence, she indicated that “Districts that I have worked with that were ‘high flyers’ have strong, strong administrative support. In successful schools, I have

seen success when [a principal] can sit as a learner with their staff and do it (AIW) with them.” Principal Kara Cooper serves as the embodiment of this notion. Principal Cooper served on the very first implementation team at Rock Valley Middle School. She was not the leader of the implementation team but was an equal partner with the members of the team. Principal Cooper participated as a learner in scoring meetings from the start and learned along with her team. Importantly, she devoted time to learning the core components of the framework as a team participant. I observed Cooper as a team member who presented an instructional task just as her instructional staff would. I observed Cooper giving and receiving feedback from peers on instructional tasks that were brought to the implementation team. I observed Cooper serving as the notetaker in scoring meetings, as the timekeeper in scoring meetings, and as the facilitator of scoring meetings. Each of these roles were distributed and rotated amongst the team at each scoring meeting. Upon reflection, Cooper shared with me that her participation helped to “create a collaborative partnership with her staff and helped her staff to see her as open to feedback just as she expected them to be.” Dr. Bruce King of the AIW Institute, who worked alongside the Rock Valley School District and Rock Valley Middle School, noted that the strength of the implementation at Rock Valley Middle School was that the “leader was embedded on the teams.” A member of the implementation team reinforced the value of the principal’s involvement as a team member:

Even though Kara was on our team, I never felt reluctant to give feedback and I never felt judged by the feedback I was getting. She was just another member of our team. I think that goes a long way with our staff. She was a part of the team that trusted each other and our staff saw that as they started their work. It mattered.

As a systems-minded leader at Rock Valley Middle School, Principal Cooper was able to adeptly leverage her learning as a team participant to develop a system that promoted a successful adoption of the elements of AIW into classrooms in Rock Valley. These systems were built with intentionality and long-term planning in mind. Importantly, Cooper was a catalyst on the Inquiry Team that reviewed feedback and evolved the AIW framework to engage all staff members. She first created the implementation teams that would invest deeply in the elements of the framework that they might later support staff engaged at all levels of adoption. Along with the Inquiry Team, she invested in the development and the deployment of anchor teams. I observed the anchor teams emerge as leaders in professional development events. At one event, they modeled a scoring meeting for an assembled staff of over 100 and received questions from staff members about their investment in the process.

Most importantly, when developing these systems in support of implementation, Cooper did the work to identify staff members who possessed strengths to lead through the process of implementation. This was a significant part of the Rock Valley Middle School process of implementation. Cooper shared that she,

Found the most curious people in the building who would, above all, be vulnerable and open to feedback. I found people who wanted to collaborate with people outside of their immediate team and I wanted to find people with credibility; staff members that all staff members, regardless of what they taught or how long they've been teaching, could identify with.

She further entrusted these leaders to serve on the Inquiry Team who not only participated and advised staff on the process, but who guided the implementation efforts for all of Rock Valley Middle School. Later, in a professional development opportunity that I observed, Cooper shared

with a group of principals from the Rock Valley School District who were considering implementation of AIW at Rock Valley High School: “Growing your own leaders is critical.” At this same professional development, Bruce King advised the assembled administrators that

Kara will make sure that there are some anchor team members at (the next professional development opportunity) that are Rock Valley Middle School teachers who are well versed in AIW to help provide leadership and just to hear that that experience and what they have gained from working with the framework over more than one year can be really beneficial for the high school staff to hear.

Notably, Kara Cooper relied on the voice of her teacher leaders to share the benefits of their AIW work instead of sharing her thoughts as the leader of the effort revealing her intentional work to identify teacher leaders.

While Cooper’s leadership was vital to the AIW implementation efforts, as previously stated, her most significant influence was observed in her investment in the teacher leadership at Rock Valley Middle School. The very nature of establishing Inquiry Teams signaled the importance of placing teachers at the center of implementation efforts. Further, investing in implementation teams to gain expertise in the process so they might later serve on staff anchor teams was indicative of the intentional strategy to place instructional staff at the center of the implementation efforts. Through five cycles of inquiry, the Inquiry Team gathered and responded to data and feedback to guide next steps in implementation. As a result, staff who were subsequently tasked with implementing had a credible team of colleagues upon which they could rely for expertise. A staff member at Rock Valley Middle School commented on her work as a member of the implementation team:

When we started working with a new team member we literally taught her how to do AIW. Meanwhile, all of us on the implementation team were thinking about our next steps while we brought her along. It wasn't really until we had time under our belt with her that the process really took off! And even after we moved into our new building, we requested rooms together so we could continue our work as a team. Our new members really came to trust us and we were motivated to keep working to make things even better.

Having teachers at the center of implementation efforts was critical in fostering the growth of the framework.

Notably, at a professional development event that I observed at Rock Valley Middle School, Cooper made the decision to use the Inquiry Team to present to the staff members. Indicative of the influence of teacher leaders, one Inquiry Team member suggested to the staff: "Reach out to other teams that have been doing this work before." This was a result of the work the Inquiry Team conducted in inquiry cycle number four when they decided to add another grade level (grade five) as a result of a facilities transition that reconfigured grade levels at Rock Valley Middle School. Alluding to the aforementioned presentation by the Inquiry Team to staff, Principal Cooper shared the following reflection:

And that's what I found really intriguing after the Inquiry Team shared out at the (professional learning day), we did a brief meeting with our new fifth grade teachers and they said: 'although we don't have everything in place to consistently do this, how can we adopt some of those practices?' I found it so interesting that after one single presentation, our staff was ready to go and that was because we had our teachers lead the presentation. And then later, we exposed the staff to one of our Inquiry Team members'

tasks and not some artificial task. That was really critical because he also modeled how to engage in the feedback in the AIW process. I learned that having our own staff present this was so much more powerful and impactful for our staff. They can actually see the returns their own colleagues are getting.

In short, the investment Principal Cooper made to empower her staff to lead AIW implementation paid significant dividends in creating the conditions where AIW could flourish.

Common Experiences for Powerful Learning. Rock Valley Middle School, prior to implementation of the AIW framework, completed substantial work in the areas of curricular frameworks and assessment of student learning. District leadership determined that there was a need to address instructional approaches in classrooms. Recall that I previously indicated that powerful learning experiences include student-driven inquiry resulting in transferability of learning experiences to new and unfamiliar situations. Students who were provided these elements are provided a more authentic and real-world learning experience. As such, AIW provides the framework for powerful learning experiences by requiring tasks that require students to engage in construction of knowledge through disciplined inquiry that has value beyond school. These elements became an intentional part of the work being conducted in classrooms at Rock Valley Middle School. However, according to Principal Cooper, the district's Curriculum, Instruction, and Assessment (CIA) department had "done much work on the 'C' and the 'A' but didn't really do much about the 'I'." Cooper also maintained that clear instructional guidance provided by the AIW framework would help to "elevate the already strong curricular frameworks" and allow "teachers to more effectively deploy the curriculum in ways we haven't seen before. We need to speak the same instructional language." Through the work of the Inquiry Team, Rock Valley Middle School leveraged the professional development model

to create common language around approaches to instruction in all classroom settings. When discussing the work that AIW teams conducted in regular scoring meetings, a member of the Inquiry Team who served as a Literacy Instructional Coach indicated:

What I see happening with all of our AIW teams as I sit in their meetings is they spend a lot of time really discussing tasks and where it falls on the rubric. It can go really slow because people really stick to using the rubrics. But eventually, they start to bring in work that needs attention and they'll say to me 'let's AIW this.' Almost like AIW is a verb and they begin to ask things like 'How can we give more value beyond school to this lesson' or maybe 'How can we create more of an authentic audience for this lesson?' This language has really helped me move the work into my daily coaching with teachers because they know what to ask me about their instruction.

The common instructional language became apparent when interviewing staff members who spent ample time incorporating the elements of AIW into their classroom instruction. A Social Studies teacher shared the following anecdote about a lesson he transformed as a result of his familiarity with AIW:

This year, I had my best (AIW) scoring on a Judicial Branch vocabulary lesson that I taught. In past years, I would have just taught the vocabulary on the fly. I would just tell my students, 'Here's what the term means and here's how you might use it.' But this time, after working with my (AIW team) we really focused on creating an authentic experience for the kids because of the feedback I received from my team. So kids were working with the terms in a breakout room type of lesson. The kids had to utilize the terms after a short story that our Instructional Technology Coach put together for them.

They worked together to use the terms rather than just identify them. It was awesome!

The kids really understood these terms on a deeper level because we ‘AIW-ed’ it.

The staff at Rock Valley Middle School committed themselves to the AIW process and the rubrics that were used to score their instructional approaches. Recall that I have included sample rubrics in Appendix I. By employing the language of the AIW rubrics, staff at Rock Valley Middle School were able to provide more targeted feedback to their peers while moving their instruction toward more powerful learning experiences for their students that included student-driven inquiry resulting in transferability of learning experiences to new and unfamiliar situations. As Principal Cooper noted, the use of the AIW language and rubrics “helped the staff think more strategically and intentionally around what they are asking their students to do.”

Cooper explained that,

Once a team has fully engaged in the AIW process, it doesn’t leave them. It becomes part of their thinking around instruction. Whether it’s a Language Arts teacher or any other content area, they are always wondering how they can ask more in-depth questions about how they are getting kids to construct their own knowledge, engage in elaborated communication, and how their lesson has value beyond school. It eventually becomes second nature. They are always thinking critically about their own content.

The AIW framework provided the staff at Rock Valley Middle School the opportunity to frame their instruction around a common language provided by the framework and the associated professional development.

While the language of AIW provided the framework for staff discussion and feedback related to powerful learning experiences, the recognition of their impact on these experiences became an important foundation for creating powerful learning experiences for students at Rock

Valley Middle School. Staff came to realize the impact their instructional approach had on shifting practices in the instructional core. This common understanding created the conditions for greater impact for students in classrooms across Rock Valley Middle School.

Upon reflection of the work being done in his classroom, a member of the Rock Valley Middle School staff indicated: “I’m never going to go back to the old way because I am now always thinking about creating these valuable experiences for my students. I now just think in this manner. Just how I think about instruction is different.”

Another staff member discussed how the framework has created a new way to think about creating powerful learning experiences for students:

I really only get to score three or four lessons over the course of time because we take turns scoring lessons. How much of an impact am I really having? But once we’re starting to think in an AIW way as we’re planning, we start automatically putting them (AIW criteria) in without thinking, I am actively thinking about putting AIW into every lesson without going through the whole (AIW) process.

A special education teacher, who served on the Inquiry Team discussed the way this process has changed his assessment practices: “A lot of how I look at AIW is changing how I assess kids. If I think about how I assess kids from five, six, seven years ago, my assessments are going to look a lot different (because of AIW).” A Science teacher who served on the Inquiry Team noted:

I’m asking kids to do a lot more project-based learning. I’m asking kids to do a lot more modeling and explaining of the concepts than what I used to do for sure. I’m asking kids to do a lot more of their own research than what I used to do. I remember when I first started teaching, I did what a lot of the other veteran teachers did at that time. There was a lot of taking notes. They spoon-fed the students the information. And then, here’s a lab

to reinforce what they already learned. And now, I've reversed that. I use a lot of labs for the students to investigate and learn that way as opposed to spoon feeding them. The students are taking their own notes, they're building their own models.

As the Inquiry Team continued to collect data and reflect on the shifts they were experiencing in their classrooms, they came to understand that they were developing a common set of expectations for powerful learning experiences in classrooms. A Math teacher who served on the Inquiry Team noted: "That has been the most fun part about it (the AIW process). From a teacher's lens, seeing how the kids would take (their learning) and try it in a different way." Another member of the Inquiry Team indicated that "a lot of what we're asking kids to do has value *after* school. When they get out of school and into the real world, the way that they think. The tasks that they're going to be asked to do in their job, in their life, is going to be easier because of what we're asking them to do now." Based on the information our Inquiry Team gathered through this process, it became clear that staff members at Rock Valley Middle School had reached a common understanding of the impact of powerful learning experiences for their students.

Accountability for Classroom Practices. The Inquiry Team at Rock Valley Middle School and the teams that worked to incorporate the AIW framework into their classrooms came to recognize the impact of powerful learning experiences. However, in order for the framework to impact all students at Rock Valley Middle School, accountability for these practices was a condition that helped to ensure that all students would experience the effects of the instruction embodied in the framework. This level of accountability was an important part of the work of Cooper and the Inquiry Team. Cooper held firm in establishing accountability to the practices embodied in the framework. Cooper required all members of her staff to engage in at least one,

AIW scoring meeting each week. Staff members at Rock Valley Middle School spent approximately 90 minutes each week with their AIW teams to fully invest in using AIW professional development processes to give and receive feedback related to instructional practices. Principal Cooper required team members to document meetings each week and report the results of these meetings to her and her leadership team. Her team of four administrators along with the Inquiry Team reviewed the details of the meeting regularly to make decisions about subsequent strategy related to the implementation process.

While not a part of this specific study, the high school in the Rock Valley School District was working to implement the AIW framework into its instructional program with less success. Cooper, as a result of the work and that of her team, served as informal advisors to the high school. As an observer in those meetings, I learned of Principal Cooper's priority to create accountability structures at Rock Valley Middle School. She shared with the team:

We (Rock Valley Middle School) really held steadfast to making sure our teams were meeting weekly and that really expedited the vulnerability they felt in giving and receiving feedback to the point where they're now really hungry for this feedback. We have all those pieces in place. They read the debrief of their meeting at the end. Then they start the next meeting with what they actually put into action. So from an accountability standpoint, they get their feedback, they get to debrief, then they come back and start their next meeting, after they've had a longer time to process, by talking about what they are actually doing with the feedback. There's just a built-in accountability for the team about how they are actually going to use the feedback.

This accountability was the result of the deliberate approach by Cooper and the Inquiry Team to create structures that held firm to the components of the AIW framework.

The accountability structures were the subject of the reflection of staff members at Rock Valley Middle School who experienced the implementation of the AIW framework. During an interview with members of the Rock Valley Middle School team, I asked them for their perspectives on staying committed to the framework. One member commented:

Well, Kara (Cooper) makes us record our meetings and submit our notes to her. It's a pain in the (butt), but it makes us keep doing it. We really had to force ourselves to become AIW experts. At times I used some excuse language like 'we *have to* do this AIW thing.' But eventually I realized 'holy cow this really works and we're seeing the fruits of our labor!'

Understanding that these accountability measures can breed compliance in educational settings, I asked this staff member why they continued to invest in AIW unlike other initiatives that they had experienced with less success. Her response: "Because there's value to it! The outcome at the end was truly valuable." Absent the commitment from Cooper and her team, it became clear that these staff members may not have invested in the process long enough to encounter the value they found in their practice.

As Cooper built the accountability structures along with the Inquiry Team, it became apparent that staff members experiencing the professional development component of AIW began to feel a sense of accountability to their peers through the process. Once they gained an understanding of the framework, they found that the commitment to give and receive feedback from their AIW teammates was even more valuable than the accountability measures established by Cooper and her team. One member of the Inquiry Team, upon reflecting on the process commented: "When I started with this team, I remember that first meeting and I thought 'Ok, what are we doing?' But once we got established, it was much easier to commit myself to this

process with these teammates knowing if I brought the right stuff, I'd get great feedback.”

Another Inquiry Team member described how the collaborative process of AIW provided more meaningful growth in her professional practice because of the accountability to her peers to give and receive great feedback. She shared:

I had a meeting with an administrator at the end of the year where we discussed my evaluation. We talked about (a separate initiative that was a directive from the district) that we were also supposed to be doing and I told him, I got a lot more out of my AIW work and it was because the meetings with my teammates were helping me actually become a better teacher.

Another team member elaborated further on this point:

We've seen a lot of things come and go. This one (AIW) started and I guess I'm seeing a lot of us are more willing to be vulnerable because of our teammates. I remember my first task that I brought to my team, I knew it was going to score like trash. It was just going to be bad and I knew some things had to change about it. Because of the feedback I got from my team, good outcomes came out of it. So that kind of turned my light bulb on and got me more excited about doing more. And now I've seen how it's impacted my kids in my classroom in terms of their sheer will to get engaged with the material; that's significantly greater. It's awesome!

In sum, while the instructional leadership provided by the building principal supported a foundational commitment to creating powerful learning experiences for students, the accountability to peers through continuous cycles of deep feedback created sustainability of the framework.

It was this sustainability that fostered the work in inquiry cycle number five. In inquiry cycle number five, the team began to explore the idea of developing outcome measures for students who were experiencing the powerful learning experiences resulting from the AIW professional development process. The team explored employing a variety of measures including the following:

- Standardized measures of achievement included in achievement tests
- Student feedback data measuring their engagement levels in classroom instruction
- Leveraging district-developed learning targets to engage in comparative analysis of those receiving developed AIW instructional approaches versus those who were not
- Student behavior data measuring the degree to which students engaged in off-task behaviors resulting from engagement in powerful learning experiences
- A narrowing of the disparity between student subgroups to better understand the manner in which a wider swath of students would be engaged in classrooms with more powerful learning experiences

As of this writing, a formal system of outcomes had not been developed. However, the idea that the leadership team was exploring outcomes independent of district-developed outcomes is an indication of the accountability to the AIW process and their AIW teammates.

Challenges and Next Steps

In the preceding sections, I showed how dedication of resources, flexibility of the framework, an established culture of feedback, and instructional leadership seemed to be the critical factors in the successful implementation of the AIW instructional framework at Rock Valley Middle School. Of course, implementation at the school continues to be a work in

progress. Of primary importance is creating systems that measure outcomes of the framework. While Principal Cooper and her team were confident in the infusion of powerful learning experiences in classrooms across Rock Valley, there still exists no clear measure of the degree to which shifts in practices in the instructional core have led to enhanced student outcomes.

The Inquiry Team noted their uncertainty to measure outcomes at the point of the fifth inquiry cycle. It was observed that significant time was devoted to AIW implementation, members of the Inquiry Team recognized that, given the deliberate nature of the scoring process, they may only have the opportunity for their team to critique a few lessons in the span of a school year. This is especially true for teams in the early stages of implementation. One Inquiry Team member indicated:

This is only my third or fourth lesson that I've scored since we started. So how much of an impact is that really making? Even though I am thinking differently about how I plan because of AIW, I'm just not sure what impact it's having with clear data yet. What would that data be?

A challenge that the team encountered was clear and measurable data related to powerful learning experiences.

To that end, the team considered the following outcome measures as they began to plan their fifth inquiry cycle:

- Standardized test data
- Student surveys
- Standardized test data using comparison student groups
- Classroom-specific assessments
- Behavioral incident data to determine student investment in instruction

- Observation data from classroom evaluations

While each was posited, there remain challenges related to the collection of outcome data related to the impact of powerful learning experiences on student performance.

Members of the Inquiry Team as well as Principal Cooper noted the lack of alignment between district-identified learning targets and their alignment with the elements of powerful learning experiences. Many of the district-identified curricular learning targets were established prior to the implementation of the AIW framework. District leaders and the Inquiry Team noted that the learning targets represent lower cognitive demands for students and thus, when aligning powerful learning experiences to antiquated learning targets, the connection lacked a complementary nature of learning targets to instructional approaches. A member of the Inquiry Team noted:

Now that I've gotten further into the AIW process, I found that the learning targets that we created as a Science team don't really ask kids to do things that AIW is asking. Given where we are with AIW, we may need to go back and revise our learning targets.

The alignment between learning targets and instructional priorities is a current challenge at Rock Valley Middle School and an important next step in the inquiry process.

Finally, an important next step for Rock Valley Middle School is to leverage the framework to bridge the gaps that exist between content areas and grade-level teams. Staff and administrators alike articulated the importance of fully engaging the power of the learning experiences in the framework to create a truly interdisciplinary approach to student learning. Though some of the teams that initially implemented the framework have begun to explore creating cross curricular approaches to powerful learning experiences, staff who were

interviewed for this study felt that true coherence could be accomplished more effectively when powerful learning experiences were connected across classrooms.

Summary

The purpose of the PAR component of this study was to determine the conditions and practices that exist in schools that promote the successful implementation of instructional frameworks that promote powerful learning experiences for students. To answer this question, I used the PAR sample to both study the conditions and practices while serving as a practitioner to promote them in order to create equitable outcomes for students. Through five cycles of inquiry, four themes emerged.

The first of those themes was the dedication of resources to support successful implementation. The leadership of Rock Valley Middle School worked to provide the resource of time and personnel to support implementation. Additionally, the principal along with the Inquiry Team worked to ensure that AIW remains the sole focus of professional development while removing the barriers presented by competing initiatives. Finally, the use of job-embedded professional development allowed the work to implement the framework within the instructional core.

The second theme that emerged was that of flexibility of the framework. The Inquiry Team along with the principal worked through cycles of inquiry to create conditions whereby staff were able to adapt the framework to meet their specific classroom context. Additionally, adapting the framework to meet the needs of staff members in all content areas created conditions for inclusion of all staff thereby promoting more powerful learning experiences for more students.

The Inquiry Team and the principal of Rock Valley Middle School also worked to create a culture of feedback where staff were both receptive to feedback from peers while being empowered to provide meaningful feedback in return. The existence of strong data systems, strong curricular frameworks and the creation of systems to promote vulnerability to feedback emerged as an important theme.

Finally, the theme of instructional leadership was one that emerged through the data gathering process. The existence of a clear instructional vision through a layered approach to leadership that leveraged the strengths of administration and instructional staff alike were conditions that supported the implementation of the AIW framework. Importantly, accountability measures both to administrators and instructional colleagues existed supporting a deeper implementation of AIW. Together, these created a common language and experience for students that led to powerful learning experiences.

In Chapter 5, I will provide a comparative case study to better ground these themes in what the conclusions conveyed in Chapter 6. Together, these case studies will provide findings that can inform future work on conditions that support practices that exist in schools that promote the successful implementation of instructional frameworks that leading to powerful learning experiences for students.

CHAPTER 5: Beamon Community Secondary School

Introduction to the Beamon Community Secondary School Case

The Beamon Community School District professes to be one of the most proud and progressive school districts in its state. As such, the Beamon Community Secondary School began adoption of the AIW framework in 2017 with an earnest staff and leadership team's desire for innovative professional development. The Beamon Community Secondary School was identified as a case study where successful implementation of an instructional framework, namely AIW, could provide a rich data set to inform this study.

As I detailed in Chapter 3, Beamon Community Secondary School is a secondary school serving students in grades 7 through 12 located in a rural community in the Midwestern United States. According to the 2020 United States Census, the community of Beamon itself has a population of 2,924 residents the district includes a number of rural communities spanning two counties. About 4% of residents in Beamon experience poverty while the Beamon Community School District reports about 33% of students qualify as low socioeconomic status. While the community of Beamon is comprised of 95% white residents with no other ethnic or racial group registering above 1%, the Beamon Community School District includes the following makeup of students: 89.8% White, 6.9% Hispanic, 2.4% Multi-racial. Other racial groups represent less than one percent.

Though the community of Beamon is a rural community, it is located midway between this Midwestern state's third and fifth largest cities. The Beamon Community School District includes about 900 students in Kindergarten through grade 12. Though all grade levels are located in a single building, the elementary school, serving students in Kindergarten through grade six and the secondary school, serving students in grade seven through grade 12, possess

individual staffs and leadership teams. The Beamon Community School District has a history of strong academic success consistently performing at or above the state average in key proficiency metrics in the areas of English and Mathematics each year since 2018, the first year for which this data was publicly available. Recall, that the criteria for the mature case study sample outlined in Chapter 3 will:

- Have fully implemented AIW for at least three full school years.
- Include a staff that has been through all the formal stages of AIW training.
- Include the AIW process in all academic settings and not exclude specific programs, departments, or classrooms.

Guided by of Bryk et al.'s (2010) framework of essential supports, the mature AIW school will also include:

- A school level leader who has led through the process of AIW implementation.
- A staff characterized by high professional capacity characterized by the teacher orientation toward innovation, teacher involvement in professional development both internally and externally.
- A student-centered learning climate characterized by minimal disruptions to the learning environment and a strong orientation toward achievement with minimal disruptions as reported by teachers relative to incidence of classroom disruptions.
- A strong instructional guidance system characterized by the teaching of basic skills as well as a strong emphasis on application of learning; teachers are provided support to ensure these guidance systems inform their decisions in the classroom.

While the demographics are not an exact match with the Rock Valley School District, Beamon Community Secondary School met the criteria previously outlined for a mature AIW school. As

a part of the identification process, the AIW Institute assisted to ensure that not only were the criteria outlined above met, but that a successful implementation of AIW had been accomplished. As a result, Beamon Community Secondary School served as an appropriate comparative sample for the purposes of this study.

As discussed in Chapter 3, the process of collecting data in the case study sample included document review, observation, and interviews. I reviewed documents that included professional development plans and supporting documents, meeting agendas, and materials used by participants in AIW activities throughout and after implementation. As was the practice in the PAR study, I reviewed each document using a specific protocol that was based on the Framework of Essential Supports developed by Bryk et al. (2010) throughout the work I completed in the case study. Additionally, I participated in observations of professional development activities as well as AIW scoring meeting(s). In all, I observed three professional development sessions and one scoring meeting. The majority of the data collected in the Beamon Secondary School sample however was collected through interviews. In all, I conducted 18 interviews with a total of 17 participants.

Like the PAR component of the study, the case study produced a data set that was diverse in nature relative to those who experienced implementation of the framework at various points in time. In all, I conducted 18 interviews with a total of 17 participants. There were six individuals who served directly on the team tasked with implementation of AIW, called the Pilot Team. These included the principal, curriculum director, and instructional coach at the time of implementation as well as the current principal and instructional coach. I also interviewed a consultant from the AIW Institute, Dr. Samantha Lawrence who supported Beamon Community Secondary School at the time of implementation of AIW. In addition to the six key individuals

who directly contributed to the implementation and development of AIW in Beamon Community Secondary School, I interviewed 11 other staff members. Of the 11 staff members, four served as AIW Pilot Team members. As members of the Pilot Team, they spent a year studying AIW implementation in other school districts and engaged in AIW training prior to implementation in Beamon Community Secondary School. Of the four Pilot Team members, one was an English teacher, one was a Social Studies teacher, one was a Math teacher, and one was a Science teacher. Of those that I interviewed who were not members of the Pilot Team, two were new to Beamon Community Secondary School, one of which was new to teaching. The remainder of those that I interviewed were in the district for at least five years. There were two English teachers, two Math teachers, a TAG teacher, a Science teacher and a Special Education teacher.

After collecting and reviewing the data from Beamon Community Secondary School and Rock Valley Middle School, four general themes emerged. Those themes are: (1) dedication of resources, (2) flexibility in framework implementation, (3) established culture of feedback, and (4) instructional leadership. Included in the findings for Beamon Community Secondary School will be data collected primarily from interviews but also from documents and observations. Chapter 6 will provide comparisons of the two cases, Rock Valley Middle School and Beamon Community Secondary School, and conclusions drawn from the findings from each.

Dedication of Resources

Like Rock Valley Middle School, Beamon Community Secondary School's AIW implementation began with a clear dedication of resources. It became clear through a series of interviews that the leadership and staff at Beamon Community Secondary School credited the resources dedicated to AIW professional development as one of the primary causes for

successful implementation of the framework. The resources were pivotal in developing powerful learning experiences for students.

At Beamon Community Secondary School, there was a substantial investment of financial resources devoted to successful implementation of AIW. Additionally, the dedication of human resources to implementation was substantial through the training of Pilot Teams. As each of these emerged as themes in the research, it became clear that the leadership of Beamon Community Secondary School chose to invest exclusively in AIW and avoided simultaneous investment in competing initiatives. This provided clear direction and focus for staff as the leadership intentionally created the conditions for successful implementation. There was a substantial investment in resources in Beamon Community Secondary Schools serving as a firm foundation for initial implementation of the AIW framework and the corresponding professional development process.

A unique feature of Beamon's implementation was the dedication of financial resources to implementation of the AIW framework. The dedication of financial resources proved unique because the financial commitment was not provided by the district, but by a local, community educational foundation. The foundation was referenced across multiple interviews and was a clear indication of the commitment on the part of the Beamon community at large to support powerful learning experiences for its students. The instructional coach in Beamon shared that "We had three years worth of money allotted for implementation of AIW from the people that are paying for our PD. We had a local foundation that was helping us pay for that." The associate principal commented that "Having that foundation is a luxury for us when it comes to implementing new ideas in our schools. They want to support anything that is going to help kids. We were lucky that they took interest in supporting our AIW work." A math teacher reiterated

the importance of the support of the local foundation: “We also had the privilege to have it funded outside of the district. Without it, I don't know if it would have happened if we didn't have that funding. But we're able to jump in and immediately get well-executed training.” In eight of the 18 interviews, participants referenced the support of the community foundation as a pivotal component of implementation efforts. These references included those who served in leadership positions to those who simply participated in implementation in classrooms. The commitment of the community foundation signaled to the staff that AIW was an important component of Beamon Community Secondary School's strategy and commitment to creating powerful learning experiences for students.

Another foundational component that proved to be significant in Beamon was the dedication of time to allow staff members to fully engage in the framework. The success of implementation was often attributed to the investment made in pilot teams well before engaging the entire staff in implementation efforts. Across multiple interviews Pilot Team members referenced the investment made prior to full implementation. A Beamon Community Secondary School Pilot Team member commented that the principal at the time of implementation, Principal Mark, required them to invest in significant training, commenting that

by doing that (requiring training) he made it such a priority. AIW was so important that he needed you to stop teaching for two [periods] (in order to focus solely on training on the AIW framework) because he needed you to learn how to do this so we could implement it with staff.

To accommodate this, Principal Mark carved time out of the instructional day, supplied the Pilot Teams with substitute teachers no less than one time per month, and invited Dr. Lawrence into

the building to fully engage in AIW. Figure 7 provides perspective on the amount of time invested in these Pilot Teams.

Figure 7: *Beamon Community School District AIW Pilot Team Training Outline*

AIW Dates	
Pilot Team Trainings: (paid for these initial two days, \$25/hr)	
Monday, August 6 8:00-3:00 Location TBD	
Tuesday, August 7 8:00-3:00 Location TBD	
Wednesday PD: Meet with ALL staff 7:50-8:50, then pilot teams will spend a ½ day with (AIW trainers)	
September 19—AM: 2—PM: 1	
October 17—AM: 1—PM: 2	
November 28—AM: 2—PM: 1	
December 19—AM: 1—PM: 2	
Full Day, whole staff roll out:	
January 11	
Google Hangout Dates: (AIW Institute) will meet with 2 teams per hangout day. Schedule will be built for this	
January 16, 23, 30	
February 6, 13, 20	
March 6, 13, 27	
April 17, 24	
May 1	
Pilot Team 1	Pilot Team 2 Interested in Coaching Training 2019-20
Jamie	Marc
Erik	Joe
Tim	Gabe
Nicole H	Allison
Dan, said alternate	Abby
Marcia	Ben
Kate	Ryan (replaced in 2019-20 with Nate)
Coaches: Gabe, Kate, Allison, Nicole & Abby (leaving district)	

Giving people the time to focus on just learning [the AIW structure] made it feel so important.”

Principal Mark affirmed this sentiment in a subsequent interview when he indicated that

we did a whole bunch of training upfront, before we even rolled it out and to be honest with you, I just brought in this initiative and got the right people on board and got out of the way. That's what I did. I had people that really were strong leaders and I just had to carve out the time.

A member of the Pilot Team that was provided the opportunity to engage in the training explained the importance of the initial investment in training staff:

I was a part of the group that went to (a neighboring district) and we got to sit through a scoring session. While we were there, they were scoring tasks and then there was a good

buzz on the way home. When we were riding home people really thought that (the AIW process) was a great process that would be something that would be good for us to start looking at.

The concept of time as a resource was echoed across multiple interviews in Beamon Community Secondary School.

The initial investment of time and personnel to the understanding of the AIW process prior to implementing it with the entire staff in Beamon was impactful. Equally impactful was the time later provided to staff to fully engage in AIW professional development practices in their immediate context. Staff members explained a robust time allotment to professional development. Beamon Community Secondary School's instructional coach explained the school's weekly dedication of 90 minutes to professional development activities. She explained: "We actually have time set aside each week for our development. We used all of our time to work through the AIW process. We've been pretty good about keeping that time sacred for AIW." The consultant from the AIW Institute cited this allocation of time as a primary driver of AIW implementation:

I've only had one bad experience bringing a system into AIW and it's because they didn't delegate time to AIW. That district's administration said they wanted AIW, but never gave them the time to do it. They just did not have that administrative support. In Beamon, they built in (professional development) time. And so I knew that even when I wasn't there supporting them, they were working on AIW. There was accountability built in.

The time and accountability in Beamon fostered greater productivity, collaboration among staff, and vulnerability to examine more deeply practices aimed at creating powerful learning experiences for students.

Importantly, those leading the implementation of AIW in Beamon dedicated their work to develop their staff exclusively to AIW. They expressed their belief in the impact of AIW on creating powerful learning experiences for students by avoiding the introduction of competing initiatives that might detract from the work of AIW professional development. One teacher expressed his appreciation for the commitment to AIW stating: “We had whole days set aside that we will work with Dr. Lawrence on just learning how to practice and implement and use AIW in a productive way.” The instructional coach commented that “We really haven’t put an emphasis on other initiatives allowing for the focus to remain on AIW even though there are plenty of other things we’d like to do.”

Flexibility in Framework Implementation

The AIW framework provides a model for professional development to infuse powerful learning experiences into classrooms for all students. My investigation in Beamon indicated that for an instructional framework to be effectively implemented in its schools, flexibility to adjust it was an important consideration. The leadership and staff at Beamon Community Secondary School recognized the need to adjust the framework in two meaningful ways. I found that the willingness to invest in the framework on the part of the staff was a result of the flexibility to adjust the framework to meet the needs of students and staff in all content areas. Additionally, I found that beyond initial implementation, the staff recognized a need to adjust the AIW process to meet the needs of their specific school context. These adjustments served to support

implementation while simultaneously providing a source of frustration for staff who hoped to extend the framework's process beyond initial implementation.

My interviews with the staff at Beamon Community Secondary School revealed a commitment to the AIW professional development process across grade levels and content areas. Of note was their perspective on the inclusivity of the framework. An AIW Pilot Team member expressed this sentiment stating: "I think the biggest foundation of it was that it was for everybody. It wasn't Science specific. It wasn't Math specific. It wasn't English specific. It was that all of our kids can do it. Everybody has something to say about it." The district's curriculum director, Director James, at the time of implementation reiterated:

It hit every content area. You couldn't say, okay, this doesn't work for me. Yes, it does.

Higher order thinking in any content area is a good thing. Getting kids to evaluate work or synthesizing information or analyzing, it's all good work. You can do that in music.

You can do that in art. It'll look different. So we didn't have any grumpy staff members who could sit in the back of the group and say: 'you guys are doing math instruction' or 'we're physical education teachers, it doesn't fit for us!' It also helped that the simplicity of the task-scoring process was not hard for people. Everyone could do this and it could work in any classroom.

Though the inclusivity of the AIW framework proved beneficial for the staff of Beamon Community Secondary School, after the initial implementation, the inclusive nature of it proved to be a challenge. In Beamon, AIW teams were created to embrace the cross-content inclusivity that staff found beneficial. However, as the professional development process evolved, some staff began to question the interdisciplinary nature of the teams. The school's instructional coach shared the challenges presented by the framework after initial implementation:

What we've found is that the majority of our staff who have been here for awhile and have been doing AIW for awhile, when they put together a task they didn't need to get it scored through the AIW process because they were already looking at it through the AIW lens. And so when they're creating a new task or lesson or even just revising one of your old ones, it's becoming very obvious as to what's going to score high and what isn't on the AIW criteria. So people really wanted to shy away from mixed content groupings. They really wanted to break off into more like-minded groups in their specific content areas.

The inclusivity of the framework presented initial benefits through the professional development process. As staff began to intuitively consider the tenets of AIW that create powerful learning experiences for students, they expressed a desire to evolve the framework as their circumstances changed.

My collection of data revealed that the evolution of AIW implementation in Beamon tested the flexibility of the framework. An English teacher who had been teaching at Beamon Community Secondary School for four years articulated the need she recognized for flexibility of the framework:

What I like is the flexibility of AIW. AIW can kind of merge and form itself to whatever it needs to be. And that's something that's really appealing for I think a lot of school districts but especially ours where we have people who want to do better for their students. AIW gives you parameters but not so narrow. Sometimes frameworks are so narrow, that you are closed in and you have to do things a certain way. Our staff just wants to be more flexible.

My interviews revealed that it was this desire for flexibility and growth that allowed Beamon to successfully adopt the AIW framework. In general, I found a strong desire for more meaningful professional development. I will cover this topic in more detail later. Importantly, according to this same English teacher, she characterized the early implementation stages indicating: “We had flexibility with AIW, but not so much that we didn’t know what we were supposed to do every day in our classrooms and in our scoring meetings. There was clarity and our expectations were clear.” It became evident that once the Beamon staff adopted the principles of AIW in their classrooms, they had a strong desire for flexibility to evolve the framework.

This perspective was shared by the current Beamon Community Secondary School principal, Principal Susan. Principal Susan was not a member of the Beamon staff at the time of initial AIW implementation. She served as principal in two other districts that successfully adopted AIW and was tasked with continuing to grow the AIW framework at Beamon. She shared:

We’ve been doing AIW for a while now and I think we need to shift. I think we need to consider evaluating student work more closely, or instruction more closely. Until now, we’ve had the greatest success in evaluating teacher tasks. It’s time to juice it up a little. Because if we’re really doing things through an AIW lens, we’re not seeing tremendous student growth. And so we need to take it and build something that fits our staff and tie the framework to teacher goals. Because that’s what I love about AIW. It can be personalized to each teacher. Now that we know what the AIW process can do for the student experience, we need to personalize it to each teacher.

Each interview revealed a continuing commitment to the AIW framework and its ability to create powerful learning experiences for students. However, using the flexibility of the framework to

deliver those experiences to more classrooms was a continued priority I learned about in each interview.

In Beamon, the staff explained that, in recent years, Beamon Community Schools was experiencing uncharacteristic staff turnover. Historically, Beamon had a stable staff. When presented with the AIW framework, the leadership and staff were aware that they could implement the processes consistently given the commitment of their stable staff. The recent staff turnover posed problems for implementation and further challenged the leadership to adjust their implementation of the AIW framework. Curriculum Director James articulated these challenges in an interview:

And along the way, we seem to add four or five new staff people. So it's always that constant battle of trying to keep AIW rolling while also bringing in some new people that don't understand anything. We tried to adjust our (professional development) along the way a little bit to address the needs of our new people. They would sit in on scoring meetings, but they would never evaluate instruction in that first year, or student work in that first year. It was hard to keep it rolling while going back to the start with new teachers at the same time.

To address this challenge, the leadership leveraged the work of the AIW Institute consultant, Dr. Samantha Lawrence. A teacher who was subject to this new model of AIW recognized the difficulty:

Dr. Lawrence was trying to help us bridge the gap. How can we keep those core skills and bring them into our entire unit design instead of just a single task that we use in scoring meetings? So we began to translate some of the language from AIW to the work we were doing as a staff in full unit design. I think Dr. Lawrence was really helping us to

bridge those gaps because we were starting to lose some of that AIW language since our new people weren't getting the same professional development.

This challenge to remain committed to the AIW language, while evolving the approach professional development was one that the instructional coach also recognized:

We were getting to the point where everything was scoring high on AIW rubrics. People really knew how to write good tasks that would score high against the AIW criteria.

They'd been through that for a couple years. We had to find a next logical step in design.

We tried bundling tasks, with student work, with instruction and staff would meet with AIW teams three weeks in a row to evaluate all three. But the staff really wanted to get more into unit design. We came up with a few ideas to evolve the framework. We just can't agree on what that is right now.

A member of the Pilot Team echoed these sentiments:

Well, I think it started because people started groaning about the process. They asked:

'Are we just gonna score another AIW task?' So we were trying to think of a way that we could take AIW and get beyond just doing the same thing that we had been doing for a couple years. And one of the conversations that we had with Pilot Teams was to ask:

'What does this all mean? What's the whole point of AIW other than to fix teacher tasks and do a little better job teaching?' Dr. Lawrence talked about how philosophically the idea would be to have your entire unit, you know, looked at in this way and all of your classes would reach higher levels of content and communication. The overall goal would be to create AIW learning in all classrooms all the time.

There was certainly some disagreement in Beamon about the way the framework would evolve.

Discussions surrounding the evolution of the framework developed only after a strong

implementation and recognition of the flexibility of the framework to extend powerful learning experiences to more students in more classrooms.

Established Culture of Feedback

The Beamon Community Secondary School made the intentional decision to address the student learning experience by establishing a clear instructional guidance system. In doing so, the leadership made a strategic investment, through AIW implementation, to develop a culture in which feedback among staff that directly addresses the elements of powerful learning experiences in classrooms, would become a priority. Recall that based on the work of Bryk et al. (2010), at the center of improvement in schools is the instructional guidance system beginning with an instructional framework that fosters the development of a high-quality instructional core promoting powerful learning experiences for students. Beamon Community Secondary School relied solely on the AIW framework as its instructional guidance system while failing to address in any meaningful way, curricular frameworks and student assessment of learning outcomes. Through my interviews, it became clear that the sole priority of the leadership teams in Beamon was to develop systems that created space for openness and vulnerability to feedback around instruction, even in the absence of clear curricular guidance or outcome measures.

While seeking to understand the foundational curriculum and assessment practices in Beamon, I found an incoherent set of expectations for staff to address content and learning outcomes in their classrooms. I asked the current Beamon principal, Principal Susan: “Is it fair to say that you just don’t have a curricular guidance system in place?” She responded by saying:

Yes, very much so. And this is where I'm getting some pushback. So we don't know our curricular priorities. Like, I'll ask everybody, what are your priorities, what are your learning targets? They just don’t always know. We don’t really have much for research-

based curriculum. Everyone just kind of does their own thing. I've been pushing for some vertical alignment discussions where everyone can get together and talk about their standards. I just haven't seen that in my time here.

Though I found there to be an incoherent curricular guidance system, I found that Beamon Community Secondary School had a penchant for professional growth. Principal Mark, the principal at the time of Beamon's initial AIW implementation echoed this sentiment: "But Beamon just had that uniqueness that people wanted to learn and they wanted to get better. If I tried to roll out AIW in my district, now I wouldn't be able to do it." The talented and gifted teacher at Beamon Community Secondary School, who recently began working in Beamon, indicated in my interview with her that the professional development structure was a key selling point in prompting her to leave her old school and begin teaching in Beamon. The desire for professional learning was a unique finding in Beamon.

As a result, the conditions existed in Beamon for the development of a system to create space for vulnerability among staff. An English teacher that I interviewed shared:

So I think that when we first implemented AIW I don't know if it was just our leaders constantly saying: 'You can always get better. Every single thing that you teach, you can make it better.' They always told us to bring our worst lessons to the AIW meetings because it was a no judgment zone.

It was clear from my interviews, that those tasked with implementing the AIW framework were dedicated to creating systems where staff feedback would flourish. The Beamon Community Secondary School instructional coach shared that the culture of feedback was not one that always existed in Beamon. However, as a result of the staff's desire for growth and the leadership's

insistence that feedback was vital, they eventually created that culture. After asking the instructional coach about the culture of feedback and vulnerability, she shared:

I think overall, it's a lot better, but I think that came from the work we did on instructional tasks. They were forced to bring in tasks and be vulnerable. That was difficult. Now, they bring what they bring, and they don't care if the feedback is critical. In the beginning there was some vulnerability. At the same time, it was very much stressed, don't bring your best lessons and our staff trusted Principal Mark because they really wanted to grow. He told them if you're not willing to change it, don't bring it.

A special education teacher who joined the Beamon Community Secondary School staff one year into their AIW implementation recognized the culture of feedback that existed and how the staff invested in it. She shared:

Even though it (willingness to hear feedback) was already there, AIW definitely opened the door to bring lessons that would get good feedback. But it was up to me to show them that and I trusted them. What I found was that it helped my colleagues better understand what goes on in my special education classroom because they didn't always know. I literally had three colleagues that were like 'Wow, thank you so much for doing that' when they found out what I was doing with my kids.

Finally, a Social Studies teacher who served as a Pilot Team member commented:

I think the AIW process really strengthened the bonds among us because you saw what, that teachers sees and then they gave them feedback. You know, it was like, this is good, we should try this one little thing. The feedback was always constructive. The staff did a good job of giving positive feedback and encouraging feedback, in addition to critical

feedback like: ‘Hey, you should try this, or you should do this or you should tweak it this way.’ Sometimes they would even give these grand ideas.

Reflective of this desire for feedback, was the collective staff reflection on where they stood relative to the AIW implementation process as a whole. Figure 8 is an example of a portion of a rubric used by the Pilot Team to reflect on the process of implementation. These rubrics provided for reflection on (1) AIW Professional Development, (2) AIW Leadership, and (3) Data Analysis for Decision making.

Figure 8: *AIW Implementation Assessment - Pilot Team*

IC Map – Schools				Pilot Group Score
Component #1: Professional Development				
Outcome: An AIW school's educators participate in ongoing, in-depth professional learning through Authentic Intellectual Work.				
Full Implementation (3)	Implementation (2)	Low Implementation (1)	No Implementation (0)	
Teams meet regularly and score for 4–6 hours or more per month.	Teams meet 2–3 hours per month to score.	Teams meet bi-monthly to score.	Teams are not meeting regularly.	
Teams are comprised of 4–6 members who use the scoring criteria and Rules of Thumb with fidelity.	Teams are comprised of 4–6 members who do not use the scoring criteria with fidelity.	Teams are larger than 6 members and are not scoring with fidelity.	Teams are not established.	
Almost all of the staff is actively involved in AIW professional development.	50% of the staff is actively involved in AIW professional development.	Pilot team is actively involved and a plan for expansion is in place.	Pilot team is identified but has not begun scoring as a team.	
Trust, honesty, collegiality, and respect are evident within the group with the intent of improving planning, instruction, and student achievement.	AIW teams show respect while scoring artifacts with the intent of improving planning and instruction.	AIW teams understand that the intent is for the group to improve planning, instruction, and student work.	Staff has little knowledge of the characteristics of effective teams.	
Almost all AIW team members bring tasks in need of improvement to the team. Artifacts are scored, revised, and implemented.	Most AIW team members bring tasks in need of improvement to the team. Artifacts are scored and revised.	Many AIW team members bring tasks in need of improvement to the team. Artifacts are scored.	Most team members do not bring appropriate artifacts when scoring tasks, or choose to not bring tasks at all.	
Almost all AIW team members bring student work in need of improvement to the team. Student work is scored. Task or instruction is improved and implemented in the classroom.	Most AIW team members bring student work in need of improvement to the team. Student work is scored and task or instruction is impacted.	Many AIW team members bring student work in need of improvement to the team. Student work is scored.	Most team members do not bring appropriate artifacts when scoring student work, or choose to not bring student work at all.	
Almost all AIW team members bring their own instructional clips in need of improvement to the team. Artifacts are scored, revised, and implemented in the classroom.	Most AIW team members bring their own instructional clips in need of improvement to the team. Artifacts are scored and revised.	Many AIW team members bring their own instructional clips in need of improvement to the team. Artifacts are scored.	Most team members do not bring appropriate clips when scoring instruction, or choose to not bring instruction at all.	
Most staff members attend extended AIW learning opportunities (e.g., Midyear/Regional Collaboration, Local Coaches Institute, Coordinator's Academy, Next Steps Academy, Online Courses) and collaborate with teams from other districts.	Most staff members attend extended AIW learning opportunities.	Some staff members attend extended AIW learning opportunities.	Staff is not involved in extended AIW learning opportunities.	

In Beamon, I found that the conditions that promoted feedback related to enhancing classroom practices promoting powerful learning experiences were in place. Though these conditions existed even prior to AIW implementation, the leaders tasked with implementing the AIW framework further enhanced these structures by creating systems to do so.

Instructional Leadership

The leadership at Beamon Community Secondary School at the time of AIW implementation was characterized by a clear vision for learning while being distributed far

beyond the principal of the school. At the outset of implementation, I was able to observe that the staff in Beamon were clear about the vision for AIW implementation and the way in which the framework would shape the learning experiences of students. There was strong administrative leadership and equally strong teacher leadership. Each played a part in establishing a common language and expectations for a common experience for students in classrooms. Importantly, the leadership at Beamon Community Secondary School created clear accountability structures to ensure effective implementation of the AIW framework. Instructional leadership was a clear condition that promoted the implementation of the AIW framework. However, I learned that shifts in leadership adversely impacted the sustainability of the implementation efforts. When interviewing the AIW Institute consultant, Dr. Samantha Lawrence, she shared with me:

The biggest reason for AIW implementation to stop is a change in leadership. I think that schools that stayed strong and had principals, curriculum directors, superintendents, and instructional coaches that remained committed allowed for effective implementation. I could tell you the moment when AIW implementation stops by looking at change in leadership.

A change in leadership over time in Beamon brought into question the sustained implementation efforts of the AIW framework.

Across several interviews, I learned that the impetus for engaging the AIW Institute and adopting the AIW framework, was a professional learning process that was not serving the needs of Beamon Community Secondary School. Interviewees described a process that was provided by the state's educational agency that was disconnected from the priorities in Beamon and lacked coherence. A change in leadership in Beamon precipitated a renewed attention to the

professional development processes there. Specifically, a new principal, Principal Mark, along with a new curriculum director, Director James, helped to shift the process of not only professional development but of the vision for learning in general. Director James shared that when he arrived, “They were scrapping a bit for good professional development.” A Science teacher and Pilot Team member indicated that “Going through several years of really mediocre, bad, chaotic, professional development really led people to want to buy into a new vision for learning and professional development.” Another Pilot Team member shared that “previously we had done some professional development that was disjointed. So the AIW framework brought everything together in a way that everyone felt we could see where we're going, and we could see the benefit of it, and all of it makes sense.”

With an enthusiasm for a shift in professional development as the foundation for the work in Beamon, an English teacher shared the importance of a new vision for Beamon Community Secondary School that was ushered in by Principal Mark:

Principal Mark was very articulate about his vision. ‘This is what we're doing. This is why we're doing it. This is a map of how we're going to get to it.’ As a result, most staff members always felt that we had a clear path as to why we were doing what we were doing and how it was relevant and how it tied into classrooms. I think most members felt that because of Principal Mark’s and Director James’ vision, there was no confusion. It wasn’t hard to see because it was clearly articulated to us.

Another member of the Pilot Team repeated this sentiment:

Principal Mark had big ideas of what we should be doing going forward and he communicated that pretty well. He was a very organized guy and really laid everything out word for word what he wanted to say so it really connected our staff.

The visionary leadership extended beyond the work of Principal Mark and Director James. They made the intentional decision to support their vision with added expertise from the AIW Institute. When they invited the consultant to work with their staff in a full-time capacity, they brought added credibility to the framework and the corresponding professional development. One Pilot Team member shared “Dr. Lawrence was our administrative support because she was the expert on AIW.” Director James indicated that:

Dr. Samantha Lawrence was a wonderful educator, very passionate about student learning, and she really connected well with the staff. By the second time she was here, she knew everybody's name. She had a very good cadence to herself and had a very good approach to our staff and had a very good demeanor in front of our staff. I feel like if we had somebody else that we may have not connected as well.

In Beamon, the clearly articulated vision for learning and development created the conditions for successful adoption among the staff members tasked with carrying out the vision for powerful learning in classrooms.

Principal Mark and Director James made the clear strategic decision to develop staff members as leaders who would further carry out their vision for learning. They invested in building the collective capacity for teacher leadership by choosing a Pilot Team of teachers who dedicated a year to learning about AIW. They visited districts who had successfully implemented AIW and worked closely with the consultant from the AIW Institute to develop a process for implementation that would engage all staff members. This was an important discovery in the data collection process. One Pilot Team member shared:

The pilot group for AIW was large and we, most importantly, him (Principal Mark) picked important stakeholders to serve on the leadership team. He was a stickler about

professional development. There were important people on that group that were picked correctly and that group drove the implementation in the building.

An English teacher who experienced this process in its initial stages indicated:

I think we had such a strong initial Pilot Team. They were strong and every single one is still here. Those were core members who have been here for 15 or 20 years. They were spearheads of the AIW campaign. And so, while Principal Mark and Director James were here, they walked alongside us, but they also gave the space to go talk to one of those members. So we had leadership from all facets that created a really safe environment. One where you could take risks you could apply and you could do these things and it was all part of a clear path. And I think that judgment free zone was important.

This very intentional decision led to a robust investment in teacher leadership creating conditions for successful implementation of the AIW framework.

I learned that the collaborative efforts on behalf of the Principal Mark and Director James with their teachers was one of the primary reasons for a successful implementation of the framework. A Pilot Team member concurred. He stated: “We got a lot of buy-in early on. Nobody was really reluctant or hesitant to do it. Because we framed it in a way that this was going to make your teaching better.” Later in the same interview, he shared that “We already had 14 people that bought into the framework. They’ve already spent a year training. So when we rolled out to the staff they responded and were interested because they thought ‘This is what they've been doing. And this is why we like it.’”

Eventually, Principal Mark moved on to a principalship in a neighboring district. Director James shared with me that he was tasked with leading the interview team for the new principal. As a further testament to the teacher leadership in Beamon specifically around the AIW

framework, Director James shared how the importance of AIW became an important condition of hire for the new principal. According to Director James:

But I will tell you when we interviewed for that job there were several interview questions that revolved around the AIW framework and their plans for professional development. So the staff that helped us create those questions still very much viewed AIW in a positive light. They didn't want it to go away. All the questions were phrased that way.

When Principal Susan became the principal of Beamon Community Secondary School, she inherited the established AIW framework. She quickly noted that implementation efforts had been successful, and one reason she shared was the investment of the Pilot Team comprised of teaching staff. She noted:

I thought everybody did such a really good job about working together and looking over the work and scoring and having those great discussions led by the Pilot Team. That was my first year. I was super impressed, and I loved it. And it was just like okay, this is awesome because the teachers really own this.

Appendix K includes a sample AIW task analysis cover sheet that was used by Beamon Community Secondary School AIW teams to score work. Of note, are the elements of inquiry, inherent to the AIW framework that are included in this instructional task.

The instructional vision forged by the collaborative partnership between the principal and Pilot Team of teachers was an important condition that existed allowing for successful implementation of the AIW framework. This important condition worked in conjunction with the leadership and the staff's desire to create a common instructional language. Indicative of their commitment to professional growth, the staff supported the conditions that gave rise to a

common instructional language. A Pilot Team member shared that staff expressed a desire to adopt AIW in their classrooms because of “the fact that it was grounded in so much research. It had a very clear rubrics and guiding documents. It very clearly laid out a process. It was a very stepwise procedure. That helped the staff create a common language.” Figure 9 is an example of a document used to guide the AIW process.

Figure 9: *Beamon Community Secondary School AIW Scoring Procedures*

Community School District

Authentic Intellectual Work

Moderator Sheet: Student Work

1. Draw a scoring grid on a whiteboard. Paper will work if no whiteboard available.
2. Ask presenting teacher to go over their cover sheet and explain their selection process of the student work the group will be scoring.
3. Ask colleagues if they have any questions. Be sure the following questions are answered before moving on:
 - a. *Do you want the whole artifact scored or just certain parts?*
 - b. *Is there a particular AIW standard or standards you are most interested in having students meet at a high level?*
 - c. *Are you willing to change the task?*
4. Have everyone silently score the student work and write their scores on the board, remaining quiet until everyone has finished scoring.
5. Once all scores are on the board, circle the highest and lowest for each category (try not to have the same people talk more than once) to let people know who will share their reasoning.
6. Have colleagues go over their reasoning, pulling evidence from the student work or the rubric, and allow others to share theirs as well. Then ask if there is anything else. IF there is a category with a 1 and a 3 in the same column, DO NOT move forward until one of them turns into a 2.
7. Have colleagues discuss insights and possible changes to the task that lead to the student work shared if the presenting teacher indicates they are open to recommendations from the group.
8. Ask the presenting teacher if they have received enough feedback or if they had any questions.
9. Conclude the session with the presenting teacher summarizing what he/she might change after the discussion.

A Social Studies teacher gave voice to the conditions that led to the development of the common instructional language:

Every assignment, every lesson that I create, I now think about the same thing. I think:

‘Where is the construction of knowledge? Where is there substantive conversation?

What am I asking students to produce? Where's the value beyond school for every

lesson?’ That’s just how we started thinking after going through the process of learning the language.

Indicative of the conditions that were established at Beamon Community Secondary School, a teacher in her first year commented that “the AIW task work was very beneficial to me as a new teacher because I understood what needs to be included in every lesson; construction of knowledge, elaborated communication, and value beyond school. Those concepts are stuck on my brain.” I found that the work of the leadership and staff of Beamon Community Secondary School created conditions that prioritized a common instructional language for the staff who served students in classrooms.

Ultimately, the instructional leadership created conditions for teachers to create a common instructional experience for students in all classrooms. As one Science teacher noted:

I was working toward authenticity. Plain and simple. Was the work that the students were doing going to be meaningful and would it reach outside of the school and not just be content based? And that wasn't something Principal Mark ever said, but something that I wanted to do for my students.

The same Science teacher shared that this work inspired him to think through each lesson with the AIW experience in mind. He said:

Until you actually are going through the lessons and scoring the tasks, you don’t really know what you’re looking for in classrooms. After a while, when I started making new tasks using AIW without really thinking about it, I realized, ‘Oh wow that worked!’

This sentiment was shared by each teacher with whom I spoke; that they prioritized authenticity in their classroom as a result of their AIW work. Of note, were the thoughts of a special education teacher that I interviewed. She shared that the nature of her work brings her to many

different classrooms to support her caseload of students and thus, she is able to observe instruction in many different spaces. She has shared that the level of authenticity in learning she sees across the classrooms is not common. As a recently hired teacher in Beamon, she shared her perspective using a lens that extends beyond Beamon. Notably, she shared that she's "noticed this transition (to authenticity) in math especially. I think AIW is really hard in math. There's just so much paper and writing. But here, I've seen way more applying their math to the real world." Through the process of interviewing, I learned that staff members in Beamon Community Secondary School, as a result of a clear instructional vision, were committed to creating conditions for common powerful learning experiences for all students.

Common language and a commitment to common powerful learning experiences were a product of the instructional vision of the leaders at Beamon Community Secondary School. In addition, I found that accountability structures that were established there fostered successful implementation of the AIW framework. On the one hand, staff members expressed a commitment to their leaders, Principal Mark and Director James. One English teacher noted:

I was blessed. I was lucky. I had a lot of Pilot Team members in my group. Also, Director James was in my group. Try having the curriculum director in your room all the time! So I felt like our group was really focused. Director James held us highly accountable all the time. And I also had a couple other better staff members on my team. I think that really benefited me in AIW because I learned from the people who implemented it in the first place.

An English teacher gave voice to the accountability structures that emerged. Importantly, the accountability she experienced was to the leaders who helped to create a clear instructional vision for the staff. She indicated:

Principal Mark created this environment where, even though it was challenging and frustrating sometimes learning through it, the emphasis was: this is what we're doing because it's gonna make you a better teacher and that's what we're here for. And he held you accountable. Principal Mark was very much a person who never dropped the ball. We joked that he was maybe part robot. But I very much felt like 'Oh my gosh, I really need to step up my game because Principal Mark has this expectation.'

Figure 10 is an example meeting agenda developed by Principal Mark. Notably, the events of this session were clearly tied to the AIW framework and focused on the work necessary to adhere to the professional development process within it.

Figure 10: *Beamon Community Secondary School AIW Professional Development Agenda*

January 11, Secondary Staff Media Center 8:00-2:30 11:30-12:30 Lunch - On your own	
<i>Bring: AIW Scoring Guide; Laptop/Tablet; Writing Utensil; Lunch or plans for lunch</i>	
8:00-8:15	Welcome; Plans for the day
8:15	Why are we here? AIW and Wilton Newmann and the WHY for authentic work . . . Research Framework
8:30	Teaming
8:45	Descriptive vs Evaluative
9:00	Review the Task Standards
9:15	Review Unpacking
9:30	Break
9:45	Scoring and Rationale for scoring Score a Task Together
11:20	Reflection
11:30	Lunch -- On your own
12:30	Score Task 1 (provided by pilot team member)
1:25	Score Task 2 (provided by pilot team member)
2:20	Scheduling and Closing

The talented and gifted teacher succinctly expressed the importance of accountability for classroom practices that create powerful learning experiences for students. Recall, the talented and gifted teacher recently joined the Beamon staff largely because of the robust process of professional development. She observed with appreciation, the accountability and the outcomes it produced. She shared:

You have to have buy in. You have to hold to fidelity of the framework. You have to have that accountability. And when those things aren't in place, you don't have a good system. So that's what it comes down to leadership, implementation and people in general, and I saw that here.

The accountability to the AIW process and practices started with accountability to the leaders of Beamon Community Secondary School. Importantly, the accountability shifted to an accountability to colleagues who worked alongside one another to create powerful learning experiences. When I interviewed the instructional coach, I asked her opinion on the accountability measures that were in place to ensure the AIW framework reached the work of teachers in classrooms. She shared:

The accountability kind of comes from peers. You asked me about that quite a bit and just different ways that our administrators make this all work? And I think really if you're not doing it, the staff hold you accountable. We have some teachers that were not bringing their best work a few years ago and the membership group kind of called them out on that.

An English teacher echoed this sentiment sharing:

And when I was presenting to my group, even though they told us to bring our worst lessons and that it doesn't matter what you actually score on the AIW rubrics. There was very much a sense of you need to be growing through this process. And I remember feeling really enthusiastic about it and wanting to take the content from my group and implement it and become a better teacher.

Extending the idea that there existed significant peer-to-peer accountability, the instructional coach observed that:

Teachers here are always wanting to try to improve student achievement within their classrooms. It isn't me going to them and saying okay, your scores are terrible and you need to improve. They come to me a lot through coaching cycles. I coach almost all of them. I think, basically all my coaching cycles are generated by the teachers and they come to me for help. I don't have to go to them. They come to me and say I'm interested in this topic and I want to see this result. AIW has kind of helped this process to be very teacher driven. Not principal driven and not me (instructional coach) driven. But they come to me for things that would fall under that umbrella of AIW and I think that is a result of the vision that was established here long ago.

At Beamon Community Secondary School, the successful AIW implementation began with a clear instructional vision. The vision of strong leaders in Principal Mark and Director James created conditions that established a common instructional language and common experiences for students across classrooms. While the vision began with the leaders, those leaders intentionally invested in staff members who could carry out their vision and create conditions for staff members to invest in the work. As a result, staff were accountable to the vision and one another to create powerful learning experiences for students across all classrooms in Beamon.

Challenges and Next Steps

Beamon Community Secondary School experienced success in its implementation process. I discovered through the interview process nearly universal commitment to the process of scoring instructional tasks presented by teachers. All were clear about the process and the growth in powerful learning experiences brought about by AIW work. Generally, the work in Beamon encountered roadblocks after initial implementation. When called upon to elevate the AIW process beyond the simple scoring of teacher tasks, leadership at Beamon was conflicted

about its next steps. Director James described this challenge as it related to both AIW procedures and staff willingness to elevate feedback to another level. He shared:

And then we started to dabble in instruction. Obviously, a lot more challenging.

Recording videos was a challenge just making sure your recordings are correct and so that the instruction proved to be a lot more of a challenge for us to get good quality video, and then to get that good 10-minute segment for scoring. And then to teach people how to do the scoring sheet, to write down time and write down the question and then write down your interchanges, you know, to get to a substantive conversation. So that proved to be a lot more challenging. And I feel like that kind of put the brakes on a little bit for people. It was just like oh, wow, the task scoring is easy. This level of work is harder and it's a lot more personal. When we did tasks, I get this as my paper with my task on it. But now you're watching me teach in front of kids.

Across multiple interviews, staff members articulated a struggle to find consensus on next steps to the AIW process. Some suggested, as previously noted, that applying the AIW framework to full unit plans would be of benefit to students while others suggested addressing the level of coherence in content areas from one lesson to the next using AIW principles as the guide for this work. Staff referred to this as the process of creating “instructional stories” intended to connect one lesson to subsequent lessons with AIW as the guide. At the time of the study, there was not a clear direction for moving the AIW framework forward beyond the initial scoring meetings. This proved to be a challenge to the success of initial implementation. The current curriculum director shared that they lacked agreement on next steps:

After a while, most of our veteran teachers knew how to write a good task. We've been through this for a few years. And so we felt our next logical step was in unit design. The

problem was that our current teachers came up with another idea to move forward and they really felt their model was really research based and had been done in other districts. We also were transitioning to a new curriculum director and that was hard. But another teacher worked on something with Dr. Lawrence called a storyline. It was intended to be like the storyline for your class. We asked teachers to write the storyline for their class. Where do you start? Where do you end up? And what's in the middle? But do I start what I want to end up? And a lot of the newer teachers picked up on it just fine. There were some veterans that didn't like it and they wanted to do add the storyline to the unit plan idea they had. It was really confusing and we really struggled to move on from scoring tasks.

Another teacher gave voice to this:

Now we're moving into what we call unit planning. We're kinda learning as we're going on that right now. It's like they learned how to play basketball in the middle of our game. I think that's maybe where we're at right now with it. So when I think of AIW, I think of what we used to do. And I think now we're trying to blend the hints of AIW with something that the state wants us to do. So I think that's getting a little confusing

Yet another challenge was the lack of a clear curricular framework. Recall that this concept was used as a criterion for selection of the Beamon sample. While Dr. Samantha Lawrence of the AIW Institute indicated a strong curricular guidance system, many staff members at Beamon Community Secondary School expressed wonder regarding a dedicated curricular framework for their content areas. Of those that expressed their confusion was a Science teacher, a Math teacher, an English teacher, a Social Studies teacher, and the current building principal. I learned from one English teacher that "It's a very autonomous building.

We're not told anything about our curriculum. We are just asked to make our own. So there's no real guiding curriculum. There's no guidance on what I'm supposed to teach." Absent a clear curricular guidance system, the difficulty in assessing impact of the framework on student learning in specific contexts was apparent.

Finally and most significantly, transitions in leadership and in staff proved to be a challenge. Most staff members interviewed expressed a lack of confidence in the current building principal to move the work of AIW forward due to a lack of a clear vision or investment in instructional approaches. One teacher shared that

Many staff members always felt that we always had a clear path to understand what we're doing, how it was relevant and how it ties into our classroom. I think most members felt that when Principal Mark and Director James were here there was no confusion. Now, there's just a lack of vision. It's so hard to see the big picture because it's not been articulated to us. We just don't know how our next steps are being bridged. And so it's just kind of floating. You trust that someone's going to steer the ship But our ship is just sitting here waiting for takeoff. And that really has been since our leadership changed.

Some shared that the presence of leadership in classrooms leads to a lack of understanding for what AIW practices may look like in the places where students learn. One teacher shared with me that "I don't think I've ever had someone walk into this room and watch me teach." This was echoed across several interviews when asked about the current leadership. Further, a lack of clarity around the role of Pilot Team members and their contributions to advancing the framework was noted as a deficiency with a change in principal leadership. Though the AIW was clearly a part of the interview process when choosing the current principal, staff and former

building leaders acknowledged that the change in leadership left many wondering about next steps to progress toward advancing the AIW framework.

In addition to the change in leadership, staff members articulated that the training of staff new to Beamon in AIW practices was a diminished experience compared to those that were trained initially. This left a chasm in the staff. Some staff members shared frustration regarding their inability to advance the framework while other new staff were left feeling unfulfilled with the training they received in it. It should be noted that the new staff members who were interviewed expressed enthusiasm for the AIW framework and implementing it in their classrooms. However, they acknowledged that they often felt left behind given the diminished onboarding process. Director James indicated:

We are always going to have a new group that's coming in. Then we have to figure out how do we meld that new group with that group that's now year two in with the others. That's been one of the challenges of AIW. It's it's great if all the 30 staff stays together for that entire course of those three years and nobody changes in that timeframe, and everybody can get through that. But every time you bring somebody new on it, just I feel like it loses some of that energy.

A clear next step would be for Beamon Community Secondary School to develop a long-term plan for sustaining the AIW framework much as they did in the initial implementation phase. Recall, staff members and leaders alike praised the initial efforts in implementation and observed a clear vision for its implementation. Beamon Community Secondary School would be well-served to leverage the veteran staff leaders to develop a coherent plan for elevating the AIW framework and supporting next steps.

Given the uneven professional development for new staff members related to the AIW framework, the development of a formal mentoring process could be considered. A mentoring process will not only serve new staff members well, but can serve to engage veteran staff seeking a more significant re-investment in the AIW process. Additionally, as the initial implementation relied upon consultants from the AIW Institute, Beamon Community Secondary School would be well-served to develop a local expert who can provide similar guidance. Given the veteran presence and investment in AIW in Beamon, there exists capacity to develop a local expert who might serve as the leader of elevating the AIW framework.

Summary

The purpose of the Beamon Community Secondary School case study was to use a comparative approach to understand the conditions and practices that exist in schools that promote the successful implementation of instructional frameworks that promote powerful learning experiences for students. The case study revealed four themes. Though these four themes matched those of the PAR study as indicated in Chapter 3, the way in which I arrived at those themes was through a different set of circumstances I observed in Beamon versus Rock Valley.

The Beamon Community Secondary School, like Rock Valley, devoted significant resources to the implementation of the AIW framework. A community foundation located in Beamon was the primary benefactor in Beamon signaling a community investment in the experience of staff and students in their community school. Additionally, the leadership of Beamon committed to a significant use of human resources when preparing for implementation. This approach provided a more distributed approach to leading the implementation of AIW. Upon review of the data, it was the administration that provided the vision for instruction while

the teacher leaders in the form of Pilot Teams, led the implementation efforts. The administrative leaders intentionally removed barriers to implementation in the form of competing initiatives which supported a full focus on AIW professional development. In the end, the lack of a clear curricular guidance system however, threatened to stunt the advancement of AIW processes beyond implementation.

Like Rock Valley Middle School, the Beamon Community Secondary School implementation efforts thrived as a result of the flexibility of the AIW framework. Through my case study, I learned that the staff felt as though the AIW framework was successful in part because of its inclusivity. The AIW framework had entry points for teachers of any content area, a feature that was cited by many as a condition leading to its successful implementation.

Further, as AIW provides a framework for instructional guidance, the staff of Beamon Community Secondary School attributed the successful implementation to the manner in which the framework could be adjusted to meet the needs of the local school's context and even each individual classroom. While this served Beamon well through the early phases of implementation, the flexibility led to frustrations for staff when it came time to elevate the framework beyond initial implementation processes.

The Beamon Community Secondary School, prior to AIW implementation, possessed a culture that welcomed a deep investment in professional development. Faced with a previously chaotic approach to professional development, the staff of Beamon had a desire for meaningful professional development. With this as its foundation, the Beamon Community Secondary School leadership team leveraged the staff's desires to create processes and spaces where critical feedback around instruction was welcomed. This condition promoted a successful implementation of AIW according to those involved.

Finally, the Beamon Community Secondary School and its school and district leaders made a very intentional decision to develop strategy that created a layered approach to leadership with instructional staff serving a critical role in implementation and staff engagement. They invested not only in teacher leadership but accountability structures around AIW processes. These conditions promoted a strong implementation of the AIW framework.

CHAPTER 6: Conclusion

The previous two chapters detailed the themes that emerged from the research at Rock Valley Middle School and Beamon Community Secondary School. I examined data gathered through the process of Participatory Action Research (PAR) and associated inquiry cycles. Additionally, I analyzed data that emerged from interviews, documents, and observations to identify four main themes. The four themes led to a series of findings that are analyzed in this chapter relative to the research question posed at the outset of this study. Specifically, this chapter will connect the findings from the two samples to the literature examined in Chapter 2. It will also address the research questions and provide practical applications of the findings relative to the research questions. This chapter will also provide implications derived from the findings as well as detail limitations and suggestions for future study.

Review of Supporting Literature

Chapter 2 provided research literature that served to guide this inquiry. Specifically, my review of literature led me to address the following lines of inquiry:

- Instructional frameworks and the instructional core
- Instructional frameworks and the creation of powerful learning experiences
- Instructional frameworks and coherence
- Powerful learning experiences and equitable outcomes

This section will connect the research literature to the findings of the study of Rock Valley Middle School and Beamon Community Secondary School.

Instructional Frameworks and the Instructional Core. The research cited in Chapter 2 largely highlights the failure of reform efforts to address the core of instruction in schools. The instructional core is defined as the interaction of teachers and students with content (Elmore,

1996). The purpose of the discussion that follows will be to highlight the degree to which the cases included in this study addressed the instructional core at Rock Valley Middle School and Beamon Community Secondary School.

The literature reviewed for the purposes of this study indicates that school reform initiatives typically fail to address the instructional core. Recall, based on the review of the research, I asserted that to improve the instructional core, schools must change the way that teachers and students interact with each other and alter the nature of curriculum content. Importantly, Elmore (2006) noted that one aspect of the core cannot be changed without changing the others.

When considering this assertion relative to the data gathered for the purposes of this study, it cannot be stated with certainty that the efforts to implement the AIW framework in either of the cases studied fully addressed the instructional core. The data revealed that the interaction of teachers with students was changed as a result of AIW implementation by shifting instructional practices. In both cases, participants in the study cited examples of shifting instructional practices to embrace an approach based on student-inquiry. Teachers noted that, through a prescriptive process of giving and receiving feedback on instructional tasks, they were able to enhance the delivery of instruction to students to empower students to construct knowledge through disciplined inquiry with elaborated communication of learning that has value beyond school. These criteria were consistently addressed through AIW professional development and, subsequently, passed along to students to create powerful learning experiences in classrooms.

What is less conclusive is the degree to which the nature of curriculum and content was

changed as a result of AIW implementation. The data gathered from Rock Valley Middle School indicated a strong curricular guidance system. Further, staff indicated that the work designed to incorporate elements of the AIW framework into their approach to instructional delivery actually enhanced the curricular frameworks that were a component to their instruction. In this case, it can be concluded that the effort to implement the AIW framework in Rock Valley was successful in addressing the core of instruction.

This was not the case in Beamon Community Secondary School. Recall that both the staff and the principal at the time of the study indicated that there was no clear curricular guidance system in place. A Science teacher new to Beamon Community Secondary School observed that

there really isn't a strong curriculum in place. We all do things differently from a curriculum standpoint. We really need to do a lot more work to get on the same page with teaching standards and really understand what we want kids to learn.

Though the implementation of the AIW framework was successful at Beamon Community Secondary School, the success in addressing the full instructional core cannot be achieved because of its failure to address the interaction of teachers with students around content and curriculum.

Though the instructional core was not fully addressed in Beamon, data from the study supports a secondary strand of literature addressing the core of instruction. This strand suggests that a high-quality instructional core with powerful learning experiences often means shedding traditional, less dynamic approaches to instruction and engaging in practices that engage students in new ways centered on their own experience and that of their peers (Elmore, 1996). Those interviewed in both samples articulated the efforts of implementation leaders to resist introducing

competing initiatives that might interfere with the work required to implement the AIW instructional framework. The data revealed a commitment to the dynamic principles of AIW designed to place students in the driver's seat of their own learning. Participants across both samples articulated a commitment to creating instructional experiences that included a strong emphasis on value beyond school. In this way, the implementation of AIW in Rock Valley and Beamon was consistent with the work outlined in literature to successfully address the instructional core and this specific strand of literature.

Further, the literature indicates that most reform efforts simply focus on "improving curricular materials, training teachers in new methods, or adding new technologies" (Cohen & Ball, 1999, p. 2) and that too little time is devoted to enhancing teacher capacity. Data from both samples clearly indicates a commitment to building teacher capacity through the dedication of resources as well as structures to support feedback on instructional approaches.

Finally, as it relates to the impact of AIW efforts on the instructional core, the research suggests that it is the "teachers' knowledge, expertise, and skills that affect the interaction of students and materials in ways that neither students or materials can" (Cohen & Ball, 1999, p. 4). The implementation efforts at Rock Valley Middle School and Beamon Community Secondary School represent a clear investment in teacher capacity. What is less clear is the impact of the work beyond initial implementation efforts. In the case of Rock Valley, it can be stated that they remain in the middle of the implementation effort while Beamon Community Secondary School has advanced beyond initial implementation and has encountered challenges in advancing the framework beyond initial implementation. As it relates to the outcomes of the investment in teacher capacity, it is at this point inconclusive to determine the success beyond implementation to shift the instructional core.

Instructional Frameworks and Powerful Learning Experiences. The impact of powerful learning experiences and the degree to which they are present in classrooms was explored in Chapter 2. In general, the literature suggested that most tasks in classrooms require memorization or simple procedural thinking even though students need to spend a significant amount of time in classrooms on tasks that require higher level thinking and reasoning (Tekkumru-Kisa, Stein, & Schunn, 2015). Bransford, Brown, and Cocking (2010) provide evidence “that organizing information into a conceptual framework allows for greater ‘transfer’; that is, it allows students to apply what was learned in new situations and learn related information more quickly” (p. 17).

Not only did this study reveal that the implementation of the AIW framework across classrooms in two separate contexts promoted powerful learning experiences, but the data also revealed accountability structures that were created to ensure that efforts to create powerful learning experiences persist throughout each school setting. It has been stated throughout the course of this study that the AIW framework was successful across both cases in creating more powerful learning experiences in classrooms **according to those tasked with designing powerful learning experiences, the teachers and instructional staff.** In both cases, teachers emphasized the shifting of practices from tasks that did not require high-level cognitive work, such as the identification of vocabulary terms, to tasks that require students to engage in construction of knowledge. For example, in the Rock Valley Middle School case, one teacher discussed the process he used to have students construct lab activities for the purpose of students driving their own inquiry as opposed to the utilization of a lab activity to affirm information that was previously delivered via direct instruction from the teacher. **Additionally, there were examples across both settings of teachers elevating their instructional approaches to creating authentic and**

powerful learning experiences for students through the AIW processes and procedures. In Rock Valley, core content area teachers began to implement interdisciplinary learning experiences for students that required students to transfer their learning from one core content area to another while expressing their learning for authentic audiences. In Beamon, teachers across multiple disciplines articulated that nearly all of their lessons were subject to the AIW process and that nearly every unit of study included powerful and authentic experiences.

Perhaps more importantly, the incorporation of the AIW framework was bolstered by accountability structures, both principal to teacher and teacher to teacher, that ensured powerful learning experiences were infused into instructional planning processes across nearly all classroom settings. The data revealed that in both schools, teachers were more invested in the process with the promise of more engaged students due to the presence of high level cognitive tasks. Further, as the instructional vision in both cases was clear in its embodiment of authentic experiences for students as dictated by building leadership, the development of powerful learning experiences was likely to be incorporated into classrooms. Absent in this study was the presence of data originating with students. Though it was clear that implementation efforts addressed the instructional development process of teachers, it was not clear if students experienced the impact of powerful learning experiences as learners themselves.

Instructional Frameworks and Coherence. The adoption of instructional frameworks has proven to create powerful learning experiences for students. However, for the instructional frameworks such as AIW to impact students across the entire school community, a level of coherence must be achieved. The research literature suggests that in order for the instructional core to advance powerful learning for all students, a collective, school-wide effort in which school administrators, coaches, and teachers, commit their work to improving the workings of

the instructional core is necessary (Fullan, 2011; Newmann, Bryk, & Nagaoka, 2001; Bryk, 2010). Thus, whether reforms are able to produce positive outcomes “depends largely on how the school as a social context supports teaching and sustains student engagement” (Bryk et al., 2010, p. 24).

The literature suggests there are components that contribute to coherence one of which is a strategic orientation supporting implementation. Upon review of the literature presented in Chapter 2, the cases in Rock Valley and Beamon included a strategic approach to implementation. As discussed in Chapters 4 and 5, the leaders in both school communities invested in leadership structures coupled with support and expertise from the AIW Institute to create a process for implementation. This process included Inquiry Teams, Anchor Teams, and Pilot Teams. Additionally, a professional development plan projected a process by which the framework and associated professional development would be rolled out over time. Finally, a scaled approach to the onboarding of staff existed in both communities. This strategic orientation supported coherence minimally through the process of implementation.

The literature also indicates that for coherence to produce positive outcomes, school leaders must include themselves in implementation efforts. As previously stated, the research suggests that frameworks are more likely to achieve coherence when the “leader becomes a context setter, the designer of a learning experience -- not the authority figure with solutions” (Fullan, 2001, p.112). In both cases, school leaders not only chose with intentionality, the teachers who would lead the effort, but they worked alongside the teacher leaders to support implementation. Principals and Curriculum Directors served as equal participants on AIW teams. In the case of Rock Valley Middle School, Principal Kara Cooper served as an equal partner on the Inquiry Team. In Beamon, both the Principal and the district’s Curriculum Director served on

AIW teams while empowering the Pilot Teams to support implementation. A Science teacher in Rock Valley gave context to this approach. He shared that “Principal Mark introduced AIW in a way that was so supportive. It didn’t always go as planned, but he was on the team with us. He wasn’t directing us. He was on the team with us.” In both settings, the leaders served as context setters creating investment on the part of staff members tasked with implementing the framework.

Powerful Learning Experiences and Equitable Outcomes. Research indicates that when schools invest in creating powerful learning experiences for students, too often the experiences are reserved for select students. As stated in Chapter 2, it is not customary to provide these components of powerful learning to all students, notably students of color, non-English speakers, or poor students (Resnick, 1987). The challenge for policy makers and teachers alike is to develop “educational programs that assume all individuals, not just the elite, can become competent thinkers” (Resnick, 1987, p. 7). In that same chapter, the research suggested that tasks requiring high-level cognitive work as well as those that require transfer of learning to new and unfamiliar situations are often absent in classrooms that include high numbers of traditionally disadvantaged students, specifically, students of color, students of lower socio-economic status, and students with disabilities (Williams & Wilson, 2010; Newmann, Bryk, & Nagoaka, 2001; King, Schroeder, & Chawczewski, 2010). Upon examination of the two cases included in this study, the evidence was inconclusive regarding equitable outcomes as a result of AIW implementation. While one sample (Rock Valley Middle School) was effective in its use of data systems to measure achievement outcomes, the Beamon Community Secondary School was largely devoid of data structures to measure impact of efforts such as AIW implementation. The data from both cases indicated that leaders of AIW implementation developed strategies to

ensure that elements of AIW that fostered powerful learning experiences permeate all classrooms. However, neither sample developed outcome measures to determine the degree to which powerful learning experiences promoted equitable outcomes. The failure to collect outcome data relative to the impact of AIW implementation for equitable outcomes will be discussed further in the section covering limitations and implications for further research.

Research Questions and Practical Applications

This study aspired to answer the following research question: “In schools that have adopted an instructional framework to improve the instructional core and promote powerful learning experiences for students, what are the conditions and practices that contribute to successful implementation of that framework?” Secondly, this study was guided by the following questions: (1) How and to what extent does the implementation of the instructional framework transform teachers’ classroom practices **through the lens of those tasked with delivering instruction in classrooms**? (2) In what ways and to what extent does implementation of the instructional framework contribute to coherence across grades and subject areas? The discussion that follows will address each of these three questions in addition to providing practical applications to the themes associated with the research question.

As it relates to the primary research question “In schools that have adopted an instructional framework to improve the instructional core and promote powerful learning experiences for students, what are the conditions and practices that contribute to successful implementation of that framework?” four themes emerged through the data gathering process.

Those themes were:

- Dedication of resources
- Flexibility of the framework

- Established culture of feedback
- Instructional leadership

Dedication of Resources. The data revealed in both the PAR and the case study sample that framed this study that a dedication of resources was both a condition and practice that supported successful implementation of an instructional framework. While each school allocated resources differently, the commitment of the resources signaled an investment in developing practices that supported powerful learning experiences for all students. The research supports the assertion that dedicated resources support implementation. In their research, Cohen and Ball (1989) warned that “instructional interventions are commonly introduced into schools without taking adequate account of what it would take to make them work in classrooms” (p. 1).

In both the Rock Valley and Beamon samples, it was clear that those leading the implementation of AIW took adequate account of the necessary resources to support implementation. Whether committing financial or human resources to successful implementation of the AIW framework, the leadership in each case expressed their commitment by providing time, committing financial resources, and investing in human capital to deepen implementation efforts. Importantly, in each case, data revealed that staff acknowledged this commitment and responded with a commitment of their professional investment. In each case, the data gathered through interviews revealed a heightened staff commitment to the AIW efforts as a result of the commitment of leadership to invest in their development. Recall, Cohen and Ball (1999) suggested that most reform efforts simply focus on “improving curricular materials, training teachers in new methods, or adding new technologies” (p. 2) and that too little time is devoted to enhancing teacher capacity. The allocation of resources led one English teacher at Beamon Community Secondary School to comment:

That structure made it feel so important to get it right. And I remember sitting with our team and working so hard to get it right because, (our principal) pulled us out of class.

That's a big deal as a principal to get five substitute teachers for the afternoon. It was his leadership in making that time. Regardless of the challenge of getting subs. He made it such a priority.

The commitment of time, money, and people is a necessary condition for successful implementation of an instructional framework implemented with coherence. The data revealed that, more importantly, the commitment of resources on the part of implementation leaders was symbolic of the commitment to staff instructional capacity. In each case, staff members responded to this commitment with full investment in the processes necessary to elevate instructional practices in classrooms.

As a matter of practical application, school leaders should begin implementation efforts by creating strategies around the use of resources. Often school leaders can be motivated in their improvement efforts by many forces. Some of these forces include policymakers, community members, standardized test scores, and the ideas of ambitious staff members to name a few. A strong commitment of resources, dedicated to a singular effort guided by data systems provides the clarity that staff members tasked with implementation in classrooms need to address the student experience. School leaders would be well served to develop thoughtful strategies around resource allocation so that it aligns with an instructional vision that prioritizes high level cognitive work in classrooms.

Flexibility of the Framework. The dedication of resources proved to be an important condition that contributed to the successful implementation of the instructional framework. The flexibility of the framework to meet the needs of each local context was another condition that

contributed to the success of the implementation efforts. The data was clear in both cases that the establishment of a firm foundational commitment to processes outlined in the AIW framework was necessary to develop common practices that contribute to creating powerful learning experiences for students. More importantly, data in each case indicated that implementation efforts were enhanced when participants shifted the framework to meet their specific circumstances. In each case, staff remained committed to the tenets of AIW that promoted powerful learning experiences. However, they each found that the processes could be tailored to address their specific needs. In each case, data revealed that this flexibility allowed for inclusion of all staff members regardless of the content they were required to teach.

Like the dedication of resources, the flexibility of the framework empowered staff in each case to take ownership of their professional development thereby fostering a deeper commitment to the framework and ultimately to creating powerful learning experiences for a wider array of students. In Chapter 2, I cited literature suggesting that successful schools that get results build knowledge from research and combine it with best practices in their context and work to ensure that everyone tasked with implementing these research-based approaches can learn how to apply them appropriately (Fullan & Quinn, 2016). Data revealed in both cases, Rock Valley and Beamon, that staff members more readily found entry points into the AIW professional development as a result of the flexibility provided to meet their professional development priorities.

Often in practice, school leaders invest in improvement efforts, that too often fail to advance measures of school improvement because they are overly devoted to fidelity of implementation. They often adopt frameworks with prescriptive processes with the promise that the program will elevate student growth when followed with fidelity. This approach leads school

leaders to ignore the unique context of their own school community. As a result, they insist on engaging in processes that simply do not align with the needs of their local context. Examining instructional frameworks for flexibility to meet the needs of staff and students in their own schools is critical when engaging in implementation efforts. Implementation efforts in Rock Valley and Beamon were different from one another. However, the success of each was a result of leaders in both cases adapting the framework to not only meet the needs of local context, but also to empower those doing the work of adoption to address their own professional growth processes.

The stories of Rock Valley and Beamon proved to be a study in the contrast between fidelity of implementation and flexibility to meet local needs. In sum, both fidelity and flexibility were important to the successful implementation of the framework. School leaders would be wise to balance the need for fidelity of the framework with flexibility. Data revealed in both cases, only after staff in each school achieved fidelity could they move toward flexibility, ultimately unlocking the potential to create powerful learning experiences for students. The experiences of Rock Valley and Beamon exhibited parameters for implementation with fidelity while empowering staff members to adjust the process associated with the framework to build their own capacity as professionals.

Creating a Culture of Feedback. The literature reviewed for the purposes of this study suggested that it is important for schools and districts to embrace an intentional strategy for cultivating collaborative cultures where teachers become more precise in knowing which strategy is most appropriate for the learner and the task (Fullan & Quinn, 2016). Collaborative cultures exist on many levels. The AIW framework is inherently collaborative requiring staff to give and receive feedback on instructional tasks delivered in classrooms. The AIW framework

provides a roadmap for collaborative conversations centered on feedback designed to elevate instruction to levels that create powerful learning experiences for students. At Rock Valley Middle School and Beamon Community Secondary School, an established culture of feedback was evident; an important condition promoting the successful implementation of the AIW instructional framework. In both Rock Valley and Beamon, those who led implementation efforts intentionally developed strategies to create space for vulnerable conversations to flourish. More so, each expressed their value in words and actions, that the framework has its greatest impact when staff brings vulnerability to AIW engagements. In both cases, the data was clear that staff responded to this expression of the value of vulnerability. The interviews revealed that at the outset of implementation, they approached scoring meetings with reservation, bringing tasks that posed little to no space for criticism. As trust in the AIW process and in teammates increased, staff expressed their willingness to present instructional tasks that required critical feedback to elevate the learning experiences for students.

Though each case arrived at their culture of feedback differently, both embraced the vulnerability that serves as a condition for successful implementation. At Rock Valley Middle School, the staff dedicated substantial time examining student data. When they found disparities in outcomes, they began reflecting on their own practices and welcomed a framework that fostered vulnerability. At Beamon Community Secondary School, the staff, motivated by a previously chaotic approach to professional development, craved investment in a structure that would provide meaningful growth in instructional practices. While each arrived at this conclusion differently, the data revealed a culture open to feedback for the purposes of creating powerful learning experiences for students. Illustrative of this openness, the curriculum director of Beamon Community School District when reflecting on the type of work he asked staff to

bring to AIW professional development meetings, he said: “I told them, if you’re thinking of bringing a task that you don’t want changed, don’t bring it at all.” After interviewing staff at both Rock Valley and Beamon, I found that they collectively embraced this notion.

As a practical application school leaders should invest in developing a culture of feedback and professional curiosity as was reflected in the findings previously outlined. Building structures whereby staff are not only open to feedback about their approach to instruction, but welcoming of that feedback is critical. To do so, leaders can center conversations on data that reveals shortcomings in the school’s instructional programming. Creating systems that empower staff to both give and receive critical feedback around instructional practices serve the needs of students who learn in classrooms. Too often, critical feedback is seen as the responsibility of the school leader and fails to consider the expertise of those working with students each day in classrooms. Leveraging the deep experience of teachers to provide feedback to their peers, particularly when aligned with a well-defined structure for feedback only serves to elevate the classroom experience for students. The leadership of Rock Valley Middle School and the Beamon Community Secondary School went to great lengths to create space for valuable feedback to be shared amongst peers. While the leaders participated as partners in the process, the power of AIW implementation in both cases rested with those tasked with creating powerful learning experiences for students in classrooms each day.

Instructional Leadership. Instructional leadership was the final and perhaps most significant condition supporting successful implementation of instructional frameworks at both Rock Valley Middle School and Beamon Community Secondary School. Bryk et al. (2010) indicate that the instructional dimension of school leadership directly impacts the dynamics of student engagement and learning. School leaders, in working toward instructional program

coherence should work on capacity of teachers, clarity of purpose, precision of practice, transparency, monitoring of progress and continuous correction. Each of these elements proved to be important components of the successful implementation of AIW. Through the data collection process in both samples, staff shared that they were and remained clear about the instructional priorities of the school leader at the time of implementation, thus arriving at a clarity of purpose. The clarity of instructional vision bolstered the confidence of staff members in those leading implementation efforts. Importantly, the data from each sample highlighted the investment of leadership beyond the building principal. In each sample, teacher leaders played a key role in the successful implementation of AIW as they worked to create structures designed to enhance the precision of instructional practices through the AIW framework. These teacher leaders came to be trusted partners in advancing the aims of school environments with powerful learning experiences. Whether this was the Inquiry Team or Anchor Teams in Rock Valley, or the Pilot Teams in Beamon, each played a crucial role in supporting staff through implementation of AIW. As such, staff expressed a willingness to invest in the work to develop common instructional language for the purpose of creating common instructional experiences for students. In both samples, accountability structures emerged to ensure successful incorporation of key elements of AIW aimed at creating powerful learning experiences. This approach supported the transparency and monitoring necessary for frameworks such as AIW to realize success. The data at Rock Valley Middle School showed that the building principal was at the forefront of establishing accountability measures though eventually, staff found a sense of accountability to their AIW partners. In Beamon, staff immediately invested in accountability to their teacher leaders and later their administrative leaders. In both cases, the data showed that

accountability materialized as a result of clear instructional leadership on the part of both principal and teachers.

The data collection process in both samples provided answers to the second research question, “How and to what extent does the implementation of the instructional framework transform teachers’ classroom practices?” Upon review of the data, I found that a single line of inquiry led to dual outcomes. The first, was a clear shift in teacher approaches to powerful instructional practices. The second was the deployment of the instruction itself.

Throughout the process of interviewing, staff shared the ways in which investment in the AIW framework shifted their thinking about impactful approaches to classroom instruction. One strand of literature by Fullan and Quinn (2016) examined in Chapter 2 suggested an approach to developing classroom tasks that involve using information to solve real-life problems by developing students’ abilities to understand concepts, think critically, solve problems, and apply learning in authentic ways. This approach to learning “requires students to take greater charge of their own and each other’s learning inside and outside the classroom” (Fullan & Quinn, 2016, p. 93). The data resulting from the study of both samples showed that teachers began to shift their approach to designing instruction geared toward powerful learning experiences. The interviews highlighted a firm grasp of common language around instruction driven toward student inquiry. Participants shared that their involvement with the AIW professional development process prompted a consistent approach to instruction that required student-driven inquiry resulting in transferability of learning experiences to new and unfamiliar situations. Participants in both Rock Valley and Beamon shared experiences of instructional coaching cycles centered around AIW principles. A common experience highlighted in the data was a greater release of responsibility for learning to students, elevated beyond previous approaches. The data indicated a departure

from a teacher-centered approach to instruction to one that prioritizes student-driven instructional tasks. Recall, one teacher at Rock Valley Middle School shared

when we started this work, (Principal) Kara was really clear about giving our lessons value beyond school. It was clear she wanted us to give our instruction life beyond the walls of the classroom. I'd been waiting for that type of vision and investment for 20 years.

This transformation was one that was echoed across the two samples.

The shift in the instructional approach embraced by teachers was most importantly revealed in the instruction delivered to students. Teachers in both samples spoke of their students' experiences. A Special Education teacher in Beamon Community Secondary School shared that "I have seen more applying their math to the real world. Their teachers ask them to really work through their Math and decide how it would work in the real world. That's definitely a change." Likewise, at Rock Valley Middle School, a Special Education teacher serving on the Inquiry Team shared:

Before, our teachers when addressing our special education students, would just water things down, maybe give them some modified multiple choice questions. Now, we're actually asking kids to investigate things and write about it. They're asking our kids *how* they know something and not just *what* do they know. Their engagement has gotten so much better.

These are but two examples. The data was consistent across teachers interviewed that their involvement in the AIW process prompted them to think more critically about instructional tasks and the degree to which they drove student inquiry. In both cases, the data showed that after initial implementation, staff members referred to their thinking about the elements of powerful

learning experiences embedded in the AIW framework as second-nature. This thinking became a part of their everyday approach to instruction.

Less conclusive however was the degree to which students experienced a transformational classroom experience. While the data shared the teacher perspective on shifting instructional approaches, the study did not include a component that involved student voice, a limitation that will be explored later in this chapter.

Finally, I posed the following question when framing this study: “In what ways and to what extent does implementation of the instructional framework contribute to coherence across grades and subject areas?” In Chapter 2, I cited literature indicating that for schools to achieve instructional program coherence, Newmann et al. (2001) specify three criteria. They are:

1. A common instructional framework [that] guides curriculum, teaching, assessment, and learning climate. The framework combines specific expectations for student learning, with specific strategies and materials to guide teaching and assessment.
2. Staff working conditions [that] support implementation of the framework.
3. The school allocates resources such as funding, materials, time, and staff assignments to advance the school’s common instructional framework and to avoid diffuse, scattered improvement efforts. (p. 299-300)

Through the data collection process, it was clear in both Rock Valley and Beamon that each was making progress toward coherence. The leadership of each school community ensured that all staff were included in AIW professional development processes. Additionally, staff cited the inclusivity of the framework as a key driver for successful implementation. A Pilot Team member at Beamon Community Secondary School expressed this sentiment stating: “AIW is for

everybody. It isn't Science specific. It isn't Math specific. It isn't English specific. It's for all kids. Everybody has something to contribute to the work.” Likewise, at Rock Valley Middle School, a teacher shared:

There's such good value about knowing what the other teachers are doing in the school and AIW allows us to see that. It doesn't matter what you teach, we are all learning from each other. I never knew what the Music teachers were doing, but they could do AIW too. It was so interesting getting feedback from them.

This level of coherence was possible because of the common language used by teachers because of the AIW professional development process. In both samples, staff were able to clearly articulate the AIW language relative to creating powerful learning experiences for students. Data from both schools showed that the investment in the foundational elements of AIW with strict adherence created the common language that drove coherence. In short, all staff were able to articulate the priorities for powerful learning experiences because of the AIW training.

School leaders, as a practical application of these findings, play a pivotal role in creating coherence through planning of professional development. Often, instructional leaders plan professional development in a way that is isolated and episodic. Professional development opportunities are often viewed as events and not processes. In the case of Beamon Community Secondary Schools, the impetus for the introduction of AIW was a chaotic and disjointed approach to professional development. School leaders should consider professional development processes that are well-connected from one experience to the next and exist in the spaces where teachers teach and students learn. Under these conditions, all teachers emerge as professional development leaders invested in the success of their colleagues. In both Rock Valley and Beamon, professional development occurred not only during the time allocated by school

leaders, but in informal encounters in order to address problems of instructional practice.

Through the investment in teacher leaders, each school elevated the role of teachers to invest in the work of their peers, lessening the responsibility of the school leaders to address the multifaceted needs of a diverse body of teachers.

As previously stated, the data collected from both cases showed a commitment of resources to the AIW framework. As a result, it can be stated that each case created staff working conditions [that] supported implementation of the framework, a criteria identified by Newmann et al. (2001) to achieve coherence. Likewise, as previously stated the resources devoted to AIW by school leadership satisfied the following criterion identified by Newmann et al. (2001): the school allocates resources such as funding, materials, time, and staff assignments to advance the school's common instructional framework and to avoid diffuse, scattered improvement efforts.

Through the implementation phase, each of the two schools chosen for this study exhibited the foundational elements to coherence as stated above. However, the sustainability of AIW elements across all classrooms remains inconclusive. Questions surfaced during the data collection process about steps that could be taken after initial implementation in both settings. Additionally, gaps in AIW investment were revealed as Beamon Community Secondary School experienced a change in leadership and difficulty onboarding new staff members to the AIW process. Further, Rock Valley Middle School was only beginning to onboard its new fifth grade teachers. Given these questions, it is not a certainty that coherence had been achieved in either setting though the structures were in place to create coherence.

Researcher Practitioner Partnership. A final word on the practical application of the ideas outlined in response to the research questions. This study provided me the opportunity to learn in multiple school contexts. As such, I was able to serve as a conduit for teachers and

leaders in both spaces. As a researcher and practitioner, I was able to leverage the perspectives of both to enhance the instructional program of each school through the sharing of ideas resulting from a robust process of data collection. School leaders would be well-served to adopt the approach of a researcher to disperse ideas that serve to elevate the experiences of students. Engaging in work in schools through the lens of a researcher can serve leaders well in developing conditions that support successful implementation of instructional frameworks; something I learned firsthand as a researcher-practitioner throughout this study.

Additionally, as a result of my dual role as researcher and practitioner, my own practices as an instructional leader were transformed. As an instructional leader tasked with leading professional development for school administrators, I leveraged the learning gleaned from my work with the Inquiry Team in Rock Valley to shift my own practice. Each engagement I led with school administrators included the use of AIW rubrics designed to create authentic experiences for *instructional* staff. After exploring the power of the AIW process with teachers, I began infusing a similar process with school administrators ensuring that professional learning for instructional staff included authentic and powerful learning experiences. Absent my dual role as researcher and practitioner, I would not have considered the power of this experience for instructional leaders. One building principal who was exposed to the AIW process through these professional development engagement sessions commented:

Our principal meetings have not had this much substance since I started in Rock Valley.

We have so much collective wisdom and experience in the room that was previously untapped. Using this new process, I am able to get valuable feedback from other instructional leaders on how we are guiding our teachers. It has really shined a new light on creating valuable experiences for our teachers through professional development.

Because of the feedback I receive from my colleagues, I am now thinking more deeply about the learning my teachers do to serve their students more effectively.

As a researcher, I both observed and guided a process to create powerful learning experiences for students. As a practitioner, I have been able to do the same for building principals as they create authentic experiences for their own staff.

Implications

The data gathered from Rock Valley Middle School and Beamon Community Secondary School was collectively coded producing four distinct themes. Those four themes were (1) dedication of resources, (2) flexibility in the framework, (3) established culture of feedback, and (4) instructional leadership. The section that follows provides a cross-case application of these four themes.

Influence of the Framework on Curriculum, Instruction, and Assessment. The data gathered from Rock Valley Middle School and Beamon Community Secondary School revealed that the tenets of AIW were becoming a part of each school's instructional way of being. That is to say, in both cases, teachers articulated that the components of the framework that fostered powerful learning experiences had become second nature when making instructional decisions. This was the result of dedicated professional development designed to build a foundation that led to common instructional language as well as common expectations for the experiences of students in classrooms. In both cases, staff revealed that through the AIW process, they were more regularly cognizant of developing instructional tasks that required high-level cognitive work and were driven by student inquiry. What I found through the course of this study, based on the data, was that the work in which staff engaged as a result of the AIW professional development process, had a noticeable impact on areas beyond instructional tasks. In both cases,

I saw the impact of the AIW work influence work done in other areas of curriculum, instruction, and assessment.

In Chapter 4, I referenced an Inquiry Team member from Rock Valley Middle School who concluded that:

If you want your instruction to score higher on the AIW rubrics, you have to have your students engage in higher order thinking. But if your learning targets aren't measuring higher order thinking, then the data you see doesn't seem to match. So working with the AIW rubrics has actually caused me to think about revising my learning targets so that they evaluate higher order thinking which they currently don't all do.

This conclusion and others like these led me to conclude that the components of AIW that prioritize higher order thinking on the part of students led staff to question previously established practices in curriculum, instruction, and assessment.

My work with the Inquiry Team in Rock Valley allowed me the opportunity to regularly observe discussions of this nature. For example, in my work with the Director of Curriculum, Instruction, and Assessment for the Rock Valley School District, I learned that he was developing a process to evaluate the learning targets across all district secondary schools with principles of AIW as the evaluation tool. The Rock Valley School District in 2020, introduced an innovative assessment system they referred to as Target Based Learning and Grading. This process involved all secondary staff members establishing common learning targets in all content areas. The development of learning targets was done with a set of criteria whereby staff would determine the viability of each learning target against the following criteria:

- Readiness: Does this standard prepare students for future grade levels and content levels?

- Endurance: Is this standard valuable over time (beyond a single test date)?
- Assessments: Does this standard adequately prepare students for nationals or state assessments?
- Leverage: Is this standard useful in multiple disciplines?

As a result of the AIW professional development process in Rock Valley, the Director of Curriculum, Instruction, and Assessment was developing a learning target revision process whereby each learning target would be measured against the following criteria:

- Construction of knowledge: Does the target require students to engage in a process that allows them to construct new knowledge of their own?
- Disciplined inquiry: Does the learning target require students to engage in a process of student directed inquiry?
- Value beyond school: Does this learning target require students to produce something that has value beyond an upcoming assessment? Are students able to apply their learning to real-world situations?

Based on the successful implementation of AIW in Rock Valley, I found that the staff had begun to apply principles of AIW to areas outside the immediate circumstances where the AIW professional development work was happening.

This finding was not unique to Rock Valley and was not limited to work on learning targets and standards. In both settings, the work of AIW led leaders and staff to apply greater scrutiny to content and curriculum. In Rock Valley, I found that staff that I interviewed often referenced the way in which AIW elevated their prescribed curriculum. They provided insight into the complementary nature of AIW with curricular frameworks. An English teacher in Rock Valley commented:

Engagement is up with my kids. I've always taught writing and we have a clear writing curriculum that the district gives us. The truth is, I don't always like it because it really teaches a five-paragraph essay writing formula. Since we started AIW, I'm able to take the curriculum that the district gives us and add a lot more analysis to it. We're always thinking about how we can take this piece of writing and give it more real-world value. So we haven't abandoned our curriculum, but we actually made it better because of the work we're doing with our AIW groups.

In Beamon, the process by which content and curriculum interacted with one another played out differently. Previously, I referenced data indicating that the staff at Beamon Community Secondary School indicated they lacked a clear curricular guidance system. However, the staff also shared that the AIW professional development process led them to think more deeply about their content and curriculum. Though the process of curricular evaluation was not as developed in Beamon as it was in Rock Valley, the AIW framework permeated the work of those in leadership. The current building principal, Principal Susan, shared that

We have some work to do around learning targets and standards. Sometimes, our kids don't know what they're supposed to know when they walk out of their classroom that day. I am planning to do some vertical alignment discussions, starting with the Math team. Where we look at all the standards. We've done so much good work with AIW and establishing how we want to teach things. We can really take that work and think about how that can help us better clarify what we want to teach them. I haven't seen that yet and we're ready for it.

This sentiment was echoed by the current Curriculum Director. He shared that

we really haven't done much work on many other initiatives because we've been totally invested in AIW. We may have to start though. Our staff keeps thinking about what we're teaching now that they've invested in such a student-driven process of instruction.

While the curricular revision process was, at best, in its early stages at Beamon Community Secondary School, the AIW framework led them to begin shifting the scope and sequence in their individual classrooms. After initial implementation of AIW and when all staff had been trained on the process of evaluating instructional tasks against AIW criteria, the staff and the leadership team expressed a desire to take another step in the professional development process. The next step was referred to as unit design. Upon my evaluation of documents and observation of professional development sessions along with multiple interviews, I discovered that the work to revise entire instructional units was being completed through the lens of AIW. Though the unit design process was not a prescribed component of the AIW process, the team in Beamon leveraged their work through AIW to assess content-area scope and sequence to determine if instructional units of study were fostering powerful learning experiences for students. When describing the work of unit design, an English teacher at Beamon Community Secondary School shared that

the idea would be to have your entire unit looked at using AIW ideas to see, are there higher levels of content and communication happening throughout the entire scope of what you're teaching. The overall goal would be to create an all AIW all the time approach to all of our teaching units.

This thinking revealed to me that the work to establish AIW principles in the instructional plan at Beamon Community Secondary School had taken hold, so much so that it was driving strategy in areas beyond AIW professional development processes. This was consistent in both settings.

Finally, as previously noted, my role as researcher and practitioner in Rock Valley provided a unique perspective that shaped my role as an instructional leader in Rock Valley. As an instructional leader, I observed with the curiosity of a researcher, the manner in which collaborative professional development fostered powerful learning experiences in classrooms. Tethering my work as a researcher to the work in which I engaged as a practitioner, I was able to guide professional development related to curriculum, instruction, and assessment with a new and unique approach designed to create authentic experiences for staff and students alike. Keeping my work closely connected to research and research literature has shifted my ability to lead from a posture that was once responsive to the whims of a curious staff, to one that was both responsive to staff needs *and* closely aligned to my own learning as a researcher as well as the existing research literature.

Defining Success of Implementation. Through the data gathering process, I sought to identify conditions that supported successful implementation of instructional frameworks. The challenge to operationalize success of implementation was present as I developed themes. Based on the themes that emerged from the data, I found clarity and am now able to more clearly observe what successful implementation of instructional frameworks looks like in school settings.

To begin, I learned across both settings, teachers began to refer to the principles of AIW in a way that had become second nature and ingrained in their instructional approaches. While the leadership in both settings maintained the time and structure of AIW professional development opportunities and scoring meetings, staff regularly referenced the informal encounters with teammates to quickly examine an instructional task to ensure AIW elements existed. In Rock Valley, staff often used the acronym “AIW” as a verb. They would often

suggest to teammates that they “AIW a lesson” to make it more authentic. In both contexts, staff articulated that when planning new instructional tasks, their planning was guided internally by the AIW principles of construction of knowledge through disciplined inquiry with value beyond school. As I referenced in Chapter 4, one staff member referenced the “automaticity” that her team had achieved in applying AIW principals to lesson design. In sum, across both cases, the principles of AIW had become a part of the staff’s instructional way of being, thus signaling a successful implementation.

In addition to the instructional way of being I observed as a defining feature of successful implementation, I observed accountability structures emerge that ensured the existence of AIW principles in classrooms across both schools. The accountability structures that were established by administrative leaders, while important, were not the sole defining feature of successful implementation, however. Most important was the peer to peer accountability that emerged in both settings as a result of the investment in AIW professional development. Staff members in both samples discussed their commitment to their AIW teammates and desire to bring vulnerability to their encounters with them. In both settings, staff referenced the trust and camaraderie that AIW professional development fostered. The trust and camaraderie led to a commitment to teammates that exceeded the accountability felt toward administrative directives and accountability structures. A staff member at Rock Valley Middle School shared the commitment she had to her AIW peers:

Principal Kara Cooper makes us fill out these templates to record our meetings and we do. But we certainly don’t take as much time as we used to doing that, because we trust our teammates and we know we’re going to get good feedback from them. So when it’s

my turn to bring a task, I make sure I'm ready because I trust my teammates. It's built a trust that makes it easier to prepare for meetings because I value their time.

The Beamon Community Secondary School staff shared similar sentiments regarding the commitment to teammates. A Social Studies teacher in Beamon shared:

Getting the feedback from people who see it differently is so valuable. And then having discussions like 'how do you grade student work for an essay using that rubric?' Just talking to each other through these issues is such a good experience. We get to know each other, and it really strengthened the bond among us. I make sure to come prepared because of the time we spend with each other.

In both settings, it became clear that the accountability mechanisms extended far beyond those set by the building principal. Successful implementation was recognized when staff were accountable to one another ultimately creating a more powerful learning experience for students.

Building Systems. The themes that emerged as a result of the data gathering process pointed to a variety of systems that were leveraged to support successful implementation of AIW. These included systems related to budgets, human resources, professional learning, teacher evaluation, and data. Each contributed to the success of AIW implementation across both samples. Based on my evaluation of the themes that emerged from each of the two samples, I found that taking a systems approach to both implementation of AIW as well as sustainability of the framework would ultimately prove to support the continued incorporation of powerful learning experiences for all students across all spaces in schools. In both samples, I observed a clear instructional vision that began with leadership in each building. Staff responded to the instructional vision and activities that would contribute to achieving that vision. In Chapter 2, I highlighted research that warned of the pitfalls of implementation efforts. This research

suggested that too often in schools, we observe leaders adopting programs that are reflective of the latest trend. Whether shifting policy to respond to these trends, or engaging in trendy initiatives, this approach often leads to a “hyperactive policy dance” (Hess, 1999). This hyperactive policy dance leads to disparate programs and initiatives that result in schools engaging in processes in name only. As I stated in Chapter 2, this approach typically results in school leaders only superficially addressing processes in need of improvement in schools.

In both cases there exist warning signs that point to superficial adoption of AIW. However, the leaders of implementation efforts devoted time and energy to building AIW systems that would not only support implementation, but support sustaining AIW into the future. In both cases, a system of professional development was created for all teachers, across all content areas that focused solely on AIW professional development processes. The requisite time and financial resources were committed to implementation efforts. In Rock Valley as well as Beamon, professional development time was devoted exclusively to AIW professional development programming. This time was held sacred for AIW processes and was free of competing initiatives. In Rock Valley, Principal Kara dedicated 90 minutes each week for AIW teams to meet. They created their building schedules around this time to ensure that a system that could accommodate AIW would remain a constant. In Beamon, the district created a 90 minute late start for students each week when teachers would meet to engage in AIW scoring meetings. This time was foundational to building a systemic approach to AIW professional learning.

In addition to the systemic approach to professional development in each school, each leveraged human resources to build a system solely dedicated to AIW professional development. Importantly in each school, the leader that chose to implement AIW was intentional about building a system of leadership that was distributed beyond their purview. In Beamon, Principal

Mark very intentionally chose Pilot Teams who devoted a full school year to training prior to implementation. In Rock Valley, Principal Kara invested in an Inquiry Team, Pilot Teams, and an Anchor Team to ensure she was not the sole leader and figurehead in the implementation process. In Beamon, principal Mark eventually departed the district and, as a result of his work to invest in his Pilot Team, AIW flourished even in his absence due the system he very intentionally built around AIW professional development.

In Rock Valley, Principal Kara quickly handed off the responsibilities of conducting professional development to teacher leaders. Early in Rock Valley's implementation, I observed Principal Kara serving as the lead figure in the AIW processes. As she continued to invest in her team, I observed a shift to professional development sessions led by her teacher teams. I observed fishbowl activities in which Pilot Teams modeled a scoring meeting for the assembled staff. I observed panel discussions featuring Pilot Team members for an assembled staff, many of whom were early in their AIW professional development experience.

Further illustrative of the systems approach to implementation, I interviewed current staff members who began their AIW professional development under Principal Mark and have continued under their new principal, Principal Susan. Across multiple interviews, it was clear that the staff of Beamon Community Secondary School lacked confidence in Principal Susan's instructional vision. Many expressed concern for the fate of AIW. Though the leadership changed, each member of the Beamon Community Secondary School staff expressed confidence in the leadership of the Pilot Team members who remained in Beamon after Principal Mark's departure to maintain the system built to support AIW. Based on the data gathered from each sample, I was able to determine that a systems approach to establishing an instructional framework supports the implementation more so than an approach relying on the ideas of a

single leader. In neither case did the AIW implementation effort rest with a solitary leader. Instead, it flourished under a system of coordinated resources designed to maintain powerful learning experiences in all classrooms for all students.

Implementation to Sustainability. In the initial implementation stages, both Rock Valley Middle School and Beamon Community Secondary School realized successful implementation of the AIW instructional framework. Both were able to install a systemic approach to supporting implementation of the framework. After reviewing the data centered around the four themes that emerged, I found that, in each case, though they engaged in successful implementation, challenges remained in sustaining the framework beyond implementation. It was not the case in either Rock Valley or Beamon that the AIW efforts had diminished or gone away. However, each were experiencing challenges related to the steps to be taken beyond implementation.

At Beamon Community Secondary School, the data revealed that the staff was unsure of how they might elevate the workings of AIW beyond engaging in task scoring meetings. Specifically, staff who were involved with the initial implementation, expressed a desire to move beyond initial professional development. A veteran staff member at Beamon Community Secondary School gave voice to this sentiment:

I've scored almost every assignment that I have as a task. I'm running out of things to bring for tasks because we've been doing it for several years now. And our new staff aren't buying in the same way. They were beginning to just check the boxes too. And so we were trying to think of how we could adjust this to make it more applicable to all staff. So we've been trying things, but there just doesn't seem like a clear plan to do whatever's next

A staff member in her first year in Beamon commented that “the new stuff like the storyline and unit planning work seems like busy work to me but I have really benefited from the work on instructional tasks.” Another teacher who served on the initial Pilot Team shared:

I think that at this point, we have kind of become stagnant as far as our growth goes. In the first few years we were always kinda working towards the next level of what we're doing in AIW. Recently, it has been just kind of okay. Almost like we've learned it all, and now we're just like: 'ok get your task ready.'

Though Rock Valley Middle School began implementing AIW after Beamon, this sentiment began to enter into Inquiry Team conversations as I continued to gather and examine data there. In Rock Valley, staff members routinely expressed their comfort in the AIW scoring process and were using it to create powerful learning outcomes. Like Beamon however, those who participated in the early stages of implementation began to wonder what they might do to elevate the framework. Principal Kara Cooper questioned:

Now that my Pilot Teams have scored so many things, I'm wondering how I can challenge these teams. Could they work towards an interdisciplinary unit? And then really compare in this unit, what AIW looks like across content areas and classrooms. I would be really curious about their perspectives of doing a very comprehensive unit like that, in comparison to what they've been doing with task analysis.

Additionally at Rock Valley, the Inquiry Team began to explore the outcomes that could be measured to monitor the effectiveness of AIW elements in classrooms. While the team could not agree on the outcomes that might be put in place to accomplish this, it was clear that the Inquiry Team, like Principal Kara, was beginning to consider next steps to AIW work.

The stories of Rock Valley Middle School and Beamon Community Secondary School emerged in two stories of competing “goods.” Recall that in their work *Coherence: The Right Drivers in Action for Schools, Districts, and Systems*, Fullan and Quinn (2016) argue that to achieve change in schools, they should “develop explicit frameworks or models to guide the learning process” (p. 88). As was previously stated, I found that a degree of coherence was achieved, at least through the initial implementation in both Rock Valley and Beamon. In sum, coherence was good. However, while coherence was achieved as an outcome, moving from coherence to innovation was clearly the next phase in successful implementation. Practitioners would be well-served to create strategy to move from coherence to successful implementation, to sustainability, and ultimately to innovation. Coherence should serve as a conduit to innovation and not as a deterrent. Rock Valley, Beamon, and schools seeking powerful learning experiences for students should proceed with a spirit of forward motion *beyond* coherence and into innovation. It is with a spirit of innovation that powerful learning experiences are achieved for all students.

Limitations

Like any research study, there were limitations to this one. As a comparative PAR case study, it was designed to leverage the learning from the case study to advance the aims of the PAR process. Identifying the case study sample proved difficult. Working through the AIW Institute to identify case study samples was an effective approach. However, the COVID-19 Pandemic interrupted AIW implementation efforts in many of the schools associated with the AIW Institute. As a result, I initiated work in the PAR sample prior to the investigation in the case study sample. The work to gather data happened simultaneously and not in succession as

originally designed. Nonetheless, I was able to gather data from each sample to arrive at conclusions that can guide future practitioners seeking to implement instructional frameworks.

Another limitation was my role as both researcher and practitioner in the Rock Valley School District. Though this is an accepted practice within Participatory Action Research, the threat of bias remained. There can be no doubt that the potential for bias existed as I worked with the Rock Valley Inquiry Team. Though the conversations were productive and uniquely focused on advancing the aims of the AIW processes, it cannot be ignored that my position as a district leader presented a threat to authenticity. It is possible that staff members may have chosen to adjust the information they chose to share to portray positive outcomes based on the positional relationship between me and the team. This potential bias however, did not stifle the work to continue to promote more powerful learning experiences for students in more settings thus revealing conditions that supported these approaches consistent with the design of the study.

Further, even though I worked to approach my work in Rock Valley as a researcher, thus limiting the potential for bias, the real limitation turned out to be the dearth of data that was presented to me. As a practitioner in Rock Valley, each encounter with the staff of Rock Valley Middle School presented an opportunity for data collection. Remaining tethered to the protocols that were set forth in Chapter 2 allowed me to gather data that was connected only to the research questions posed. In the end, I would refute the limitations assumed by the dual roles of researcher and practitioner. I contend that the richness of the data was only enhanced by this arrangement. Further, as a practitioner in the role of curriculum, instruction, and assessment leader, this arrangement served to enhance my own professional practice. I was able to glean insights from both samples that enhanced my efforts as a leader of implementation efforts in my own district.

Another limitation cited throughout the study was the lack of student voice involved in the assessment of powerful learning experiences. Though this study centered on conditions supporting implementation of instructional frameworks, the lack of student voice included in data collection limited my assessment of the existence and impact of powerful learning experiences.

The lack of outcome data can also be viewed as a limitation to this study. A portion of this study was designed to measure the degree to which powerful learning experiences create equitable outcomes for students. As a qualitative research study, I failed to examine quantitative outcome data that would reveal the creation of equitable outcomes. Though the Inquiry Team at Rock Valley Middle School began to engage in discussions around measurable outcomes, we did not develop these assessments.

A final limitation was a lack of demographic congruence between the two samples. Initially, I desired to match two cases that were similar demographically. Given the difficulties in identifying the case study sample, I was not able to achieve this. Though the demographic makeup of the two schools did not match, I don't believe that hindered my ability to accurately examine implementation conditions.

Future Research

This study provided valuable insight into creating conditions in support of successful implementation of instructional frameworks. The study also addressed concerns presented in the research regarding efforts to implement instructional frameworks with coherence to address the instructional core with the intention of creating equitable student outcomes. Based on the findings of this study, opportunities exist for future research.

This study revealed challenges to implementation as schools onboard new staff members while the process of implementation is occurring. Future research is warranted to better understand the role instructional frameworks and associated professional development play in the onboarding of new staff members in school. With teacher retention as a contemporary issue facing many schools, future study exploring the investment in mastery via professional development and the degree to which that contributes to teacher retention would be warranted.

The lack of student perspective around powerful learning experiences was identified as a limitation to this study. As such, future study exploring the way(s) that students experience powerful learning experiences is warranted. Though researchers tend to study student outcomes as a measurement of the effectiveness of instructional programming, a qualitative approach to better understand the student perspective on deployment of instructional approaches that are thought to be inquiry based and authentic could bolster the positions outlined in this study.

This study addressed the concept of accountability that supported conditions for effective implementation of instructional frameworks. These accountability measures were largely associated with organically occurring systems of accountability. A study seeking to explore the interplay between teacher evaluation systems and local school initiatives would serve to benefit those tasked with matching teacher evaluation to school outcomes.

Conclusions

When I began this journey, I set out to better understand how schools might engage in the adoption of instructional initiatives in more than name only. As a veteran school administrator, I have too often observed school leaders adopt a new initiative to please their community and those that make policies in their schools while failing to effectively change the experience for students. I sought to find out what conditions in schools exist that allow them to truly change the

quality of teaching and learning that happens in classrooms. This study revealed to me that with the right conditions in place in schools, we can create change in more than name only. To do so, it is important for us to more broadly define leadership beyond the principal's office or the director's office. Honoring the expertise and experience of those who work in classrooms daily to drive their own learning and thus enhance the learning of their students pays dividends.

In the end, the most impactful professional development often occurs within the four walls of the school with those that serve students in classrooms each day. Empowering our teachers to invest in their own learning and to serve as leaders in the development of their peers creates a vibrant school community that, under the right conditions, elevates the experiences of all students in all classrooms.

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APPENDIX A: Site Selection Protocol

The following protocols will be used to determine the sites of the case study sample of this study as well as the PAR sample of this study. The first protocol is to be used when identifying a mature AIW school. Included in the protocol are general criteria used to determine the grades served as well as the degree to which the components of AIW are fully ingrained into the academic settings within the school. The second portion of the mature AIW school protocol includes elements of the Essential School Supports as outlined by Bryk et al., (2010). These elements are used to ground the study in research that supports successful practices and conditions contributing to successful implementation of instructional frameworks. Each element will be delineated as a high, medium, or low. A school with a high mark will have high incidence of this element that exists in the school over time. This protocol will be used with nominators and school and district staff of schools referred to me for study,

The second protocol, also connected to the work of Bryk et al. (2010), will be utilized to determine that foundational elements that exist in the school sample that can be studied and enhanced through the work of the PAR study. The existence of these elements will provide a reasonable starting point for the work to both study and support the practices and conditions that support successful implementation of the AIW framework. Each element will be delineated as high, medium, or low. A school with a high mark will have high incidence of this element that exists in the school over time.

Site Selection Protocol - Mature AIW School (Case Study)

District Name: _____ Date/Time: _____

District Location: _____ Contact: _____

Opening script: Greetings. I am a student working on earning my PhD from the University of Wisconsin-Madison. I am currently working on identifying sites to conduct research on the practices and conditions that lead to successful implementation of instructional frameworks that foster powerful learning experiences for students and impact the instructional core. In this case, I am conducting a study on the Authentic Intellectual Work (AIW) framework. I am seeking to identify a school that has been through a full implementation of AIW. An ideal site will include the following criteria:

<u>Category</u>	<u>Criteria</u>	<u>Details</u>
Grade Levels	Secondary School	
AIW Implementation	At least three years	
AIW professional development	All or almost all staff members have completed AIW training	
AIW Inclusivity	AIW applies to all academic settings within the school	

Framework of Essential Supports

Essential Element	Essential Element Detail	Low	Medium	High	Notes
Leadership	School leader that has led through the entire implementation of AIW				
Professional Capacity	High professional capacity characterized by the teacher orientation toward innovation				
	High professional capacity characterized by teacher involvement in professional development both internally and externally				
Student-Centered Learning Climate	Student-centered learning climate characterized by minimal disruptions to the learning environment				
	Student-centered learning climate characterized by a strong orientation toward achievement with minimal disruptions				
Instructional Guidance System	Strong instructional guidance system characterized by a strong emphasis on application of learning				
	Strong instructional guidance system characterized by support of teachers to ensure guidance systems inform their decisions in the classroom				

Site Selection Protocol - Emerging AIW School (PAR Study)

District Name: _____ Date/Time: _____

District Location: _____ Contact: _____

The selection of the PAR site will be a collaborative process that includes me and my colleagues within the school district where I am employed. Using the following protocol, we will work together to identify a school within our district to conduct the PAR study. The site will include the following criteria:

Category	Criteria	Low	Medium	High	Notes
Grade Levels	Secondary School				
Leadership	A school leader has committed to engaging in the work of implementation of the AIW framework				
Inclusivity	Implementation of the AIW framework will encompass all teachers and students, academic settings, and programs				
Teacher Innovation	Staff has a propensity for innovation and has committed to serving on AIW teams				
Guidance Systems	Strong instructional and behavioral guidance systems are in place to promote an environment with minimal disruptions to learning				
	Strong instructional guidance systems with sound curricular programs in place				

APPENDIX B: PAR Consent Protocol

The PAR protocols are reflective of the iterative nature of PAR research. What follows is a consent document indicating that the chosen PAR site will participate in an ongoing study of its practices and conditions related to implementation of AIW. Additionally, the document reflects the action-oriented approach to the research done in conjunction with the district and school staff members. The consent form outlines the inquiry cycles that are the basis for PAR.

Participatory Action Research Consent Form

A. For the school

District Name: _____

District Location: _____

School Name: _____

District Contact: _____

School Contact:

Participatory Action Research (PAR) is a form of action research that situates formal research in the environment where the researcher works to actively implement new ideas, processes, or structures that promote the common good. The collaboration between the researcher and those situated in the research environment is close. Stakeholders participate in cycles of inquiry as participants in a change effort in addition to acting as co-researchers. The cycles of inquiry represent actions that are taken and measured and are continually adjusted throughout the research process in order to promote change. A close collaboration between researchers and stakeholders functions as a researcher-practitioner partnership.

The purpose of this study is to identify conditions and practices that occur in the school setting that promote the successful implementation of instructional frameworks. This study will both explore and take action to implement the instructional framework called Authentic Intellectual Work (AIW). The lead researcher will conduct interviews with subjects in the school and district setting that are working to implement AIW.

This agreement between the parties listed represents an agreement to conduct research in the setting identified above. The parties acknowledge that the research will be conducted with stakeholders of the school and district named in this agreement. The lead researcher agrees to keep confidential the names of those included in the research process, the school and all identifying characteristics of the school, and records and documents reviewed and created for the purposes of research including student and staff records. The use of pseudonyms will be

employed to ensure confidentiality of the names of participants as well as the school and school district.

In return for their participation, the district and school named in this agreement will have access to all records included in the research to promote the success of staff and students within the district and school setting. Additionally, a final copy of all research findings will be provided to the district and the school.

The lead researcher agrees to use a “do no harm” approach to both the research and the communication of data and research findings associated with this study. The lead researcher does not seek to negatively portray members of the district or school community in any communication of research findings.

The lead researcher agrees to work with the Institutional Review Board (IRB) of the University of Wisconsin-Madison to take all necessary measures to protect the district, the school, and all human subjects included in the research.

Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is otherwise entitled

(Signature of District Administrator): _____

(Signature of School Administrator): _____

B. For individuals

Participatory Action Research (PAR) is a form of action research that situates formal research in the environment where the researcher works to actively implement new ideas, processes, or structures that promote the common good. The collaboration between the researcher and those situated in the research environment is close. Stakeholders participate in cycles of inquiry as participants in a change effort in addition to acting as co-researchers. The cycles of inquiry represent actions that are taken and measured and are continually adjusted throughout the research process in order to promote change. A close collaboration between researchers and stakeholders functions as a researcher-practitioner partnership.

The purpose of this study is to identify conditions and practices that occur in the school setting that promote the successful implementation of instructional frameworks. This study will both explore and take action to implement the instructional framework called Authentic Intellectual Work (AIW). The lead researcher will conduct interviews with subjects in the school and district setting that are working to implement AIW.

The following participants agree to participate in the research process in (district name) at (school name). As collaborators in the research process, these individuals agree to provide information to the lead researcher related to the study. Additionally, participants agree to work toward the aims of the study through the plan, act, observe, and reflect cycles. All data generated will become part of the research study in addition to being a part of inquiry cycles designed to improve learning experiences for students and staff.

(Participant name): _____

(Participant signature): _____

APPENDIX C: PAR Process Protocol

The Inquiry Cycles Protocol provides a framework for a process of recursive inquiry. This framework will guide participants through inquiry cycles predicated on the plan, act, observe, and reflect cycles. Each cycle is designed to inform subsequent work and this iterative design is encompassed in this protocol. This protocol will be used to guide the work of the research team. It will be utilized in planning meetings where data is reviewed and action steps are determined.

Inquiry Cycles Protocol

Inherent to the PAR approach are inquiry cycles. These cycles include a process that requires participants to create a plan for action, act on the plans, observe the action, and reflect on the learning from this process. These cycles are iterative and recurring throughout the course of the research process. The protocol defined below will guide and document the plan, act, observe, and reflect cycles.

Based on available data, the following steps define the <u>PLAN</u> for this inquiry cycle	As a result of this plan, the following steps will be taken to <u>ACT</u> on the plan
After taking action on the plan, the following have been <u>OBSERVED</u>	Considering all observations, the following <u>REFLECTIONS</u> will guide our next step(s)

As a result of this cycle of inquiry, the following will be considered as a part of the planning for subsequent inquiry cycles:

APPENDIX D: Document Review Protocol

The protocol that follows represents a tool to ground the analysis of documents related to AIW framework implementation in the research supporting its effective implementation. The protocol includes two separate components. The first addresses the literature reviewed for this study and includes the indicators that the researcher might observe in documents related to implementation of an instructional framework that creates powerful learning experiences for students, to address the instructional core, in a way that is coherent, and leads to equitable outcomes for students. Mindful of these indicators, the researcher that utilizes this protocol will identify the contributing factors that support these indicators in the AIW school settings. The factors that contribute to the existence of these indicators will be noted in the appropriate column.

The second component is based on the Framework of Essential Supports developed by Bryk et al. (2010). The existence of these identified elements support a successful implementation of an instructional framework. The intention of the protocol is to ground the document analysis in these essential elements while noting the factors that contribute to the existence of them. The factors that support these elements appearing in the documents will be noted in the appropriate column.

Document Review Protocol

District/School Name: _____

Date/Time Obtained: _____

Document Name: _____ Source: _____

History of the document's production and use	
Document bias including author bias	
Process of obtaining the document	
Edit or revisions to the original document	

Type of Source Examined:

- Professional development materials
- Meeting agendas
- Mission, vision, or strategic plans
- School improvement plans
- District data profile
- Curricular materials
- Budget materials
- Classroom observation documents

Instructional Framework

	Indicators	Contributing Factors
Powerful Learning Experiences	High-level cognitive work occurring in classrooms	
	Student-driven inquiry is occurring in classrooms	
	Transferability of learning to new and unfamiliar situations	
	Students are constructing knowledge based on lived and learned experiences	
Coherence	A common instructional framework guides curriculum, teaching, assessment, and the learning climate	
	Staff working conditions support implementation of the framework	
	Resources (funding, materials, time, staff assignments) are dedicated to advancing the framework	
	Dedicated process of professional development for teachers to build their capacity within the framework	
	School leaders are involved in the work to advance the aims of the instructional framework	
Equitable Outcomes	Powerful learning experiences are provided across all academic settings and programs	
	Environments where the elements of powerful learning exist include students of color, students of differing abilities, and students experiencing poverty	
	Lived experiences of all students, particularly students of color, students of differing abilities, and students experiencing poverty are elevated in classrooms that represent diversity of students and thought	
	Culturally relevant approaches to instruction exist in classrooms	

Framework of Essential Supports

Essential Element	Essential Element Detail	Contributing Factors
Leadership	School leader that has led through the entire implementation of AIW	
Professional Capacity	High professional capacity characterized by the teacher orientation toward innovation	
	High professional capacity characterized by teacher involvement in professional development both internally and externally	
Student-Centered Learning Climate	Student-centered learning climate characterized by minimal disruptions to the learning environment	
	Student-centered learning climate characterized by a strong orientation toward achievement with minimal disruptions	
Instructional Guidance System	Strong instructional guidance system characterized by the teaching of basic skills	
	Strong instructional guidance system characterized by a strong emphasis on application of learning	
	Strong instructional guidance system characterized by support of teachers to ensure guidance systems inform their decisions in the classroom	

APPENDIX E: Interview Protocol

The protocols included in this appendix will guide the interviews that center around the implementation of AIW. There are four protocols depending on the participant of the interview. The Instructional Leader Interview Protocol, the AIW Institute Interview Protocol, and the Teacher Interview Protocol will be employed in the case study sample. These interviews will be semi-structured as they are guided by some general questions. They are intended to initiate the conversation around AIW implementation and will likely lead to additional questions depending on the responses by the interview subjects.

The PAR Interview Protocol will be used to document formal interviews that occur in the PAR school. Interviews that employ this protocol are unstructured reflective of the iterative and episodic nature of interviews that occur in Participatory Action Research.

Instructional Leader Interview Protocol

District Name: _____ Date/Time: _____

Name/Position: _____ Location: _____

Opening Script: Thank you for meeting with me today to discuss your experience leading the implementation of an instructional framework in your school. Before we begin our interview, I want to confirm that you reviewed the “Consent to Participate in Research” form. Do you have questions about our process or your involvement in our process relative to this document?

Our interview today will last about 60 minutes. While I have scripted some of the questions, I hope our time together can be more conversational. I would ask that you carefully consider your answers knowing that the information you share will be used as data in the research process. It is important to note that I will not use identifying information about you or your colleagues who have assisted in the work you’re doing to implement the instructional framework. I would ask that you please refrain from directly identifying other people in your responses, disclosing confidential or highly sensitive information, or reporting things that you have not seen, heard, or experienced directly. I also plan to use a recording device so that I don’t miss any information you provide. Is this alright with you? Do you have any questions of me before we get started?

Let’s get started.

Introduction on the recording: I am interviewing (name, position) on (date) at (location) and the time is (time).

Background Questions:

1. What is your current position?
2. How long have you been in this position?
3. What other positions have you held in this district or school?

Introduction of the research question: The purpose of this research study is to explore the conditions and practices that promote the successful implementation of instructional frameworks, specifically AIW. I am looking to better understand how these frameworks promote powerful learning experiences for students, create a coherent academic experience for students and staff, and produce equitable outcomes for all students. My questions will center on these general topics throughout our conversation.

1. What has been the AIW journey here at [school name]. {Follow up to probe on key aspects of your conceptual framework.}
2. What practices do you generally see in classrooms that indicate successful incorporation of the AIW framework in classrooms?
 - a. What are teachers doing?
 - b. What are students doing?
3. To what do you attribute the successful teacher implementation of AIW in your school?

The following questions can guide my follow up questioning of the instructional leaders:

4. What did teaching and learning look like in classrooms prior to the implementation of AIW and what does teaching and learning look like in classrooms since you've implemented AIW?
5. What resources did you devote to the implementation of AIW in your school?
 - a. Funding?
 - b. Human resources?
 - c. Professional development?
6. What role do you play in processes related to AIW?
7. What role has AIW played in the development of culturally relevant instruction?
8. How do you see AIW impacting the experience of:
 - a. Students of color?
 - b. Students of differing abilities?
 - c. Students experiencing poverty?
9. If not addressed in #1, Could you touch on aspects of leadership and PD/capacity building that has influenced AIW here at [school name]?

Closing: I appreciate you taking time to share these experiences with me today.

External Partner or Coach Interview Protocol

District Name: _____ Date/Time: _____

Name/Position: _____ Location: _____

Opening Script: Thank you for meeting with me today to discuss your observations of schools that have successfully implemented AIW. Before we begin our interview, I want to confirm that you reviewed the “Consent to Participate in Research” form. Do you have questions about our process or your involvement in our process relative to this document?

Our interview today will last about 60 minutes. While I have scripted some of the questions, I hope our time together can be more conversational. I would ask that you carefully consider your answers knowing that the information you share will be used as data in the research process. It is important to note that I will not use identifying information about you, your colleagues, or school personnel with whom you have worked related to implementation of the AIW framework. I would ask that you please refrain from directly identifying other people in your responses, disclosing confidential or highly sensitive information, or reporting things that you have not seen, heard, or experienced directly. I also plan to use a recording device so that I don’t miss any information you provide. Is this alright with you? Do you have any questions of me before we get started?

Let’s get started.

Introduction on the recording: I am interviewing (name, position) on (date) at (location) and the time is (time).

Background Questions:

1. What is your current position?
2. How long have you been in this position?
3. Tell me generally about your work with this school.

Introduction of the research question: The purpose of this research study is to explore the conditions and practices that promote the successful implementation of instructional frameworks, specifically AIW. I am looking to better understand how these frameworks promote powerful learning experiences for students, create a coherent academic experience for students and staff, and produce equitable outcomes for all students. My questions will center on these general topics throughout our conversation.

1. What are the common factors in school buildings that contribute to a successful implementation of AIW?
2. What factors contributed to successful implementation of AIW?
 - a. Leadership?
 - b. Culture of learning?
 - c. Curriculum/Instructional guidance systems?
 - d. Systems to minimize disruptions to learning for students?
 - e. Parent and/or community support?
 - f. Professional development structures?

Closing: I appreciate you taking time to share these experiences with me today.

Teacher Interview Protocol

District Name: _____ Date/Time: _____

Name/Position: _____ Location: _____

Opening Script: Thank you for meeting with me today to discuss your experience with AIW in your classroom. Before we begin our interview, I want to confirm that you reviewed the “Consent to Participate in Research” form. Do you have questions about our process or your involvement in our process relative to this document?

Our interview today will last about 60 minutes. While I have scripted some of the questions, I hope our time together can be more conversational. I would ask that you carefully consider your answers knowing that the information you share will be used as data in the research process. It is important to note that I will not use identifying information about you or your colleagues with whom you have worked to implement the instructional framework. I would ask that you please refrain from directly identifying other people in your responses, disclosing confidential or highly sensitive information, or reporting things that you have not seen, heard, or experienced directly. I also plan to use a recording device so that I don’t miss any information you provide. Is this alright with you? Do you have any questions of me before we get started?

Let’s get started.

Introduction on the recording: I am interviewing (name, position) on (date) at (location) and the time is (time).

Background Questions:

1. What is your current position?
2. How long have you been in this position?
3. What other positions have you held in this district or school?

Introduction of the research question: The purpose of this research study is to explore the conditions and practices that promote the successful implementation of instructional frameworks, specifically AIW. I am looking to better understand how these frameworks promote powerful learning experiences for students, create a coherent academic experience for students and staff, and produce equitable outcomes for all students. My questions will center on these general topics throughout our conversation.

1. Please tell me about your work here on AIW: your experience in trainings or PD, AIW teams, how it has influenced your teaching. Get an example of change in tasks, assessments, lessons.
2. How would you describe your instructional priorities in your classroom under the AIW framework?
3. How would you characterize your implementation of the AIW framework in all classrooms in your building?

The following questions can guide my follow up questioning of the instructional leaders:

4. What have been the most important supporting factors that have allowed you to successfully implement AIW in your classroom?
5. What role have building leaders played in the successful implementation of AIW in your classroom?
6. What impact does the AIW professional development have on what is happening in your classroom?
7. What role does AIW the instructional approach have on:
 - a. Students of color?
 - b. Students of differing abilities?
 - c. Students experiencing poverty?

Closing: I appreciate you taking time to share these experiences with me today.

PAR Interview Protocol

District Name: _____ Date/Time: _____

Name/Position: _____ Location: _____

Opening Script: Thank you for taking time to debrief your recent experiences implementing the AIW instructional framework. Before we move forward with our conversation, it is important for you to understand that our conversation will be utilized in the data gathering process of a research study around AIW implementation. I have a “Consent to Participate in Research” form for your review. Do you have questions about our process or your involvement in our process relative to this document?

Our conversation today will center on your reflections on recent activities related to the implementation of the AIW framework. Our discussion will be largely unstructured as I have very few prepared questions. It is important to note that I will not use identifying information about you or your colleagues with whom you have worked to implement the instructional framework. I would ask that you please refrain from directly identifying other people in your responses, disclosing confidential or highly sensitive information, or reporting things that you have not seen, heard, or experienced directly. I also plan to use a recording device so that I don't miss any information you provide. Is this alright with you? Do you have any questions of me before we get started?

Let's get started.

Introduction on the recording: I am interviewing (name, position) on (date) at (location) and the time is (time).

1. Think about the recent activities, communications, development opportunities, or conversations about the implementation of AIW. What are you noticing?

APPENDIX F: Observation Protocol

The following protocol will be utilized to record my observations during professional development sessions, leadership meetings, classroom sessions that include AIW, AIW scoring meetings, and other situational interactions among teachers and leaders of AIW. Included in this protocol are three separate sections. The first section will be used to ground my observations in the literature that was used to develop this study. Specifically, the practices and conditions that contribute to powerful learning experiences, coherence, and equitable outcomes. I have detailed the indicators found in the research embedded within each of these larger categories. Using this protocol, I will identify scenarios where I am able to observe these indicators in real world settings.

The second section is grounded in the work of Bryk et al. (2010) and provides indicators of conditions that are happening in school settings that promote the successful implementation of this and other frameworks. Using these indicators, I can better understand the practices and conditions that I observe to be happening in places where AIW is being implemented.

The third section is for observations that fall outside of the scope of the research but appear to have an impact on the successful implementation of AIW. It will be important to consider factors such as these that may be unique to individual school settings.

It is important to note that this protocol can be used in both the case study sample and the PAR sample to record observations. Because the study will focus first on the case study sample, the data gathered there may help to inform observations within the PAR sample. This observation protocol will often be shared with the inquiry team in order to promote successful implementation of the AIW framework at the PAR site.

Observation Protocol

Date of observation: _____ Time of observation: _____

Observation setting: _____

Participants/roles:

Instructional Framework

	Indicators	Observed Scenario
Powerful Learning Experiences	High-level cognitive work occurring in classrooms	
	Student-driven inquiry is occurring in classrooms	
	Transferability of learning to new and unfamiliar situations	
	Students are constructing knowledge based on lived and learned experiences	
Coherence	A common instructional framework guides curriculum, teaching, assessment, and the learning climate	
	Staff working conditions support implementation of the framework	
	Resources (funding, materials, time, staff assignments) are dedicated to advancing the framework	
	Dedicated process of professional development for teachers to build their capacity within the framework	
	School leaders are involved in the work to advance the aims of the instructional framework	
Equitable Outcomes	Powerful learning experiences are provided across all academic settings and programs	
	Environments where the elements of powerful learning exist include students of color, students of differing abilities, and students experiencing poverty	
	Lived experiences of all students, particularly students of color, students of differing abilities, and students experiencing poverty are elevated in classrooms that	

	represent diversity of students and thought	
	Culturally relevant approaches to instruction exist in classrooms	

Framework of Essential Supports

Essential Element	Essential Element Detail	Observed Scenario
Leadership	School leader that has led through the entire implementation of AIW	
Professional Capacity	High professional capacity characterized by the teacher orientation toward innovation	
	High professional capacity characterized by teacher involvement in professional development both internally and externally	
Student-Centered Learning Climate	Student-centered learning climate characterized by minimal disruptions to the learning environment	
	Student-centered learning climate characterized by a strong orientation toward achievement with minimal disruptions	
Instructional Guidance System	Strong instructional guidance system characterized by the teaching of basic skills	
	Strong instructional guidance system characterized by a strong emphasis on application of learning	
	Strong instructional guidance system characterized by support of teachers to ensure guidance systems inform their decisions in the classroom	

Additional observed practices or conditions that contribute to AIW work in school or classrooms

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APPENDIX G: Data Journal

The use of a data journal is a critical element to qualitative methods in general (Merriam, 2009) and also to the PAR process (Herr & Anderson, 2015). The Data Journal Protocol embraces the plan, act, observe, and reflect process that is necessary in PAR inquiry cycles. This type of journaling will be largely focused on my own decisions and the decisions of the inquiry team through the PAR process. Each decision I make, whether alone or with the inquiry team, will be documented along with observed outcomes of the decision. Reflecting on the decision and its outcomes will be critical in developing next steps in a subsequent inquiry cycle process. While the portion of the protocol related to the plan, act, observe, and reflect will be used to document ideas related to AIW implementation, the portion of the protocol labeled “Methodological Considerations” will be used to document, reflect and change (if necessary) processes being used to gather the data. “Analytic Considerations” will be used to identify emerging interpretations, themes, or conclusions as I progress through both parts of the study. This protocol includes each of these critical elements.

Data Journal Protocol

Date: _____

Decision (Plan/Act)	Outcomes (Observe)	Reflect (Reflect)
Subsequent Action Steps		
Methodological Considerations		
Analytic Considerations		

APPENDIX H: PAR Inquiry Team Meeting Protocol

Regular meetings with the inquiry team are at the center of the PAR process. Though many meetings, interviews, and observations will be sporadic and episodic, conducting regular meeting with the inquiry team to evaluate the results of inquiry cycles will be important. The Inquiry Team Meeting Protocol will be used in regular meetings. The protocol is based on the plan, act, observe, and reflect cycle of inquiry. Because these cycles are iterative, each meeting will be constructed to both review a previous cycle while projecting the plan for a subsequent cycle.

Review of the inquiry cycles will occur in three parts guided by this protocol. The first is the part of the protocol titled Data Review and will guide the team through a review of the previously enacted plan and the resulting actions. It will ask the team to make observations and reflect on the results of the plan. Finally, after reviewing the data, the team will collaboratively identify next steps that will inform a subsequent cycle of inquiry.

The second step is to review data that was gathered in the case study sample of this study. The purpose of this step is to review data from a mature AIW school to better promote action steps that inform successful implementation of AIW. Recall, the case study data will have been gathered prior to the beginning of the PAR study. The data gathered from the case study can help to inform the work of the inquiry team in the PAR school.

Finally, in the third step, the inquiry team will review my data journal. This journal will have documented all the decisions and outcomes in the PAR school through the current inquiry cycle. The team will then use this protocol to connect action steps to previous decisions to ensure that they are continuing to advance the process of implementation of AIW

This protocol is based on the work of Lawson et al., (2015). Lawson identifies the following four steps to inform inquiry cycles:

1. Determination of the defining features of the problem(s) being addressed.
2. Determination of efficient and effective problem-solving models and strategies.
3. Determination of potential, replicable operational pathways to desired outcomes.
4. Determinations of special conditions and unique circumstances in local contexts (p. 14).

The protocol encompasses these four steps.

Inquiry Team Meeting Protocol

Meeting date: _____

Team Members in Attendance

Data Review	
<u>Review of Recent Plan (Theory of Action)</u>	<u>Actions Resulting From Recent Plan</u>
<u>Observations of the Actions</u>	<u>Reflections</u>
<u>Subsequent Theory of Action</u>	

Case Study Review		
<u>Conditions/Practices</u>	<u>Corresponding Action Step</u>	<u>Unique Conditions</u>

Data Journal Review		
<u>Decision/Action Step</u>	<u>Outcome(s)</u>	<u>Corresponding Action Step</u>

APPENDIX I: Authentic Intellectual Work Sample Rubrics

Standards and Scoring Criteria for Language Arts Tasks

Standard 1: Construction of Knowledge In Language Arts

The task asks students to organize, interpret, analyze, synthesize, or evaluate information in addressing Language Arts concepts, themes, theories, or issues, rather than to retrieve or report information as previously given, or to repeatedly apply previously learned information, definitions, rules, and procedures.

Demands for any **ONE** of these cognitive operations (organize, interpret, analyze, synthesize, or evaluate information) signifies an expectation of construction of knowledge because each is a departure from reproducing information as is customary in tasks that ask students only to state previously learned information, definitions, rules, and procedures.

Possible indicators of demands for organizing Language Arts information include asking students to compare literary elements in a variety of texts (i.e., fiction, nonfiction, film), draw conclusions based on textual details and experience, synthesize information from multiple sources, or create original works (i.e., fiction, nonfiction, poetry).

Possible indicators of Language Arts interpretation, synthesis, and evaluation include asking students to organize and produce various types of writing (i.e., persuasive, narrative, expository, creative), to consider alternative interpretations of literary texts, to describe an author's use of literary elements within a text, or to use research from a variety of sources to draw conclusions.

A task can be judged to make these demands of students either through explicit written instructions from the teacher (e.g., "How does Bradbury use symbol and imagery to develop theme in *Fahrenheit 451*? Use details from the story to support your answer") or, if instructions are vague, by inferring that the task, even without explicit instructions to organize, interpret, analyze, synthesize, or evaluate information, could be successfully completed **only if** students created a new interpretation or understanding, and not by reproducing an interpretation that they had been given.

SCORE	CRITERIA	NOTES
3	The task's dominant expectation is for students to organize, interpret, analyze, synthesize, or evaluate Language Arts information, rather than merely to reproduce information, or to repeatedly apply previously learned facts, definitions, and procedures.	
2	There is some expectation for students to organize, interpret, analyze, synthesize, or evaluate information about Language Arts concepts, themes, theories, or issues rather than merely to reproduce information.	
1	There is very little or no expectation for students to organize, interpret, analyze, synthesize, or evaluate information about Language Arts concepts, themes, theories, or issues. The dominant expectation is for students to retrieve or reproduce knowledge or understanding that was previously learned.	

Standard 2: Elaborated Communication in Language Arts

The task asks students to express a conclusion or conclusions about Language Arts concepts, literary themes, theories, or issues **AND** to support their conclusions through coherent explanation or reasoning that involves elaborated use of language (written, oral, or other forms of visual/auditory expression), rather than brief declarations.

Through this type of elaborated communication, students are asked to demonstrate understanding of important Language Arts concepts, themes, theories, or issues. A task that asks for extensive factual or content knowledge alone does not ask for understanding expressed through explanations and supported conclusions.

SCORE	CRITERIA	NOTES
3	Full elaboration: The task asks students to express conclusions about Language Arts concepts, literary themes, theories, or issues AND to support their conclusions through coherent explanation or reasoning that involves elaborated use of language rather than brief declarations.	
2	Some elaboration: The task asks students either to express conclusions about Language Arts concepts, literary themes, theories, or issues OR to offer examples, illustrations, details, or reasons, but not both. The task does not clearly call for both a conclusion and an explanation, reasoning, or details that coherently support the conclusion.	
1	Little to no elaboration: The task asks students for very little or no elaborated communication of Language Arts concepts, literary themes, theories, or issues. The dominant expectation is for short declarative statements, fill-in-the blank, multiple choice, or true-false responses.	

Standard 3: Value Beyond School in Language Arts

The task asks students to use a Language Arts concept, literary theme, theory, or issue to clarify, represent, understand, or resolve situations in the world beyond school.

Consider the extent to which students are asked to apply a literary concept, theme, theory, or issue, not whether the content or problem posed seems "relevant" to student interests. While "relevance" can increase student engagement, relevance alone doesn't necessarily require student understanding of how Language Arts knowledge applies to situations and problems in the real world.

For example, suppose students had studied fiction or historical literature that demonstrated themes of "hero" and "victim." The task asks students to apply these themes to describe how someone they know, or a public figure they know about, might embody these themes. Such a task asks students to use Language Arts themes to better understand the world beyond school and helps students understand how academic learning relates to the real world. Tasks scoring the highest also require students to display, exhibit, or demonstrate their work in ways that influence an audience beyond school.

SCORE	CRITERIA	NOTES
4	<p>The question, issue, or problem posed by the task requires students to apply Language Arts concepts, literary themes, theories, or issues to clarify, understand, represent, or resolve situations in the world beyond school. The kind of application requested helps students understand the utility of Language Arts in the real world. Students must display, exhibit, or demonstrate their work in ways that will influence an audience beyond school, for example, by communicating what they have learned to others, advocating solutions to social problems, providing assistance to people, creating products, or conducting performances.</p>	
3	<p>The question, issue, or problem posed by the task requires students to apply Language Arts concepts, literary themes, theories, or issues to clarify, understand, represent, or resolve situations in the world beyond school. The kind of application requested helps students understand the utility of Language Arts in the real world. However, there is no effort to use the knowledge to influence an audience beyond school.</p>	
2	<p>The question, issue, or problem posed by the task asks students to apply Language Arts concepts, literary themes, theories, or issues to clarify, understand, represent, or resolve situations in the world beyond school, but the kind of application requested is not likely to help students understand the utility of Language Arts knowledge in the real world.</p>	
1	<p>The task makes little or no demands for students to apply Language Arts concepts, literary themes, theories, or issues to clarify, understand, or resolve situations in the world beyond school.</p>	

Appendix J: Sample AIW Task – Rock Valley Middle School

Authentic Intellectual Work: *Teacher Task*

Legislative Branch Breakout

Standard 1: Construction of Knowledge

Team Member	Score 3 - 2 - 1
Teacher 1	2
Teacher 2	2
Teacher 3	2
Teacher 4	2
Teacher 5	2
Teacher 6	2
Teacher 7	3
Team Consensus Score: 2.5	


-We love the fun activity to introduce key vocabulary for your unit. The breakout is such a creative way to have students think critically.

-How can we get students to spend more time working through the story and not just jumping into the breakout?

-Suggestion: Maybe make the story completely separate? Print the story so they have to finish it together before even entering the digital breakout?

Standard 2: Elaborated Communication

Team Member	Score 3 - 2 - 1
Teacher 1	2
Teacher 2	3
Teacher 3	2.5
Teacher 4	2
Teacher 5	2

Teacher 6	2	
Teacher 7	2	
Team Consensus Score: 2		

-Students are asked to offer examples but not necessarily a full conclusion in addition to this, with reasoning.

-This score could be higher if the directions were rewritten to include both a conclusion as well as examples.

-Suggestion: have students complete this individually next time instead of with their partner

Standard 3: Value Beyond School

Team Member	Score 4 - 3 - 2 - 1
Teacher 1	3
Teacher 2	3
Teacher 3	3
Teacher 4	3
Teacher 5	3
Teacher 6	3
Teacher 7	3
Team Consensus Score: 3	

-This activity does have value beyond school, however there is no attempt to influence a wider audience.

-We would really consider trying to have a politician as a cameo at the end, but that is just a bonus.

Authentic Intellectual Work: *Student Work*

Standard 1: Construction of Knowledge

Team Member	Score 4 - 3 - 2 - 1
Teacher 1	3
Teacher 2	3
Teacher 3	2
Teacher 4	3
Teacher 5	2.5
Teacher 6	
Teacher 7	2
Team Consensus Score: 3	

- With better directions and expectations for the conclusion piece of this activity where students need to give examples of how the people have the power in our government, we hope this score could go up in the future
- It's hard to really gauge sometimes when looking at multiple pieces of student work that encompass a spectrum

Standard 2: Conceptual Understanding

Team Member	Score 4 - 3 - 2 - 1
Teacher 1	3
Teacher 2	2
Teacher 3	2
Teacher 4	2
Teacher 5	2
Teacher 6	
Teacher 7	2

Team Consensus Score: 2	

- Some limits in understanding are expected due to this being a very introductory activity
- Understanding went up after the class discussion
- Suggestion: add some wording in the breakout that points a little more to how people have the power in our government?

Standard 3: Elaborated Communication

Team Member	Score 4 - 3 - 2 - 1
Teacher 1	2
Teacher 2	1
Teacher 3	2
Teacher 4	2
Teacher 5	2
Teacher 6	
Teacher 7	2
Team Consensus Score: 1.5	

- This was varied over the student work in general. Many students provided some elaboration but did not support their examples or write in a full sentence.
- Adjusting instructions and the way we collect this next year may help (Canvas instead of half sheet, done individually)

Authentic Intellectual Work: *Instruction***Standard 1: Higher Order Thinking**

Team Member	Score 5 - 4 - 3 - 2 - 1
Teacher 1	3
Teacher 2	3.5
Teacher 3	3.5
Teacher 4	3.5
Teacher 5	3.5
Teacher 6	3.5
Teacher 7	4
Team Consensus Score: 3.5	

-Students required to use a lot of LOT while going through the breakout mostly due to this being an introductory activity for vocabulary.

-Final activity requires HOT.

Standard 2: Depth of Knowledge and Student Understanding

Team Member	Score 5 - 4 - 3 - 2 - 1
Teacher 1	2
Teacher 2	3
Teacher 3	3
Teacher 4	3
Teacher 5	3
Teacher 6	3
Teacher 7	3

Team Consensus Score: 3	

-Students seem to have a decent grasp of vocabulary after the activity but will need further instruction and application to fully understand.

Standard 3: Substantive Conversation

Team Member	Score 5 - 4 - 3 - 2 - 1
Teacher 1	3
Teacher 2	3
Teacher 3	3
Teacher 4	3
Teacher 5	3
Teacher 6	3
Teacher 7	4
Team Consensus Score: 3	

-Varied depending on class and which teacher observed which class

-Some students did great collaborating and elaborating communication while working on this but room for improvement here.

-How can we encourage more communication/collaboration? Intentional group pairing? Next time we suggest two per group - only 3 if needed.

Standard 4: Value Beyond School

Team Member	Score 5 - 4 - 3 - 2 - 1
Teacher 1	3
Teacher 2	3
Teacher 3	3
Teacher 4	3
Teacher 5	3
Teacher 6	3
Teacher 7	3
Team Consensus Score: 3	


-No effort to influence an audience beyond the classroom (but we think that doesn't necessarily fit for this activity)

-Most students seemed to understand the value of the application of this vocabulary and these topics beyond school. Tyler did underline it in several ways throughout instruction at the beginning and end of activity.

Appendix K: Sample AIW Instructional Task – Beamon Community Secondary School

Wilton Community School District


Authentic Intellectual Work for Student Work

Teacher: 	Class: English II	Grade: 10
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Title of Lesson:	<i>Of Mice and Men On Trial!</i>
Standard(S) Essential Concept and/or Skill:	<p>1. Use data, quotes, and extended logic to support their ideas</p> <ul style="list-style-type: none"> ● W.9-10.9 - Draw evidence from literary or informational texts to support analysis, reflection, and research. ● W.9-10.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. <p>2. Collaborate with teams and communicate their ideas thoughtfully:</p> <ul style="list-style-type: none"> ● SL.9-10.1 - Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
Essential Question:	How can I compare the situation from the novel to real life examples while balancing legality and morality? What is the proper solution and can you justify your opinion with quotes, data, and statistics?
Check which applies: Concept _____	Theme_X_ _____
Problem: _____	
Process the students followed to complete the work:	
Where does this fall in the unit:	Beginning Middle <input checked="" type="checkbox"/> End
Bring examples samples of student work with you.	

On Trial! - Of Mice and Men Final Assessment

You will put either Lennie and George on a 'moral trial', taking in the ideas of law versus morality. In this, you will decide if you think the characters are guilty or innocent in the eyes of morality. You can choose one of the two options below:

Lennie: Lennie kills Curley's wife in the novel. Some believe this was an accident or that his mental disability altered this. Do you think Lennie deserved to die or be punished for his killing? Do you think he is morally innocent because he did not know better or because it was an accident? Support your answer using direct quotes from the novel. Compare and contrast Lennie's killing of Curley's wife to other instances in real life (such as mental incompetence/illness in trial, accidental homicide, and/or murder vs. involuntary manslaughter).

George: George killing Lennie is referred to by many as a 'mercy-killing', similar to the killing of the old dog earlier in the novel. Do you think George's shooting of Lennie was morally sound because it saved him from Curley or jail? Do you think George was wrong to kill him and should have helped him escape? Do you think George should have let the law handle it? Support your answer using direct quotes from the novel. Compare and contrast it to other 'mercy-killings' in real life (such as euthanasia, killing of old animals, or justifiable homicide, etc.).

Essays should...

- **2 pages minimum** in length, double spaced
- MLA format with proper citations
- Incorporate a minimum of 2 direct quotes from the novel
- Incorporate data/information from 2 outside/external sources
- Use proper grammar, capitalization, punctuation, and spelling
- Include an introduction, conclusion, and thesis statement