

Capital for Teacher Leadership

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The Influence and Development of Capital for Teacher Leadership

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The Influence and Development of Capital for Teacher Leadership

This study grows out of collaboration between teachers, school leaders, district-level personnel, researchers, and curriculum developers. These stakeholders have worked together within a continuous improvement framework to design, implement, and scale a school reculturing innovation. In this paper we examine teacher leadership and participation in the design and implementation efforts. More specifically, we explore the role of existing leadership skills amongst three teams of teachers and the extent to which teachers' participation in the process develops leadership abilities. Some of the specific issues we explore are the composition of the teams, how they were initially formed, how they saw themselves throughout different stages of the work, how leadership and possession of forms of capital changed for each of the teams, and whether or not gaps in leadership and possession of capital increased or decreased over time. We do this by identifying key junctures in their work and by assessing the levels of human, social, cultural, and economic capital at each point in time.

We posit that the teachers who engaged in these processes brought varying levels of capital (human, social, cultural, and economic) to the effort from the very beginning, which influenced their ability to successfully engage in the endeavor. At the same time, ongoing participation in the processes also led to the development of these forms of capital. These forms of capital are important because they are closely related to the construction of teacher leaders (Spillane, Hallett, & Diamond, 2003). By tracing the efforts of the teams we demonstrate how varying levels of capital both influenced and were influenced by such engagement.

The overarching questions we address are:

1. How do existing levels of human, social, cultural, and economic capital influence teachers' experiences of partaking in the design and implementation processes?

2. To what extent does participation in these processes develop forms of capital and subsequent leadership ability?

Literature Review

Why Teacher Leadership is Important in the Context of School Reform

A substantial body of research has shown education reforms often lack success partly because of the failure to distribute leadership, particularly instructional leadership, among school faculty and staff (Camburn, Rowan, & Taylor, 2003; Hallinger, 2003; Harris, 2003). Pre-existing conditions within schools and their faculty can work for or against education reforms.

Expectations of teacher leadership are often not specified by reformers, the existing or newly created leadership seldom receives explicit or in-depth training, and leaders often work in isolation without organized time to meet and collaborate (Wynne, 2001; York-Barr & Duke, 2004). As a result, teacher leadership and capacity are often not developed, or if they are, it is haphazard and undirected. As teachers are often the implementers of school-level reform, their leadership abilities are essential to how innovations are implemented (Camburn, Rowan, & Taylor, 2003; Datnow & Castellano, 2001; Muijs & Harris, 2006).

Developing Teacher Leadership

Given the recognized importance of teacher leadership in school reform, attention has turned to how to develop teacher leadership (Harris, 2005; York-Barr & Duke, 2004). These efforts usually take one of two approaches. First, there are efforts that focus on the human capital and skills of individual teachers (i.e., potential or emerging teacher leaders), and engage in activities designed to build their individual capacities (Katzenmeyer & Moller, 2009). For example, many universities now offer certification or masters programs in teacher leadership

(York-Barr & Duke, 2004). Second, there is recognition that conditions inside schools can facilitate or impede teacher leadership, such as a general culture of trust in the school, principal support, and the existence of structures through which teacher leadership can be enacted (Mangin & Stoelinga, 2007; York-Barr & Duke, 2004). Our examination of the process of building teacher leadership both builds on these prior efforts and extends them by focusing not just on the individual teacher leader but on the ability of teachers as a collective to lead. We also focus not only on principal support of teacher leadership but on how teacher leaders interact with their colleagues and how they perceive that leadership ((Katzenmeyer & Moller, 2009; Mangin & Stoelinga, 2007).

Human, Social, Economic and Cultural Capital

Spillane et. al (2003) studied the instructional leadership at eight urban elementary schools. Based upon interviews and observations they argued that such leadership was constructed “through an interactive process in which followers construct others as leaders” (p. 1) on the basis of relevant forms of capital. Similarly, we focus on the possession of human, social, cultural, and economic capital as essential ingredients in fomenting leaders’ ability and legitimacy to occupy such positions. Here we briefly define these forms of capital as they pertain to teacher leaders. *Human capital* is comprised of knowledge, expertise, and skills (Becker, 1964). Administrators and others in formal positions of leadership are often assumed to possess elevated levels of human capital, though Spillane et. al (2003) find that teachers often attribute leadership status to peer teachers based on human capital at a higher rate than they do to those in formal leadership positions. *Social capital* is conceptualized as networks and connections as well as trust (Coleman, 1988; Portes, 2000). We formulate social capital as formal and informal

networks, and trust needed for working relationships both within and across schools (Penuel, Riel, Krause, & Frank, 2009). *Cultural capital* was originally developed to emphasize the intergenerational transfer of cultural tastes and mannerisms as a mechanism for social reproduction (Bourdieu, 1977, 1984), and has been expanded to describe how interactive styles are advantageous in particular settings (Lamont & Lareau, 1988; Lareau, 2000; Calarco, 2011). Spillane et. al (2003) found cultural capital was cited most frequently by teachers when discussing leadership traits of administrators. Finally, *economic capital* is both money and material resources that leaders can make available to others.

Context

This paper is situated in the context of developing an intervention to be implemented in three high schools and scaled up within a large urban district. The intervention was developed through the collaboration of researchers, program developers, district personnel and teachers. The district in which this work takes place is one of the largest urban school districts in Texas, serving approximately 70,000-100,000 students. These students were predominantly Hispanic (50-75%), African American (20-35%), and economically disadvantaged (65-80%). The three schools serve primarily low-income and racial minority students, reflecting the population of the district.

The intervention is a program whose goal is to develop Student Ownership and Responsibility for students' academic success (SOAR). The work is comprised of three phases: design; developing, planning and piloting; and implementation. We refer to the design phase throughout the paper as Phase 1; Phase 2 is the development, planning and piloting phase; and Phase 3 is school-wide implementation.

Phase 1 lasted approximately 7 months, beginning in February 2013 and culminating in a summer meeting in August 2013. During Phase 1, researchers and program developers worked to create a unified body amongst the District Innovation Design Team (DIDT). Facilitators repeatedly emphasized that the DIDT was a district-wide team, designing one prototype for the district. Facilitators explained, “we are one district team,” and that the DIDT should think about “the average FWISD student,” not just students on their campus. Over this seven-month period, the DIDT met a total of six times with researchers and coordinators. Each meeting was two days in length. The final meeting however, marked the commencement of Phase 2.

In Phase 2, School Innovation Design Teams (SIDTs) were established in each of the three schools; the teams consisted of several individuals, nearly all of whom were teachers. The SIDTs were charged with testing and adapting the prototype lessons that the DIDT had developed, as well as planning for school-wide implementation for the subsequent year. This included developing SOAR beyond the initial prototype and tailoring it to each school's unique context. During the 2013-14 school year, the SIDT had six face-to-face meetings that lasted one or two days, four webinars, and two after-school meetings.

In Phase 3, the 2014-2015 school year, the SIDT at each school implemented school-wide innovation practices. They engaged in three PDSA cycles, collected data about the innovation practices, and refined them according to the feedback, or made course corrections as needed. From October 2014 to June 2015, the SIDT had seven face-to-face meetings that lasted one or two days each. This paper describes and analyzes the development of human, social, cultural and economic capital of the SIDT through these three phases.

Data and Methods

We draw upon data collected over a 2.5 year period, from February 2013 through June 2015. The data include (1) interviews with members of the school-based design teams (i.e., teacher leaders) in summer 2013 and summer 2014 (during the design phase); (2) interviews with administrators, members of the school-based design teams, and teachers in each school in December 2013 (prior to implementation), October 2014, and April 2015 (both after implementation); and (3) observations of joint team meetings, which occurred monthly in 2013-14 and quarterly in 2014-2015.

We classify the data into two categories, which we refer to as “process data” and “fieldwork data”. Interviews with team members in summers 2013 and 2014, and observations of team meetings in 2013-14 and 2014-15 comprise the process data. Interviews with administrators, school-based team members, and teachers from December 2013, October 2014, and April 2015 were collected during site visits during which three researchers spent four days in each of the schools. All of this data is grouped into three distinct phases. Phase 1 covers the work of the DIDT prior to the introduction of the SIDTs to the process. This phase ran from February 2013 through August 2014. Phase Two began with the incorporation of the SIDTs into the process in August 2014 and ran through June 2014. Phase Three captures the 2014-15 schoolyear when the SIDTs implemented SOAR in their schools.

A qualitative case study design (Lincoln & Guba, 1985) allows us to probe how teachers involved in the design and implementation of a schoolwide reform used existing forms of capital and further developed these forms through their participation in the work. The process we detail below allowed us to query the data by form of capital and by school for each phase of the work.

Our results allow us to summarize evidence regarding each form of capital at each stage of the work by school. We are then able to discern patterns over time within and across schools.

The process data is comprised primarily of data collected during in person meetings of the DIDT and SIDTs over the 2.5 year period. During these meetings researchers collected artifacts and participant feedback forms, observed and wrote fieldnotes as well as completed structured end of session reflection forms. Furthermore, all meetings were audio recorded. The recording of the sessions led to the capture of hundreds of hours of audio over the course of the project. The research team went through a systematic process to reduce the overall amount of data. For instance, because much of the work was conducted in small groups, and there was a recorder on each table to capture what was said in each group, there was significant overlap in the content of the recordings, particularly when meeting facilitators were presenting. This data reduction process entailed researchers listening to the audio for each day and completing a *DIDT/SIDT Activity Reflection Form (DARF)*.

Process data were analyzed for the design, development, and implementation phases, and summary memos were written that describe evidence from each phase guided by the project's framework. DARFs, artifacts, feedback forms, researcher reflection forms, fieldnotes were coded according to analytic framework and daily summary memos are written for each day of meetings. Similar to the in-person meeting data collection, during the check and connect calls and webinars, running notes were kept, and a summary memo was created aligned to the analytic framework. All summary memos were then further summarized in the final process memo. The final summary memo for each phase were reviewed through a process where individual researchers were assigned particular sections to write and others reviewed the sections. Summary

memos from the sessions as well as the summary memos were then coded again by form of capital and school.

Fieldwork data were transcribed and coded by the research team following each visit. The coding framework employed was based on a schema drawn from the project's larger framework for quality implementation. In each instance the coding frameworks consisted of several *a priori* codes in addition to emergent codes. The coding was iterative, with members of the research team comparing coding to ensure the consistent understanding and application of codes (Corbin & Strauss, 2008). Following the coding of the fieldwork data, the team wrote summary memos for each visit, summarizing the data coded for each code. The memos are detailed and include quotes. The memos are organized by school, with bullets to make comparisons between schools.

As with the process data memos, there was a review process for the fieldwork data memos as well. Different members of the team drafted a memo for each code, another reviewed it to check that claims were supported by evidence, and that it is clear. The memos are then revised. We rely upon these memos from relevant analytical codes that capture themes such as the dynamics of the teams, the capacity of the teams, the supports provided to the teams, as well as supports provided by the teams to teachers in their respective schools. Just as we did with the process data memos, we coded the fieldwork memos by each of the forms of capital and by school.

Operationalizing the Forms of Capital

In this section we briefly describe how we have operationalized each human, social, cultural and economic capital within the context of the project. We provide a general description of what would indicate high levels of each form of capital, and then provide some specific

examples of what each might look like. These definitions also serve as the basis for the rubric we developed to formally rate each SIDT over time (See Appendix for the rubric).

Human Capital

Within the context of this work, human capital encompasses the knowledge, expertise, and skills required to design, develop, implement and refine the SOAR innovation. Possession of human capital is characterized by the SIDTs' ability to anticipate teachers' limitations/restraints in time, skills, expertise, and the operational supports teachers need to implement the innovation. The team must also be able to articulate the "why" and not just the "what" of the innovation. Lastly, they must have the knowledge of how to leverage existing organizational structures to support the work, such as building on or leveraging existing programs. Under PDSA, human capital includes the ability to describe, define, design and implement PDSA cycles. Furthermore, it includes the capacity to collect and analyze data, make actionable conclusions from the data, revise innovation practices based on findings, and document the PDSA cycles and subsequent actions. Under PD and supports for teachers, human capital includes the ability to develop and present PD, materials (e.g., PowerPoints, handouts) and supports for teachers such as coaching and modeling of practices.

Social Capital

Social capital is characterized by formal and informal connections between the SIDT and teachers, administrators and district personnel. They must be able to develop and use lines of communication with stakeholders to foster the trust that comes with these social ties. Ultimately, the SIDT can work together to leverage these social connections to engage various stakeholders in SOAR activities, or to obtain resources and expertise for SOAR. Under PDSA, social capital

consists of two main parts: the ability to distribute tasks among SIDT members, and the ability to gather feedback from non-SIDT stakeholders (administrators, teachers, students, etc.) through formal and informal means. In terms of the first ability, there must be social cohesion among SIDT members to allow them to work together, delegate key tasks, and support each other in doing PDSA work. In terms of gathering feedback, SIDT members must be able to tap into social connections to collect formal and informal feedback. Even when the feedback is solicited formally via surveys or focus groups, teachers and staff must be willing to respond to the questionnaires and speak out in focus groups. In addition, SIDT members must have informal and formal connections to teachers to run effective PD and to engage teachers on a personal level. These social connections can have a substantial contribution to whether teachers are willing to implement the lessons and use the materials provided by the SIDT. SIDT members can and should also use their connections to invite other teachers and support personnel to get involved in development and training.

Cultural Capital

The critical component of cultural capital is that the SIDT is seen as a legitimate leadership body with the autonomy and decision-making authority to engage in SOAR-related activities. The SIDT must have or assume the authority to request time, money, and support from the administration or district personnel to effectively develop and deliver SOAR and associated PD and other forms of support. Under PDSA, cultural capital revolves around the group having a sense of autonomy and decision-making authority to carry out the components of PDSA cycles. The SIDT must have members who are willing to champion the PDSA process to provide cultural legitimacy that PDSA is a part of work at the school, or that it is part of the norms.

Relatedly, the SIDT must feel that they have the right to request time, materials and other resources such as school data from the administration to carry out PDSA. Both inside and outside of school, the SIDT should be seen as a legitimate entity to gather data on how the innovation is going, to report on what has been learned, and to enact changes based on the findings to further develop the innovation. The lynchpin to cultural capital under PD is whether the SIDT is seen as a group of legitimate leaders in the school. Both teachers and administrators must view them as leaders, which gives them the legitimacy to lead PD, PLCs, and trainings. Implicitly, the SIDT members are trusted and allotted time by the administration to deliver PD, particularly the ones later in the year, if they have demonstrated that they will use the time well in delivering the PD and developing a worthwhile innovation.

Economic Capital

Economic capital centers on the SIDT's ability to obtain and leverage time, money, and materials to engage themselves and others in SOAR-related activities. This may include money for substitutes or release/planning periods so they can plan lessons, PD, or PDSA cycles, time in the master schedule to deliver SOAR to students, and time to provide teachers with PD. For instance, economic capital under PDSA involves having the time and material resources to engage in PDSA. The SIDT must be provided the time and any other resources and materials necessary to gather stakeholder feedback and engage in PDSA cycles, and be able to use these resources to successfully carry out PDSA-related activities. The SIDT is able to incentivize teacher participation by providing material resources, making the workshop count as professional development credits, or other economic incentives to participate.

Results

In this section we present findings for the four forms of capital during each of the three phases. Using the rubric we developed based on our operationalization of these types of capital we also provide an overall rating for each phase. In Phase 1, differences between the three schools were typically undiscernible. We therefore describe Phase 1 without separating the different schools. The exception to this is the case of human capital where some clear differences emerged by school. In such instances those differences are described within the section on Phase 1. In Phases 2 and 3, specificities by school are present; therefore we group these latter phases by school to demonstrate change over time. For Phases 2 and 3, we rate each school according to our rubric as well. Again, this meant that teams could receive a numerical score of 0-4, where 0 indicated absence of capital, one indicating limited possession of, or ability to leverage capital, 2 denoting adequate proficiency or ability to leverage the form of capital, 3 proficiency, and four excellence.

Human Capital

All Schools - Phase 1

In Phase 1, the members were being introduced to the innovation design and development process and their roles as DIDT/SIDT. Moreover, this introduction and the ensuing discussion happened mostly in large groups and not separated by school. As a result, there was little differentiation in the SIDT's human capital at the school level. At the start of Phase 1, each SIDT started with little knowledge of the innovation, how to implement PDSA, and how to create and adapt professional development for teachers that would support SOAR. Accordingly we rated each school team as a zero according to our rubric. It should be noted, however, that many SIDT

members at Wheatley had been a part of a school-wide initiative prior to SOAR, and they have had experience in leading professional development to the faculty. This became apparent in how the SIDT at Wheatley were involved in the sessions in Phase 1 and they were able to contribute more to the discussion. A few SIDT at Cervantes and Walker had some vague ideas of what the innovation entailed and what needed to be done as part of the innovation process, but as a team, they were limited in their skills and expertise. For Wheatley, some SIDT members demonstrated they had an understanding of the innovation process as well as what needed to be done to get school initiative off the ground. As a result, by the end of Phase 1, we rated the SIDT at Wheatley between Limited and Adequate (1.5) on the human capital rubric while Cervantes and Walker received a rating of Limited (1).

Members have a broad understanding of student ownership and responsibility, the main ideas of the innovation, but they struggled to understand the core elements and their place in the design process. During this phase, members were often disengaged when they looked at data that were not related specifically to their school or how the content of an activity or discussion could be integrated into their day-to-day practices or existing district policies. They were also frustrated when they felt that they had missed out on parts of the design process when different tasks were given to different groups. As the members learned and developed the human capital to engage in the process, they strongly needed the materials to be relevant to what they knew best, their particular school, and they needed to see how the work they did in one area was highly connected to the other pieces aimed at developing a prototype that could be used to help their students.

Members became more comfortable with the data analysis protocol over time, despite continued concerns about the reliability and generalizability of data they were analyzing. By the

end of the phase, members generally agreed that they understood the roles expected of them in the DIDT design phase and in Phase 2 with SIDT piloting, and they understood their role in Phase 1 to be centered around communicating to their schools and stakeholders, collaborating with the district team and their school, and contributing to the design. Members reported gaining a better understanding of how to use effectively gather, analyze, interpret and use multiple sources of data to understand district needs.

Overall, each school team was limited in what they were able to do. They felt that they were able to use the design principles and processes to generate solutions, but they had concerns that they had not sufficiently developed the skills needed to guide implementation and adaptation of the prototype. They reported increased in their capacities to implement the prototype and they felt prepared to guide implementation and adaptation at the innovation schools. However, despite high self-assessment of what they learned and their preparation, evidence from feedback forms, cognitive interviews, and member comments while participating in activities suggested it was unclear the extent to which members understood their roles and what implementation would entail. The evidence suggested that they had some broad understanding of the design and the prototype but their understanding of the details of implementation and their roles in testing and refining the prototype were vague and varied from school to school and from member to member. Since the innovation itself was not a pre-defined intervention, this lack of clarity and lack of specificity of the prototype contributed to members' uncertainty about what was needed to implement the innovation.

Wheatley High School – Phase 2

In Phase 2, the SIDT engaged in whole group discussions as well as school-based discussions. As a result, there was a wealth of information about how each school team responded and developed during this phase. In particular, there was sufficient evidence to differentiate among the school teams. Wheatley has a strong history and culture of cultivating leadership amongst its teachers, and that these teachers have a track record of successfully leading school wide initiatives. More specifically, these teachers have also had experience in leading professional development to the faculty. During this phase, the SIDT from Wheatley showed that they could link the two key elements of SOAR, growth mindset and problem solving, they could do PDSA by testing lessons and adapting them based on findings, and finally, they could embed the SOAR innovation with the previous school-wide initiative. Consequently we rated the SIDT at Wheatley between Adequate and Proficient (2.5) on human capital in this phase.

Throughout Phase 2, cognitive interviews provided evidence that there were great variations in each school in regards to their depth of understanding of the overall concept of SOAR and the two main components of growth mindset and problem-solving. However, participants from Wheatley and Cervantes provided more detailed descriptions of SOAR and their innovations than participants from Walker. For example, SIDT 1302 could describe different ways in which SOAR, growth mindset and problem-solving were related to each other and how growth mindset and problem-solving formed the basis for SOAR. When the SIDT were given the initial growth mindset lessons to be piloted, most of the SIDT members at Wheatley tested the lessons and made adaptations. They took piloting seriously, and they raised the

concerns that the lessons needed school wide piloting and implementation to see the change in student mindsets. Moreover, the SIDT also engaged in a full PDSA cycle on a problem-solving process with ten non-SIDT teacher volunteers who piloted the problem-solving process and gave feedback to the SIDT.

In addition to having specific knowledge about growth mindset and problem-solving and engaging in a full PDSA cycle, the SIDT at Wheatley were also keenly aware of the challenges of implementation from past experience. One SIDT member was clearly attuned to issues that arise through the implementation process and was thinking about buy-in, the integration and alignment of SOAR components with everything else that goes on in the school, piloting programs, and improving them overtime after initial implementation. For instance, this member said that “I imagine that at many other schools you might see a presenter come in from outside, you might see the administrative staff stand up, and talk, and present things, and there is some of that for sure, but a lot of what goes on actually is developed by teachers because we just realize here are things that we want to address and here are some things that we think we can develop for ourselves...” Another SIDT member also spoke of the experience of integrating a previous reading initiative throughout the curriculum, and attributed some of the successful implementation of that initiative to creating a common language throughout the school. Similarly, they felt that this would be an important strategy for implementing SOAR, and ensuring it had sticking power. Moreover, they talked about embedding SOAR with the previous initiative to make it coherent and not another new program. They also saw PDSA reinforcing the culture of continuous improvement that had developed with the prior initiative.

Wheatley High School - Phase 3

In this phase, the SIDT provided PD for teachers and engaged in three PDSA cycles. Throughout the school year, they demonstrated that collectively they had most of the skills and expertise needed to do PDSA and PD. However, they still needed support from the program developers and researchers and some of them felt that they did PDSA in a compliance manner to appease the developers and researchers instead as a tool to adapt and refine their innovation practices. As a result, we rated them as Proficient (3) on the human capital rubric.

At the beginning of the year, the SIDT provided training for teachers during an in-service day and at staff meetings. The PD that the SIDT provided went over what the teachers should cover each period on the second day of class as well as the three week grade reporting process. They also provided the teachers all of the lessons with clear and direct directions and they modeled for the teachers during a staff meeting. The administrators and school staff generally felt that the PD went well and that the SIDT were capable of leading the implementation of SOAR. The SIDT described themselves as being prepared to lead implementation due to their previous experience with the prior school-wide initiative and they generally felt that they had a lot of expertise within the group. In particular, administrators, SIDT members, teachers, and researchers at various points indicated that one SIDT member was quite capable of data collection and analysis.

In terms of the SIDT members' roles in PDSA, there were instances at Wheatley where the entire team clarified their role. There was a series of discussions in the fall as to who was responsible for tabulating and analyzing any data from PDSA. Both the researcher on the call and the facilitator emphasized the importance in their team completing all data-related activities. This

shifted the discussion to making data collection manageable for the team. It was emphasized that the researchers and facilitators would still be available to help figure out what types of data to focus on and how to analyze any data that was collected. SIDT members commented on the need for more training related to data to help further develop these capacities. However, some members approached PDSA as a compliance activity and less as a continuous improvement tool.

For each PDSA cycle, there was supposed to be a focus to study and data collection. The focus of the first PDSA cycle at Wheatley was on the activities the SIDT did at the beginning of the year, which involved integrating a prior reading initiative with growth mindset on the second day of school, introducing the problem-solving framework, introducing a behavioral reflection form, and creating a common culture and language to change student and teacher mindsets. The focus of the second PDSA cycle was somewhat vague, but it was aimed at improving a graphic chart that provides students visual cues of reaching their class performance. In the third cycle, they focused on analyzing the impact of the graphic chart on student passing rates. They specifically chose to reiterate and refine the innovation practices even though the facilitators encouraged them to test new practices instead. They were, however, inconsistent in their ability to complete the PDSA process, focusing more on the planning and doing part and less on the study and reflect part. As a collective, the SIDT demonstrated they had most of the skills to do PDSA, however, their aims were not always clear, some members still did not understand the goal of PDSA, and they still needed support from the facilitators and researchers.

With the data they gathered from the PDSA cycles, which indicated that the introductory lessons for students from last year generally went well, the SIDT decided that they would repeat their second day of school “conspiracy” for the students, which included introductions to student

cultures and norms at the school, goals and problem-solving, communication, study habits, life skills and transitions and self-discipline. For teachers, the SIDT learned that the teachers felt a lack of an overarching picture that the program started strong but then tapered off over time, and that when new pieces were added they seemed rushed and poorly introduced at times. As a result, the SIDT decided that teachers need more training and support and that the prototype innovation practices and lessons for students should be continued next year. For the teachers, they decided that they would have six profession development lessons when introducing SOAR: (1) motivation for the innovation; (2) teacher leadership for change; (3) continuing development of staff culture; (4) student-teacher and teacher-administrator relationships; (5) teacher cultures and norms at the school; and (6) new teacher classroom management. An SIDT member noted that the SIDT team had heard from teachers that they wanted more ongoing training throughout the year to reinforce the initial PD at the beginning of the year, “I think some of the feedback we’ve gotten from teachers is that they felt like the roll out was great that first day, but that they needed some additional reinforcement, more than what we were able to provide, and it wasn’t like a criticism on their part, it was just they felt like they wanted to be more -- maybe they wanted some more ideas and some more support and all that.” The same SIDT member also noted the tension of wanting to provide additional training, but not wanting to overwhelm the teachers and make SOAR into a burden for them.

Cervantes High School - Phase 2

Similar to Wheatley in some ways, the SIDT at Cervantes had a good understanding of growth mindset and problem-solving and how they are related to SOAR. Moreover, they also engaged in a PDSA cycle to test the lessons and adapt them for their own needs. However, they

did not go through the entire PDSA cycle like the SIDT at Wheatley and they did not have a plan to embed SOAR with an existing school initiative, but they had a different plan and goal for the lessons and implementation. They wanted to have the faculty buy-in by getting them involved in the lesson planning and prototyping. To a large degree, they were able to accomplish this goal. The human capital at Cervantes was not as high as it was at Wheatley, but they were able to leverage their social capital along with their human capital in order to pilot the lessons and adapt them. Accordingly, we rated them as Adequate (2) on the human capital rubric.

The SIDT at Cervantes demonstrated a grasp of the components of the SOAR innovation, and in regards to implementation, they articulated that this innovation will need to be school-wide, well understood by teachers, and have high teacher buy-in, and they also discussed different ways to overcome implementation hurdles. They felt that the best way to introduce the innovation to teachers successfully was to have a group of early adopters teach the lessons and then present the findings, successes, and failures to the faculty as a whole. They first talked to their faculty about what their kids need, split up by grade levels and came up with a score and sequence of what they could do, shared this with the faculty at a faculty meeting, and sent out a lesson template for teachers to get lessons for each content area. Moving forward, an SIDT member said there was a strong need to develop these lessons and the PD for these lessons.

Working towards that end, the SIDT at Cervantes identified teachers who they wanted to have as their early adopters to work through the introductory lessons before the end of the year. They implemented the embedded practices first before the early adopters tested them out. They emphasized how they would go about building buy-in among their staff and that this way critical to the innovation at their school. They talked with the “late majority” teachers to adopt the

innovation practices, focusing on these teachers' concern with student apathy. Before the end of Phase 2, an SIDT member from Cervantes said they planned to invite all teachers over the summer to participate in modifying and developing the lessons to help increase buy-in among the faculty. As a group, they were able to corral a substantial portion of their administrators and fellow teachers to meet during the summer and develop the lesson plans for the upcoming school year of Phase 3.

Cervantes High School - Phase 3

In this phase, similar to Wheatley, the SIDT provided PD for teachers and engaged in three PDSA cycles, and they demonstrated that they had most of the skills and expertise needed to do PDSA and PD. And similarly, they still needed support from the program developers and researchers. As a result, we rated them as Proficient (3) on the human capital rubric.

At the beginning of the year, similar to Wheatley the SIDT at Cervantes presented the innovation practices to the teachers, which included lesson plans on growth mindset, grade reporting, and advisory teachers calling parents for important updates. The SIDT provided the teachers with a large binder complete with the introductory lesson plans and materials to be done. Similar to Wheatley, the administrators and teachers thought that the SIDT was capable of leading the implementation, and the SIDT members also described their ability to lead implementation to previous activities within the school. There were various positive comments about the implementation; one teacher in particular said that, "I think they did the right thing this year, in giving us — giving it to us step by step. And the reason I say that is because teachers already have enough preps on their hands". The SIDT also continued to provide PD and support to the faculty through the rest of the year.

In terms of the SIDT members' roles in PDSA, Cervantes was most explicit in the delineation of SIDT roles and responsibilities. The SIDT divided the team into subcommittees that included webmaster, public relation, PD, PDSA, secretary/support coordinator, and data clerk. The SIDT invited others to join the SIDT with the goal of having the new members "shadow" the current SIDT members to build more teacher participation and sustainability. This invitation was a continuation of a very conscious and thoughtful decision by SIDT members to bring other teachers into the process early on by seeking their input and inviting them to participate in the development of the lessons. This was seen as fundamental to building teacher buy-in at Cervantes, and administrators believed that this decision made the SIDT seemed more accessible to other teachers and framed the work as a collaborative effort. The SIDT continued this approach throughout the year as well as a way to incorporate teachers sitting on the sidelines. As a result, there was more buy-in from the teachers and many teachers got the opportunity to improve their own capacities through the process.

Similar to Wheatley, the SIDT at Cervantes engaged in three PDSA cycles. For the first cycle, the SIDT focused on the activities they did at the beginning of the year: developing lesson plans for advisory on growth mindset, grade reporting every 3 weeks, having advisory teachers call parents, and teacher feedback on lesson plans. It was unclear what they learned to improve implementation. However, the teacher survey data showed that the vast majority of teachers agreed SOAR was moving the school in the right direction. In the second cycle, there was no clear aim, but the SIDT focused on the behavioral reflection form in grade 9 and they discussed the use of goal setting and grade monitoring process. At the end of the second cycle, they started planning for the third cycle before they had fully discussed the implications and findings of the

second cycle. For the third cycle, they planned to focus on classroom practices related to growth mindset, including grading policies to allow for growth, mentoring students in advisory, and using the behavioral reflection form. However, it was unclear how much of this they accomplished as they did not collect the data for this phase. The team continued to develop new lessons throughout the year, but each lesson was not linked or tested through PDSA.

Walker High School - Phase 2

In contrast to the other two SIDT teams, the SIDT at Walker did not demonstrate a good grasp of the components of the SOAR innovation, nor they did articulate the need to gain buy-in from the staff. Over and over in session memos and researcher and facilitator feedback forms, there were comments that the group at Walker had many members who were unsure with what the innovation entailed. Even by the end of Phase 2, the researchers expressed a concern regarding the gap between Walker and the other two SIDTs. This gap was noticeable in regards to their understanding of the innovation, the PDSA cycles, the readiness to scale in the innovation, and the lack of a clear leader. There were instances where individual SIDT members showed that they had some human capital to do the PDSA or PD, but as a group, they were often unable to leverage this, which was also related to their social capital in this phase. Accordingly, we rated them as Limited (1) on the human capital rubric.

SIDT interviews indicated limited understanding of the innovation and even support for it. An interview with an SIDT member indicated that SIDT members had only a loose understanding of the specifics of the SOAR innovation. When asked about the problem-solving framework, the SIDT member responded that they had only surface level exposure to the concept. This SIDT member indicated that members of the group were having a difficult time

and were still looking for a way to “connect the dots” between what they were trying to do with SOAR and their own objectives as content-based classroom teachers. Moreover, there seemed to be a lack of understanding of the purpose of PDSA. Throughout the phase, the SIDT members often framed PDSA as being compulsory, not as a process to test the lessons/practices, make mistakes, and improve them before they were implemented on a larger scale. They discussed implementation and PDSA in terms of compliance. Due to their conceptual misunderstanding, the SIDT at Walker needed a lot of hand holding from the researchers and facilitators in order to put ideas on the table and figure out what the next step in every process needed to be.

It was not the case that the members at Walker lacked human capital altogether. There were instances where they showed that they have specific skills and knowledge that could be used to do innovation work. For example, at one professional development workshop, the SIDT members discussed how they pulled quotes from a growth mindset book, a video on neuroplasticity, and a handout of examples of appropriate praise language that targeted growth mindset and not innate ability for a lesson plan. They also got eight other teachers on board to try the growth mindset lessons and see what they can learn together. However, this illustrated that even if there were individual human capital, it did not mean that the group as a whole could leverage this. For instance, at one point in the development of the lesson plans, an SIDT member from Walker had created a set of lesson plans. However, none of the other SIDT members had seen the lessons and were minimally aware that she had created them. Moreover, there were tensions within the group over the teacher who put together the lessons, not sharing her opinions on the lessons (despite not having seen them), and for not going along with the plan that the rest of the team developed.

In another critical instance, two participants, the principal at Walker and an SIDT member, expressed concern about the makeup of the SIDT. In the eyes of the principal there was one member of the SIDT who did almost all of the work. She said, “And I’ll be real honest with you, the person that has been really working the hardest is [SIDT name]. He’s the one that I see that has really been working on this hard. He’s the one, and you know, I know he’s/ the lead, but the others are, but he’s overall by far, he’s the one that has been really, I see doing the most part of the work.” Yet, this SIDT member was removed from a leadership position because the principal felt that he was not effective at leading the group. The principal also demoted one of the DIDT members with the most knowledge of the innovation to an SIDT member so he/she was not in a position to lead. Another DIDT member was removed completely. With her weak understanding of the goals of the project, the principal assigned leaders to the DIDT who were described as unfit for leading school-wide implementation at the start of the innovation. Later in the process, she intervened with the SIDT’s organizational structure and membership, removing these members from leadership positions and without consultation with the research team. Thus, there were also social and cultural capital issues that interacted with human capital issues at Walker.

Walker High School- Phase 3

In this phase, the SIDT started with only one innovation practice at the beginning of the school year but made tremendous strides due to changes in the composition in the team and some significant leadership decision. Some members demonstrated that they understood PDSA, some showed that they could lead PD, and they did accomplish some of their plans, but as a team, they

needed much support in order to do the work. As a result, we rated them as Adequate (2) on the human capital rubric.

In terms of the SIDT members' roles in PDSA, there was a significant change in the composition of the SIDT members at the end of Phase 2 and the beginning of Phase 3. A few key DIDT members were removed from leadership position, and new members came on board. Moreover, in a rather fortunate chain of events, one of the most outspoken and knowledgeable SIDT members from Wheatley, SIDT1313, transferred to Walker as an assistant principal. The principal at Walker recognized his skills and understanding of the innovation process and leadership and asked him to be on the SIDT. In many ways, he provided a boost to the SIDT's human and cultural capital, significantly increasing the SIDT's capacities to do PDSA and PD. Administrators and SIDT members both commented multiple times on how much work SIDT1313 did in pulling the behavioral form together and provided the leadership the team needed. However, SIDT1313 could not keep up with doing all or almost all of the work by himself. By the second semester, he had said that how it was time he stepped back and that there needed to be diffuse leadership roles. His goal was to help others step forward into leadership roles. To some extent this diffusion did happen when SIDT1313 consciously stepped away from leading the group and encouraging others to be leaders. It empowered other SIDT members and gave them a chance to show their individual human capital as well as their cultural capital. This was most clearly seen in how the innovation was presented at the beginning of the year and at the end of the year.

At the beginning of the year, unlike the other two schools, the SIDT at Walker only had one innovation practice to share with the school: a behavioral/time-out reflection form similar to

the one at Wheatley. They did not provide a strong rationale for it and how it was connected to the larger SOAR innovation. The PD and presentation also made the teachers think that the behavioral form was created by the administration and not a group of teachers in the school. It was not until SIDT1313 took a step back and forced the rest of the team to take charge and lead the implementation and deliver the PD that the teachers saw the innovation as a teacher-led innovation.

Similar to Wheatley and Cervantes, the SIDT at Walker engaged in three PDSA cycles. For the first cycle, the SIDT at Walker looked at the impact of the behavioral/time-out sheet that was strongly emphasized by the administration that it should be used as much as possible in place of sending students to the front office. They found that there was a major reduction in infractions in the first few weeks (24%-44% depending on how infractions were counted due to administrative policy changes). In the second cycle, their aim was to increase student ownership by teaching students how to set goals and how to achieve those goals. Teachers conducted a lesson on goal setting, generated common action steps mentioned by students and turned them into the SIDT. The SIDT took these common action steps and created a school-wide action step poster with the intention that those action steps along with grade monitoring and graphing chart would help students to improve their learning. In the third cycle, they focused on the action steps and framed them as a problem-solving process that could be used in a variety of situations, in and out of school. Cognitive interviews with teachers and focus group interviews with students by the researchers showed that students were aware of the problem-solving process, but the SIDT did not collect their own data to inform their PDSA process.

Although tremendous improvements were made by the SIDT, issues remained. During the summer, two researchers discussed with the team how to overcome some of the challenges they faced this past year, particularly the lack of vision and coherence of their innovation practices. One SIDT member also voiced the need for a routine meeting time so they did not continue to complete things at the last minute. However, even with the additional support, they were not able to make plans for the next school year in the way the other schools do.

Despite the issues that remained, many SIDT members were confident in their school team and in their capacities to lead implementation and refine the innovation practices. An SIDT member who used to be fairly negative about the innovation said, “if Vanderbilt goes away, the grant goes away, we have developed tools, and our team will stay and continue this, because this has just been – you know, came up with ideas that teachers have given us ideas, and we've developed those ideas. We'll always evolve them, but I think this could all just go away tomorrow and I think with what we've developed, we'll continue here at [Walker], no matter – no matter what principal is here, because it makes sense and – and it works.”

Summary of Changes in Human Capital within and Between Schools

In Phase 1, the SIDT were being introduced to the design and development process and they interacted mostly in large groups. Each SIDT team did not have much knowledge about the process at the beginning of the phase but by the end of the phase, there were individual members from each school who had a good understanding of the innovation process and the individual component. The one differentiation among the schools was that Wheatley had recently gone through a school-wide initiative so they had more direct knowledge of how to take leadership

roles, implement a school reform, and design and deliver PDs. In Phase 2, both the SIDT at Wheatley and Cervantes showed that they could link growth mindset and problem-solving with the SOAR innovation, and they could do PDSA by testing lessons and refining them based on the feedback. The SIDT at Walker, on the other hand, were significantly less able to identify the components of SOAR and how they were linked together. They had considerable gaps in their understanding of the SOAR innovation as well as their roles as part of that innovation. This difference between the first two SIDT and the SIDT at Walker could be attributed to two factors: they did not have individual members who had knowledge and expertise in PDSA, PD, or school reform, and they did not have sufficient social or cultural capital. They did not have a leader in the group, and they were often unclear with their individual role in the group as well as in the innovation. Moreover, even when they had individual members who had skills or expertise in a particular area, they were unable to leverage this in their work. In Phase 3, both the SIDT at Wheatley and Cervantes engaged in three PDSA cycles, demonstrating that they had most of the skills and expertise to do PDSA and PD, and in comparison, the SIDT at Walker struggled throughout the phase. However, the SIDT at Walker did make considerable progress in their ability to do PDSA and PD with the infusion of human and cultural capital with the addition of SIDT1313 at the beginning of the phase and with other SIDT members stepping up to the plate as SIDT1313 took a step back.

Social Capital

Phase 2

Two themes emerge about how the SIDTs enacted social capital: the social relations with each other to understand how they worked together as a team and how they leveraged

connections with others to further SIDT goals. Across both of these areas, the evidence indicates that Cervantes demonstrated strong social capital as they displayed strong working relationships and collaboration in Phase 2 and repeatedly emphasized the need to use their relationships with other teachers to obtain stakeholder input on the innovation, thus leveraging their social networks into social capital. In Wheatley, there is strong evidence that the SIDT members worked productively together to collaboratively achieve their goals, even though there was a lack of an official distribution of tasks and occasional tendency of one member to dominate. In regards to connections with stakeholders outside the team, SIDT were intentional about designing messages that would build teacher buy-in and engage early adopters in the work. Yet, they struggled to engage with their principal and expressed numerous frustrations about interactions with administration. In contrast to the other schools, the SIDT in Walker struggled to productively collaborate in Phase 2. Their work as a team moved from disengagement to resistance as the year progressed. SIDT members occasionally expressed a need to obtain input from others in the faculty as a way to build buy-in, but there is little evidence that they did so. Comparing this evidence to the rubric, Cervantes demonstrated Excellent social capital, Wheatley demonstrated Proficient social capital, and Walker had Absent social capital (see Table XX).

Throughout Phase 2, Cervantes demonstrated strong collaboration in sessions. For example, the team's internal dynamics in sessions were described as "this collaboration produced a positive discussion and positive tones during their discussions" (Session 8), "participants were reflective and open to giving and receiving constructive criticism within or between schools all working together to figure out the PDSA cycles" (Session 9), "all members appear to participate as they work towards solutions to challenges faced by their school's culture" (Session 12).The

team also showed some signs of task delegation to work efficiently. Although limited by time in how much the SIDT met outside of official sessions, they did make efficient use of their time.

One member describes how they work together,

The people on SIDT, I mean some of us are friends, but more than anything we've all been working together for quite a bit, so we have that mutual respect. Most of the people who are involved in our SIDT are pretty heavily involved in other things like coaching and such things...we've made it work with the email and texts, and the few times we've had to meet - like last Thursday I called an impromptu meeting and they came..."

(SIDT1315)

Wheatley also demonstrated that the SIDT was able to work productively together.

Throughout multiple sessions, there are descriptions of how positive, engaged, and collaboration the team was. For example, notes describe the team as "focused and positive on what they needed to accomplish, as well as energetic and enthusiastic as they worked together" (Session 11), "lively discussion...positive atmosphere," (Session 8), and "[working] together and [building] on each other's ideas, so it is not simply one or two participants doing all the work" (Session 9). The productive collaboration in Wheatley appears due to their prior experience leading another change effort in the school as there was substantial overlap in membership on the SIDT and the teacher leadership team that led this prior effort. One member explained his/her prior experience, "at the school level there are several larger groups that meet to try and, try and advance school culture and the school transformation initiatives. ... I'm on it at this point, and it consists of people who are willing to invest of their own time and their own resources in order to make things happen at the school, and that's been very, very successful" (1302).

Despite this strength in collaboration, there were a few pieces of negative evidence about challenges in how the team in Wheatley works together. First, there were a couple of instances across sessions in which one member dominated the conversation. In Session 12, for example, the fieldnotes indicate the team “is very collaborative, although one member railroads the conversation at times” and won’t let the group move beyond a topic he is focused on. In Session 9, this member engages in a prolonged conversation with an assistant principal who also attended the session about a practice in which he believed strongly. The fieldnotes indicate, “Discussion is entirely between SIDT_Wheatley_1313 and SIDT_Wheatley_1301; feels a little tense; other participants are remaining very silent.” Second, these instances notwithstanding, the evidence suggests that the team collaborated as a whole group, with no indication of task delegation to work more efficiently.

In contrast to the other schools, the SIDT in Walker struggled throughout Phase 2 to work productively together demonstrated a pattern of disengagement in SIDT sessions. In Session 11, for example, fieldnotes indicate “a third of the group is completely disengaged from the conversation and only three people are actively involved by contributing ideas, asking relevant questions, and critiquing each other’s ideas.” In December, SIDT members admitted they had not met outside the formal sessions until just the week prior to the researcher visit (perspective on piloting process memo). The lack of cohesion in how they collaborated was also apparent in statements about the lack of full participation of all members. The principal reported there was only one member of the SIDT who did the work: “And I’ll be real honest with you, the person that has been really working the hardest is (name). He’s the one that I see that has really been working on this hard.” This disengagement evolved into resistance in the latter half of Phase 2.

For example, the fieldnotes include descriptions of “a dissonance in the direction the members wanted to take in their PDSA cycle. This clash soured the attitudes of the school” (Session 8) and “a very negative attitude, which impeded work among the group” (Session 11). The tension was most apparent at the final session of Phase 2. One member disagreed so strongly with the emerging plan that she said “I think ya’lls goals and my goals are very different and they’re not aligning” and removed herself from the group (Session 12). The disengagement and resistance in Walker hampered their ability to produce a fully developed innovation and implementation plan for their school. For example, in Session 8, teams were asked to develop a communication plan to share the innovation with the rest of their school. In describing their communication with the rest of the group, one member admits they don’t know what they would share with their school. This member says the SIDT is “not cohesive in what we want to do. We are not organized. We don’t want to let everyone know what we’re doing if we don’t know what we’re doing.”

These differences in social capital among the three SIDTs in Phase 2 were also evident in how the SIDTs interacted with others in the school. The SIDTs in both Cervantes and Wheatley are comprised of individuals who are involved in many activities in the school, including leading a prior change effort, giving them many connections to other teachers. SIDT members in Cervantes described an intentional process of having individual conversations with teachers to build buy-in. One member likened their current approach to this prior reform effort on disciplinary literacy,

the way we started disciplinary literacy, we got teachers that were interested in it and had a heart for it and then they kind of made the decisions of, okay who are we gonna go talk

to and they had one on one conversations with other teachers, just getting that buy-in from teachers.

The Cervantes SIDT was convinced of the importance of stakeholder input and used a deliberate process shortly before Session 8 where they structured conversations with faculty in grade level teams to develop a scope and sequence of what they could do, shared this with the faculty at a faculty meeting, and then sent out a lesson template for teachers to get lessons for each content area. This intentional eliciting of feedback continued throughout the rest of Phase 2. At the end of the Phase during the annual summer institute, members described their plan to invite all teachers to participate in summer planning to create lessons for their new advisory period.

Wheatley SIDT members were also involved in numerous activities in the school, including the existing teacher leadership team, which provided them with connections to other teachers who were open to enacting change and throughout the school. Yet in contrast to Cervantes, they were wary about their ability to build buy-in among their colleagues and, for the first half of the school year in Phase 2, they intentionally did not shared their work with anyone else. As one member articulated,

We offered in a very limited fashion to roll it out to a few other people, and there are two or three other teachers in the building that I think are... interested at this stage in piloting something within the innovation parameters. But because we are just leery about getting it to people who may not be early adopters and the way they might receive that message we've been mostly keeping it out of the limelight.

SIDT members believed they needed to keep silent about the innovation at first as they were quite concerned about imposing something new on their teachers in their school, outside of their

pre-existing campus literacy program as they didn't want to diminish the literacy program or limit the SOAR innovation due to a negative roll-out. When they did transition to bringing on new "early adopters" to learn about the innovation, two new members joined the SIDT, one of which noted the importance of the SIDT's social connections in the school for her participation. She said,

I signed on because y'all were the in crowd and I wanted to hang out with you. I'm not making that up. You're all good teachers and I want to be a better teacher and I'm very new to it. So I think, well this seems like a good thing to do.

Similar to the other schools, the SIDT at Walker discussed how to build buy-in among other teachers. In Session 2, they brainstormed about getting testimonials from former students who have overcome obstacles as a way to build buy-in. This idea to build buy-in continued in Session 3 where a member said, "you have to show teachers the results and build buy in over time in order for other teachers to want to do it." Yet, while it is clear that SIDT members considered ways to involve teachers, develop testimonials, and build buy-in, there is no evidence that they acted on these ideas.

A final area in which the SIDTs tried to leverage social connections in order to further the innovation's goals is through their relationship with their principal. All three SIDTs struggled in this area, although to different extents. In Cervantes, SIDT members voiced concerns that their implementation plans will be undermined by the administration, as they found her to be "uncooperative, inflexible, and transient." They worried about whether their plans to build teacher buy-in will be undercut by the administration. In Walker, SIDT members expressed continual concerns that administrators would not come to meetings or engage them during their

piloting and school-based design work throughout the second half of Phase 2. As a result, the team felt like the administrators had no stake in the success of the innovation. At one point in Session 12, the SIDT asks the external developer to intervene with their principal on their behalf. After several discussions, an at-large member of the DIDT convinces them to have the conversation themselves and helps them develop positive questions so they don't sound aggressive or put the administration on the defensive. In Walker, the disengagement and resistance of SIDTs was likely due to the resistance and interference they encountered from the administration. The external facilitator reflected on the challenges with Walker and said, "It's [Walker] teachers need to see the support of their principal, and in that school, the principal didn't really support what the DIDT had come up with...[T]hey would go back to the school and the principal would be like, well, here's what we're going to do, so they basically would be starting over at every session because the principal just gave them a new way to go, and so that – frustration of kind of having to restart after every session really inhibited, you know, building this ownership and buy in among teachers on the SIDT."

Phase 3

In Phase 3, both Cervantes and Wheatley continued to demonstrate strong internal cohesion as a team. For example, fieldnotes from session observations note that, "they worked well as a team...It was apparent that Wheatley and Cervantes met together before the meeting to contribute to the work...Cervantes and Wheatley had broad participation by members collaborating... They are having fun while doing this work efficiently." These observations of team meetings were reinforced by the interviews. For example, when asked about how the Cervantes SIDT works, an administrator (1345) said, "There's, like, not one person that

dominates the team. They – they sit, they listen, they create. It's really something to see those teachers work together and create something. Because they listen, they respect each other.”

Similar evidence on positive working relationships and collaboration among SIDT members existed in Wheatley. One SIDT member summarized their team by saying, “I think that we work really well. I mean, I think that it's a really comfortable team to be on. It's a team full of very thoughtful people, very empathetic people.”

Despite the positive collaboration, both Cervantes and Wheatley had some challenges evenly distributing tasks and maintaining communication. The Cervantes team organized their work mostly through email due to scheduling constraints, with the school coordinators enforcing deadlines for when tasks need to be completed. This reliance on email led to some miscommunication, with one SIDT member noting, “Sometimes you may not know necessarily what's going on, or maybe you missed an email” (SIDT 1819). Similar concerns were present in Wheatley, with concerns that the work was not evenly distributed. SIDT1302 summarizes: “I'd say we're about 85% towards that feeling that everybody has a good work load and that people are accomplishing what they set out to do.” This uneven distribution of work was particularly salient for PDSA, which was primarily conducted by only two members. One SIDT member explained, “And I think also the data is not widely available to all the members of the team. I think if it was available to all the members of the team it would be a little easier so we could all see -- so we could all analyze the data as opposed to maybe one or two people who have the data. I think that would be helpful.” Because of the time pressure and recognition of the need for strong delegation of responsibilities, the SIDTs at both Cervantes and Wheatley devoted most of their working time in the summer institute to developing a formal structure of subcommittees

with responsibilities. The Cervantes SIDT took their team planning a step further and not only created a formal team structure, but they also created norms of engagement for the team, including flexibility, problem-solving, communication, commitment, group decision-making using majority rules.

The Cervantes SIDT demonstrated further internal cohesion with their foresight to expand membership to have new SIDT members shadow them as a way to plan for inevitable transition in SIDT membership. They brought several new people to the summer institute to join the SIDT, with the goal of having the new members “shadow” the current SIDT members to build more teacher participation and sustainability. An administrator described her confidence in the sustainability of SOAR due to this intentional development of teacher leadership,

I'm very, very confident, because we not only have the SIDT team, they are growing other teachers and those teachers are growing other teachers. So if, for example, if someone in SIDT team leaves there's always someone behind that they can pull up and take their place. [Dean of Instruction 1345]

Concerns about sustainability due to SIDT member turnover were raised in Wheatley, although there was not a plan to address it. The creation of team norms of engagement and intentional inclusion of new members for sustainability led to Cervantes being given a higher rating on the social capital rubric.

Compared to Phase 2, Walker demonstrated more evidence of being able to productively collaborate in Phase 3, with some evidence that the team had developed positive working relationships. For example, SIDT 1058 said, “There is lots of collaboration. There's – everybody puts their input in and you hear all the voices. There's healthy conflict. There is consensus and

then there's support even if it wasn't – we're going to go with it and support it. You know, so it's – it's a pretty healthy and dynamic team.” The fieldnotes provide further evidence of improvement in their collaboration, citing “noticeable improvement in the ability of the [Walker] team to productively collaborate with each other. Members who were observed to be resistant in the past were making positive contributions.” Several SIDT members’ referenced past struggles in the SIDT’s ability to collaborate while noting how their working relationship as a team has improved. “We have a great team; I wouldn't have said that last year” (SIDT 1600). Others noted improvements in how they collaborate, even as challenges remain. AP1164 said, “I think it's learning in progress. I mean, that's why we have an AP over it, to just kind of guide them, and so I think it's – they're getting those skills. I wouldn't say they have them all, but I think they're getting those skills.”

Despite this growth, the team operates with a single clear leader and does not evenly distribute tasks. Multiple SIDT members describe the team dynamic as “it's pretty much just helping out SIDT1313.” (SIDT1309). This reliance on SIDT 1313, who was also an administrator in the school, created challenges for implementation even as other faculty began to perceive SOAR as a directive from administration. To create a “sense of inclusiveness,” SIDT 1313 tried to take a less prominent role. Yet without his presence as the leader on the team, There was no one to call meetings, manage internal communication, or hold people accountable when things do not get done. SIDT1330 reflects on the leadership transition:

So intentionally, [SIDT1313] stepped back. I think that – I mean, that continues to be an obstacle, I think, in this whole piece, is disseminating leadership among the whole group, and a willingness by others in the group to really step up, so that – like I said, what we've

had – really, [SIDT1313's] been a great leader, but again, it's been his leadership to the point where if he wasn't doing some things, things weren't done.

The Walker SIDT was rated between Limited and Adequate on the social capital rubric as internal cohesion is beginning to develop, even as they rely heavily on a single individual.

A second theme in regards to social capital is how the teams were able to leverage connections with others to further SOAR implementation. All three schools demonstrated social capital in being able to gather informal feedback from both teachers and students about the innovation to improve it. SIDT members in all schools could describe specific changes they made as a result of teacher and student feedback. For example, one SIDT member from Wheatley describes providing supports to teachers with large classes after receiving additional feedback about lack of time to support students,

based on that feedback, we also pulled second period teachers that didn't have a class second period, would come into teachers' classrooms that were really big, like 35 or 40 kids, just as another adult or another teacher to help out with the process. And it sounded like people really, really appreciated that.

At Walker, the SIDT initially encountered pushback from the Foreign Languages department when these teachers were asked to show PowerPoints that had language students might not understand, particularly English language learners. A SIDT explains, "And we hadn't even thought about that. So once we opened it up to say 'here's the skeleton, word it however it works best for you', it's like we felt a breath of fresh air with our teachers, it's like we have ownership from the teachers." This gathering of both formal and informal feedback from teachers and students was an intentional strategy to build teacher ownership for the innovation. A SIDT

member at Wheatley reflected in the first quarterly meeting that they “talk about student ownership, but I think we might need to think more about teacher ownership” and that could shift teacher culture.

While all schools made changes in response to feedback from teachers, the Cervantes SIDT distinguished itself with the intentional fostering of informal feedback mechanisms and degree to which other teachers saw the SIDT as open to that feedback. For example, one Cervantes teacher said, “if ever I had a question or wanted to share, I know easy ways to do it, and it’s — and it’s welcomed. ... Everything I’ve ever said to [1315], for example, it’s come back in a different form, but I know it’s been communicated.” Another Cervantes teacher noted, “they always stress to us this is a ground up movement, that this is us, we make this look how we want it to look, we – like we design this. So if we don’t like what we’re seeing, let’s change it. Let’s all talk about it and meet” (1801). An administrator in Cervantes (AP1351) described SOAR as having a “buzz” about it, with teachers wanting to participate in developing advisory lessons due to that buzz. A Cervantes teacher agreed, noting, that the SIDT members were “extremely visible. They’re also really well-liked. They don’t always feel that way, I think, because they’re giving us work to do, but they are — each one of them has a large group of people on this campus that respects them, so there’s a comfort level in — in that conversing.” This “buzz” among other faculty was absent from both Wheatley and Walker. A couple of Wheatley teachers felt excluded from the process and noted that the SIDT could be cliquish and “inaccessible.” T1440 talks about how the team seems a bit “clubby” and that “the group of teachers that are doing [SIDT] are the group that were left over from another thing we were doing called [prior teacher leadership team], and they were clubby also.” At Walker, an administrator noted

challenges in SIDT members' ability to lead other teachers, noting, "The right people were not in the leadership roles ... people were not following them because ... it wasn't the right people."

Finally, the three schools varied in their ability to leverage relationships with school administration. The SIDT members indicated that they had received full support from the administration, particularly the principal. One SIDT member at Cervantes noted, "Support from our administration has improved a lot over the last year. Like I said, our principal gives us parts of faculty meetings or Waiver Days to give us — to give the PDs. She gives us time cards to do these — to work. She gives us subs, which cost money. To have those planning days. And that's huge." In contrast, the Wheatley SIDT struggled throughout the year to communicate with administrators and have them adequately support their work publicly in faculty meetings.

For example, SIDT1414 said,

[An AP has] been very involved, very helpful, very good at pushing and getting things done. I would say the rest of the admin is sort of 'whatever' about it. If we ask for something specific from [the principal] we'll get it, but she's not cheerleading or anything like that.

Outside of the assignment of the new leader to the team, members describe no other supports from the administration.

Economic Capital

Three themes emerged from the data that string through each phase of the work across the schools that are related to economic capital. They are: (1) the time burden of participating in the work itself; (2) how time will be allocated to implement SOAR within the schools; and (3). the

provision of resources to teachers and students such as lessons, PowerPoint presentations and posters.

All Schools - Phase One

There is little information on schools' level of/access to economic capital in Phase 1 of the work. Because Phase 1 begins with the DIDT's introduction to the overall project, and then moves into the early work of formulating an innovation prototype, data related to the three themes identified most centered on concerns of group members as they looked forward into the future. For example, the first theme - the time burden of participating in the work itself – arose during the very first session and continued over the course of Phase 1. Innovation school teachers were concerned about the amount of time participating in the work would require, and whether it would take time away from their students. There was no indication that they would have time given to them by administration to dedicate to SOAR development or implementation.

The second theme was more complex, arose about half way through Phase 1 (Session 3), and evolved along with teachers' understanding of the scope of the work, and the development of SOAR. In Session 3 facilitators pushed DIDT members to think about the organizational supports. At this time, and then throughout the remainder of Phase 1, teachers periodically expressed a desire to have dedicated time built into the schedule, such as an advisory period, specifically focused on SOAR. However, they also decided this would not be possible because the master schedules for the year (2013-14) were already set, and they would not be able to make changes. By session 5 however, some members decided that they would ask the administration for “dedicated time” to be built into the master schedule for the following year (2014-15). Teachers continued to be concerned about the lack of dedicated time to SOAR, and some

members “worried about the structure of the school day and how they will practically be able to fit the skills into the day” [Session 5, summary memo]. In the sixth session, when pushed to think about how SOAR’s core components might align with local school contexts, the discussion again became centered on the feasibility of integrating SOAR.

The third element related to time allocation centered on professional development. By session three there were some discussions of how the DIDT would need time to train teachers. By session five, there was a decision that PD would be a nonnegotiable if SOAR were to be implemented successfully. Still members throughout this time wondered how much and with what regularity they would be able to secure time from the administration. Finally, there was only brief mention made to physical resources, and this happened in Session 4 when two cross-school groups discussed possibly giving students planners or binders, or using an online system to reinforce SOAR amongst students.

In sum, teachers demonstrated limited knowledge regarding access to resources or time to dedicate to SOAR, though as the innovation began to take shape they were able to conceptualize needs with more clarity. Still, they remained unsure of whether they would be allotted time and resources by administrators; they did not discuss allocation of time or resources with any concrete authority that would indicate actual possession or ability to leverage economic resources. Rather, by the end of Phase 1, there were agreed upon asks from the administration, such as dedicated time in the schedule to teach SOAR skills as well as PD time with teachers, but it was clear that administration controlled access to time and resources. Given these factors, and that discussions around the themes outlined above were heavily centered on concerns or

perceived inability to obtain or allocate resources, we rate assess the DIDT's level of economic capital as Limited (1) during Phase 1 of the work.

Wheatley High School - Phase Two

At Wheatley the first theme of burden of time on participating teachers remained, but appeared almost exclusively in data collected during interviews during the December 2013 Fieldwork visit; such concerns were not noted in the process data. In the interviews, we heard that most members of the SIDT had other leadership roles at their school, and were already taxed for time. One member said of the team, "it consists of people who are willing to invest their own time and their own resources in order make things happen at the school." [FW Data Dec 2013, SIDT 1302]. SIDT members also reported that the work was taking them out of their classrooms, which was an additional concern. The other instance of burden of time on team members arose in a May 2014 meeting as teams were introduced to the concept of documenting adaptations and refinements of the innovation over time as part of the PDSA process. Unclear of the purpose of this task, team members again invoked the theme of time burden.

The second theme, allotment of time for SOAR within the schools, was much more prevalent than the first theme. Concerns centered around (1) introducing the faculty to SOAR and the provision of initial and ongoing PD; and (2) the delivery of SOAR content to students. The issue of dedicated time for both of these arose throughout Phase 2, though as the innovation took shape and the team became increasingly involved in the work, their handle on economic capital began to shift. In August 2013 (session 1, day 2), team members expressed concern about finding time to introduce SOAR during PD. Later, in January 2014 an SIDT member commented, "We need to be realistic about what we can ask for and what we'll get...PD won't get a full day

devoted to SOAR” (1313). The team seemed to settle on the belief that they could secure a quarter of a day during pre-school PD to introduce the faculty to SOAR. Still, while the SIDT was wondering how much time they would be allowed to have training staff they began thinking of ways to provide ongoing PD to teachers at PLCs and faculty meetings. By the conclusion of Phase 2 in June 2014, the team had solidified a plan for introductory PD and secured time from the administration. They reported that their implementation plan included a half day had been reserved in pre-service PD days where they would introduce SOAR to the faculty, integrating the innovation into the schoolwide literacy program’ however they still remained unsure about how they would secure time to provide ongoing training.

Regarding delivery of SOAR to students, the team went from wondering how they would manage to integrate SOAR into a school that was already full of initiatives (August 2013 and January 2014), to gaining the right to use the entire second day of school to introduce students throughout the school to SOAR with the hopes of getting kids “buzzed about it” (July 2014). Still, the team lacked any concrete plan for how SOAR would be delivered to students throughout the year, but hoped teachers would begin to infuse practices and concepts into their classroom routines.

Finally, as far as the provision of physical resources, the team’s plan for a daylong introduction to SOAR included providing teachers with a set of lesson plans, one for each period, that they would use throughout the day. They also spoke of providing teachers with tools such as discipline forms, and materials for their classrooms such as posters related to the components of the innovation. And though they conceptualized resources they would provide to teachers, they were unsure whether the administration “had time or interest” to support the use of a new

discipline mechanism. Furthermore, they had begun to wrestle with how they could provide teachers with an electronic database of readings and teaching resources.

Overall, the team went from being unsure of the resources available to them to securing a moderate amount of time and materials to implement SOAR with teachers and students. However, they remained somewhat unsure about how much they could ask for, how much the administration was willing to provide, and how to leverage time and resources in an ongoing manner throughout the school year. As a result, we assign a rating of Adequate (2) to for Phase 2 to Wheatley.

Wheatley High School - Phase 3

In Phase 3, at Wheatley, the three overarching themes remained pervasive, though they became less distinct from one another. A difference from the previous phase, however, was that members of the SIDT began to leverage resources, particularly time for professional development and materials for teachers, for the purpose of implementing SOAR. Still one nagging difficulty for team members remained a lack of time for program- related planning.

The time burden of SOAR on the SIDT was by and large the greatest concern expressed by its members. They consistently reported the need for more time to work together. In October 2014, SIDT 1300 said, "Time is always our thing." SIDT1303 said, "I feel like that has not been given to us, so everything that we do, it's through our own time after school, and so if they would have given us...something common, that would have helped us so much." Despite the fact they secured district funding for the time they worked outside of standard school hours, they overwhelmingly desired a common planning period, or minimally, to be released from testing administration duties and other PD so they could collaborate during the school day. Even

administrators noted the need for this, but the SIDT was unable to secure this planning time. According to the principal, she was hesitant about pulling SIDT members from class, and was slightly uncomfortable with the amount of time they missed attending the quarterly meetings, because these were some of the strongest teachers in the school and she wanted to ensure that their time with students was maximized.

Over the course of Phase 3, the SIDT was able to increase the amount of time devoted to the delivery of SOAR. Approximately half way through the school year, after learning from teachers that they needed more time to complete the lessons in a meaningful way, the SIDT approached the administration. By subtracting one minute from every other period in the day, they were able to increase the length of the homeroom SOAR period. Furthermore, they were able to leverage human resources in their building in order to provide more support to teachers who struggled to get through individual conferencing. They did this by having teachers without homerooms push into classrooms with struggling teachers.

While the SIDT increased overall time allotted to SOAR delivery, they saw the amount of time they had to deliver to PD to teachers decrease. While the administration remained willing to give time to the SIDT for SOAR related work during faculty meetings, the amount of time and number of meetings decreased in the latter part of the year; this was due primarily to testing and a the roll out of a districtwide initiative that also required teacher training. The SIDT responded to this decrease by disseminating information via memos but reported it was not as effective, and at times led to confusion. Still, at the end of the year, during the June 2015 meeting of the SIDTs, the team reported that they would have time during preservice professional development to provide extensive PD to the staff to prepare them for the year two rollout to students.

In October 2014, in an interview with researchers, the principal reported that the SIDT had not requested money to support SOAR, stating, “They haven’t necessarily asked for anything. And I’ve told them there’s money to – if they need anything, just let us know.” This willingness was reflected in comments at the end of Phase 3 by SIDT members, one of whom noted, “If we ask for something specific from [the principal] we’ll get it...she gets us the supplies we need, she gets us things and then it’s pretty much on us to get it done.” Another explained,

Our school administration is positively reactive to requests, and that’s been very good when we know what we want. It’s not been so good when we hoped that they would chime in of their own accord and provide us with things that they thought we needed. So I don’t think that they spend a lot of mental energy on this project, but they are trusting of us...but there are some requests that we would like to make that we just don’t think they can fulfill. (SIDT1302)

Interestingly, while the quote above affirms administrative support via the provision of resources, the team still desired more guidance, and still was not always aware of what they could ask for; the comments of the principal from October though, may suggest that the team had more financial capital available to them than they recognized.

Using the resources the team secured, they were able to provide teachers with materials such as posters and printed handouts for students. They were also able to provide other material resources such as lesson plans and PowerPoints to assist teachers in the delivery of SOAR lessons. All of this was seen by administrators and teachers as especially important for the successful implementation of SOAR. Reflecting on the implementation of SOAR over the school year, one Assistant Principal explained that the SIDT had made it “user friendly,” noting,

If there's something going on, they make copies...[teachers] don't have to worry 'when am I going to have time to make copies for this?' We have a team that they're going to make copies, they're going to – in the faculty meetings – explain everything. So all you have to do is go do it. (AP 8998)

Teachers overwhelmingly echoed this sentiment. For instance, a teacher who described the grade reporting activity's success stated,

...the SOAR committee...they make all the copies for us. There's no time out of teaching, and I think that's what made it a lot easier to roll out...nobody wants extra work, and that committee or group of teachers made it extremely easy...just being able to go on grade reporting day and pull out your progress reports, which we always had to do anyway, so now there's just an extra stack of paper with that. It's already there. Here's one paperclip thing, there's another paperclip thing right on top of it...they've already made all the folders for everybody. (T1487)

Overall, in Phase 3, Wheatley demonstrated an increased ability to obtain resources, and leverage them effectively. The administration was supportive of the team, and this was demonstrated in their willingness to grant the SIDTs requests for materials, as well time during faculty meetings. Though they still faced constraints, particularly in terms of lack of common planning time and larger pressures such as testing and districtwide initiatives that hindered their ability to deliver PD, they were able to provide teachers with materials to deliver SOAR to students, as well as both secure and then increase the amount of time allotted to SOAR. As a result, teachers expressed that they felt supported and that while there was still room for improvement, the training, tools, and other resources provided by the SIDT aided in the

implementation of the program. A holistic appraisal of these themes lead us to assign a rubric rating of Proficient (3) in the area of economic capital by for Phase 3 of the work.

Cervantes High School - Phase 2

The theme of time burden was hardly present during Phase 2 with Cervantes, aside from one instance during a meeting of the SIDT when they, along with members of Wheatley, expressed concerns over the amount of work associated with documenting adaptations and refinements to the innovation. Rather, SIDT members had secured time to develop and pilot the innovation. By the time they were interviewed during the fieldwork visit in December 2013, they were making use of districtwide waiver days to plan SOAR-related activities, particularly some early lessons that they wanted members of the faculty to pilot as part of the PDSA model of implementation. An SIDT member noted they “utilize as much as we can, time during in-house waiver days, and that’s kind of our way to kind of unfold things or unveil things to the larger faculty population” (1308).

Furthermore, by December 2013, the team had begun to think about how they would train the faculty for the full rollout of SOAR; “...whenever we do roll this out, we need to have a good amount of time in order to make it effective,” (Not Identified in memo) which would require at least a half day for teachers to really internalize the information. By March 2014 this became two half-long days of PD during the in service week before the start of school. In June they had secured an entire day during pre-service training to train teachers on SOAR. The team also discussed possibly using PLCs or PD days throughout the year for ongoing training, but nothing was set in stone during Phase 2.

At the beginning of Phase 2 (August 2013), the SIDT expressed concern about integrating SOAR into a school that already had fixed programs and structures. When they tried to pilot a lesson that September they had difficulty securing the necessary time. Still concerned about fitting SOAR into the school day in January 2014, the SIDT decided to lobby the principal to secure dedicated time for its delivery. By the end of Phase 2 in June 2014, dedicated time had officially been built into the master schedule in the form of a SOAR advisory period.

This meant that the SIDT would be responsible for ensuring that the advisory period did not become a waste of time; the SIDT reported at the June 2014 meeting that they had already systematically begun speaking to their faculty about the implementation of SOAR the following school year. They surveyed the faculty about the needs of the student body. Combining faculty input with the core components of SOAR the SIDT developed a scope and sequence for a yearlong advisory class; they shared this with the faculty at the last faculty meeting of the year, and sent out a lesson template for teachers to get lessons for each content area.

At the June 2014 meeting, the SIDT reported their next lift was to develop advisory period lessons, and the PD for these lessons; their plan was to provide every teacher in the school with a binder of lessons to be taught in advisory. Concerned that the lessons would not be completed over the summer, on day one of the session, they floated the idea of securing PD days to develop the lessons and provide the PD. By the second day, their principal was present, and she managed to secure funding from a district level DIRT member to pay any teacher in the school willing to work on developing the lessons over the summer. While the SIDT did not directly secure these funds, the interest of the principal translated into the procurement of per diem pay for teachers.

At the June meeting members of the SIDT asked for a small stipend or extra planning period for the person leading the SIDT's implementation efforts, but they were told by an administrator that there were no funds to support the request. Still, despite this setback, the team managed to devise a plan to develop the first six weeks of advisory lessons, as well as an approach for training teachers at the June 2014 meeting. They also committed to developing a PD plan for the year ahead.

Overall, the SIDT from Cervantes demonstrated an increased ability to secure time and resources for SOAR, as well as the capacity to put those resources into action. They secured time for both professional development and delivery of SOAR through a weekly advisory period. They ended Phase 2 with financial incentives to involve other teachers in the development of lessons and materials as well. However, the administration still ultimately held the purse strings; the principal remained a gatekeeper who exercised control of these resources from behind the scenes. As a result rate Cervantes's SIDT as Adequate (2) on the rubric for economic capital at the end of Phase 2.

Cervantes High School - Phase 3

During Phase 3 the members of Cervantes continued to increase their economic capital; while the administration, especially the principal, remained closely linked to the provision of time and material resources, the members of the team began to request greater amounts of supports from the administration. They were seen by teachers as the providers of the materials and supports for SOAR, while the administration was regarding as supporting the team by providing financial resources.

The burden of time on SIDT members remained a theme, despite the administration's affordance of multiple opportunities to plan, often with supplementary compensation. At the very end of Phase 2, the principal helped the team secure summer funding for lesson planning. The team invited the entire faculty to plan lessons for the first unit of SOAR. For three days in a row over the summer, more than half of the school's teachers participated. Administrators, teachers and SIDT members consistently reported that this move helped reduce the SIDT's burden of SOAR development, exposed a large number of teachers to SOAR, and encouraged teacher buy in through the incorporation of their voices. After this initial allocation of paid time, the principal continued to use school-based funds to pay for four substitute teachers every six weeks to cover the classes of four SIDT members to engage in ongoing planning; this was the equivalent of approximately 20 absent days in total. This was something of a compromise; the SIDT wanted a common planning period, but the principal was hesitant to grant this, or to pullout the entire team for planning every six weeks due to cost. In sum, the perception by the SIDT of insufficient time dedicated to SOAR development and support was closely related to the ambitious task of providing teachers with weekly advisory lessons, associated materials and training.

Delivery of SOAR at Cervantes took place almost exclusively during the weekly advisory period that was created as part of the master schedule for the year. SIDT members decided how students would be grouped. For example, freshmen were group on the basis of gender. SOAR advisory was initially held at the beginning of the school day; the SIST quickly learned this presented problems as some teachers were not prepared and students were trickling in late; as a result SOAR advisory was moved and held between second and third periods. We see this as

evidence that the administration, which controlled the master schedule, was willing to prioritize the advisory period, likely legitimizing and the efforts of the SIDT.

The administration also allowed the SIDT to use professional development times, waiver days and faculty meetings to provide ongoing training to teachers. In addition, the SIDT was able to leverage financial resources to incentivize teachers to come to PD, which they offered through multiple sessions to ensure all teachers could attend. Some SIDT members intentionally did not have advisories of their own. Instead, they leveraged this time to push into classrooms as additional support, or to observe how lessons were going, or to act as substitutes in instances when teachers were absent. Finally, during the final meeting of the year, the SIDT developed a complete calendar of PD sessions for the upcoming year based upon the knowledge that they would have time allotted to continue to train teachers on the SOAR curriculum.

Teachers consistently reported that the SIDT provided material resources; the primary resource was the binder each teacher received that contained each of the lessons as well as supplemental PowerPoint presentations, handouts for students, websites and student planners. As one teacher noted, “the committee provides us with all the resources we need for the lessons, and they’ve done a really good job of doing that” (T1349). Furthermore the SIDT provided technical guidance to teachers in the form of written instructions. Teachers clearly stated that the SIDT spearheaded the provision of SOAR materials and that they were supported financially by the administration. Almost all teachers, even those who thought SOAR needed considerable ongoing development recognized the SIDT as leaders of the innovation as a result of these resources, their development, and the PD provided to facilitate their implementation.

Overall, by the end of Phase 3, the SIDT at Cervantes demonstrated the ability to advocate for what they needed to support SOAR. In fact, by June, at the culminating cross-school meeting of this phase, the SIDT planned to further expand SOAR, beyond advisory. They spoke of developing a “Kids with Character” prize that would recognize exceptional students and reward them with t-shirts. As part of this the SIDT showed command of economic capital by bringing an estimate of the associated costs to the administration; furthermore they left this session with a tentative budget to present to the administration. They knew they would again have an allotted advisory period for SOAR the following year, as well as professional development time with the teachers. As a result, we assign a rating of Proficient (3) to Cervantes for Phase 3 of the work.

Walker High School - Phase 2

The SIDT at Walker was consistently unclear about what they wanted to do and what they would be able to do with SOAR. There was little discussion about the time burden the work would place on them, though they expressed resistance to PDSA because it was viewed as added work. Discussions regarding allotment of time and materials to SOAR in the school shifted frequently and failed to be solidified in this period. In an interview from the December 2013 fieldwork visit to the school, an SIDT member (1330) stated that some members were concerned about SOAR taking away from time allotted to content area teachers. The team perceived the district’s pacing calendars as heavy burdens that they would likely forbid them from successfully integrating SOAR into the school’s framework.

In September 2013, the SIDT reported they were unable to pilot the lessons because the school’s agenda was too full for the first few weeks of school; this kept them from engaging in

piloting activities entirely. Later on, in January 2014 when discussions arose of how they would implement SOAR schoolwide at the beginning of the following year, there was strong feeling that the principal would control the time, and they would not be able to dedicate extended time to rolling out SOAR. They were also concerned about integrating SOAR into what they perceived to be an already busy school program structure. Still, at this time, they noted that they would like to have content area and homeroom teachers teach some SOAR related lessons to students. When considering training for teachers, they hoped to have some form of schoolwide PD during service (January 2014), but details of this training never emerged. They also agreed that monthly PLCs would be a good way to provide ongoing SOAR training. Discussions surrounding provisions of resources were sparse, though the team mentioned providing posters and hoped the administration would provide them with such resources. Overall, the team did not demonstrate an ability to formulate a clear picture of the economic/material resources they might need, nor did they ever secure or leverage any such resources during Phase 2. As a result we have assigned a rating of Limited (1) for economic capital in Phase 2 for Walker.

Walker High School - Phase 3

The SIDT exhibited little change in levels of economic capital in Phase 3. When researchers visited the school in October 2014, they learned that the team had not met as an entire group since the cross-school meeting at the end of Phase 2. Later, during the April 2015 fieldwork visit, not one SIDT member described monetary resources or logistical resources that was currently or would help facilitate the work. The team did not meet on a regular basis to work on development or implementation of SOAR. One SIDT member, a new edition to the SIDT in the 2014-15 school year, became the leader of the group, and lamented that if he did not do the

work himself, or get other members to act, nothing was done. At the final meeting of the year, the only solid conclusion reached was that the team needed to determine a time to meet more regularly as a group to work on SOAR related activities in the upcoming school year.

As for the delivery of SOAR to students, time was dedicated to SOAR every three weeks for 20 to 30 minutes during the final period of the day. The administration created this time by using the pep rally bell schedule. Stakeholders, especially teachers, reported that there was insufficient time dedicated to SOAR delivery. Teachers said students were burned out and did not take the lessons seriously because of the time of the day and the lack of frequency and reinforcement. The SIDT was allotted time during PLCs to train teachers on the materials they were to use during SOAR periods. Typically this training involved going through the PowerPoint lesson teachers were meant to deliver to the students. All but once, these trainings were led by one of two administrators who also served on the SIDT. This led many teachers to perceive SOAR as an initiative that came from the administration rather than teachers.

The SIDT did provide some material resources to teachers, but teachers reported that these were insufficient or of poor quality. At the beginning of the school year all teachers received clipboards that held the behavioral reflection form developed by the SIDT. The SIDT continued to run copies for teachers to ensure the forms were always available. While teachers appreciated the provision of the forms, they saw these forms as a tool used by the administration to reduce formal disciplinary infractions, thereby negating the impact of the SIDT's leveraging of this resource to successfully implement SOAR and be seen as the leaders of such efforts. Midway through the year the team also provided teachers with color posters that outlined a goal setting process that was part of SOAR. This was the extent of materials provided. In addition, teachers

were overwhelmingly negative about the quality of the PowerPoint lessons provided by the SIDT for teaching the SOAR curriculum.

In sum, the SIDT committed little time to SOAR, and provided minimal resources to teachers. While they were allotted time to provide training to teachers during PLCs throughout the year, administrators on the team provided all but one of these trainings which led to a widespread conception by teachers that SOAR was an administrative initiative, rather than instilling a sense that the teachers on the SIDT were assuming leadership positions. Because there were some signs in growth of economic capital, but these were minimal, we asses an overall rating between Limited and Adequate (1.5) on the rubric for Phase 3 for the SIDT at Walker.

Summary of Changes in Economic Capital within and Between Schools

All schools increased their possession and leverage of economic capital overtime. In Phase 1, we were unable to differentiate between schools, and all schools therefore received the same score of limited (1). In Phase 2, Wheatley and Cervantes both earned a rating of adequate (2), while Walker remained limited (1). Though the SIDTs from Wheatley and Cervantes garnered the same rating, they differed somewhat in their strengths and weaknesses, challenges and successes. At Wheatley and Cervantes the SIDTs were able to acquire and leverage materials and time for SOAR development and delivery. The primary differences were in the amount of time the administration granted to the SIDTs for planning. Both hoped for a common planning period, asked for it and were denied. However, the SIDT from Cervantes was granted time built into the school day, unlike the SIDT at Wheatley. The greatest difference between these two schools was in the level of autonomy that came with the resources they were able to secure. The

SIDT from Wheatley had near complete autonomy. The administration and SIDT both stated that whatever the SIDT wanted in terms of financial support for materials they would receive with little question. They were also completely trusted to plan and provide PD to teachers. The SIDT at Cervantes though had little autonomy. The administration tightly controlled resources, and allotted them as they saw fit. The SIDT was closely monitored and the administration used its own power to leverage control over the group. At Walker, the group failed to move beyond abstract planning for SOAR. They had ideas about materials and how they might provide training and deliver SOAR content to students, but these ideas were never solidified. They seemed aware of the fact that they might be able to carve out time for SOAR, but this had not occurred by the close of Phase 2.

In Phase 3 of the work, the SIDT all exhibited some growth. Again Wheatley and Cervantes were rates the same, this time as proficient (3), but again there were differences in the specifics of why. The autonomy of the SIDT at Cervantes remained greatly limited by the administration, while Wheatley's SIDT continued to have free reign. Cervantes, however, had a weekly advisory period worked into the master schedule and provided teachers with a curriculum to teach, which included supporting materials. They also trained teachers on how to teach the lessons. At Wheatley the delivery of SOAR was less extensive, though the administration allow the SIDT to take over the second day of school for a daylong introduction of SOAR to students. This was followed by short sessions every three weeks that happened in conjunction with the release of grades. At Walker, there was also growth, but it was minimal and their rating fell between limited and adequate (1.5). They secured some time for the delivery of SOAR, though the time was often at less than ideal times. They were also permitted to train teachers on SOAR,

though teachers complained about the quality of the trainings; teachers thought the trainings were coming from the administration since except for the very last PLC of the year they were provided by administrators who also served on the team. Overall, the administration kept a tight grip on economic resources and time, so much so that many teachers believed SOAR was an initiative of the administration, rather than led by the SIDT.

Table XX. Economic Capital over time

Economic capital			
	Phase 1	Phase 2	Phase 3
Wheatley	1*	2	3
Cervantes	1*	2	3
Walker	1*	1	1.5

*Due to data limitations, we could not differentiate between schools and thus all schools in Phase 1 were given the same rating.

Concerns about the time burden placed on teachers were greater at Wheatley than Cervantes, and rarely arose at Walker. SIDT members at Wheatley were leaders of other initiatives at the school. We learned that they were used to dedicating their own time and resources to ensure success, but they often mentioned that there was a limit to how much they could give. Teachers at Cervantes were able to make use of time built into work, such as waiver days, to develop SOAR lessons, though they also reported working on lessons outside of school; still they mentioned the time burden concern less frequently, likely in part because they were less burdened to begin with. Lack of common planning period was mostly related to human capital considerations at Wheatley (the administration did not want teachers they perceived to be some of their strongest away from the classroom and students), while at Cervantes the principal was concerned about the financial cost of giving SIDT members a common planning period. Still, at

Cervantes the principal allowed the team more planning time than the principal at Wheatley. At Walker the issue of time burden was all but absent, not because of time they were able to secure for SOAR planning, but because of the minimal amount of time they allotted to SOAR as compared to the other two schools.

All three schools worried about integrating SOAR into the school program, though they differed in their approach to securing dedicated time. By the end of this Phase 2, Wheatley had secured the second day of school as a time to introduce SOAR to the entire school, while the principal of Cervantes had allotted a weekly SOAR advisory into the master schedule. Furthermore, by the end of Phase 2 schools Wheatley and Cervantes had commitments from their administration that they would be able to use time during preservice training days with Wheatley having a half day of training on SOAR that would be combined with training on the schoolwide literacy approach, and Cervantes being granted two half days dedicated exclusively to faculty PD. No such plan had been solidified at Walker. Still all three schools were afforded time to provide teachers with training during Phase 3. This was seen as a teacher driven effort at Wheatley and Cervantes, but as coming from the administration at Walker. In the schools where training and materials were seen as emanating from the SIDT, teachers emerged as leaders of SOAR, while at Walker, SOAR was widely regarded as an initiative of the administration.

Cultural Capital

All Schools - Phase One

Evidence of cultural capital is minimal during Phase 1, though there is evidence that DIDT members possessed some degree of cultural capital by the end of the phase. For instance, the data from sessions one and two repeatedly mention that sessions were facilitated by the

researchers or program developers, and that participation on the part of the DIDT members was primarily limited to asking questions and voicing concerns. An example of the lack of cultural capital, or leadership authority, was noted during the second day of the first session, when groups were asked to develop communication plans that they would present to members of their schools; multiple members of each of the groups expressed concerns that they would need district approval of their plans before they could actually present them. By the final session of the phase (Session 6), however, there was a marked shift. For instance, in anticipation of the arrivals of the SIDTs from each school, various members volunteered to lead small group activities. The majority of members also indicated they felt comfortable introducing SIDT members to the work of the DIDT and the core components of the innovation prototype. Only one member was vocally against assuming a leadership role, noting he was a participant in the work, but not a leader of the work in his school. Other evidence of the emergence of cultural capital by the final session included the group's willingness to push back against suggestions by the facilitators, a member stating he did not want to be "dictated to" whether and how the prototype would be adapted his school. Finally, there was a decision by the group as a whole that they would collectively answer SIDT members' questions about the innovation, rather than field question as a small panel, in order to show that they were a leadership team.

We note that there was variation amongst the school-based members of the DIDT. In particular, some teachers had previous experiences taking on leadership roles in their schools and used this as evidence of their capacity to communicate to members of their school the purpose of the innovation. This was especially noticeable at Wheatley. For example, in May 2013 (Session 4), during a whole group activity, a DIDT member from Wheatley discussed in his/her role as

teacher-leader of a group on their campus that designed and implemented a cross-disciplinary literacy initiative. Overall, evidence of cultural capital was minimal in this phase, somewhat due to lack of opportunity to demonstrate its possession. This variation leads us to assign a rating of limited (1) when assessing the possession of cultural capital.

Wheatley High School - Phase 2

In Phase 2 it became clear that there was an established history of teacher leadership at Wheatley. Teachers, many of whom were members of the DIDT/SIDT, had previously developed and led the implementation of a schoolwide cross-disciplinary literacy initiative. They spoke about leading those efforts, and regularly drew upon those experiences to assert their position as a select group of leaders in the school. During an interview in December 2013, an SIDT member explained,

...a lot of the people on that team are also people on, in other leadership capacities and that's it's a strain, I mean it tends to be true at this school that if you do one thing to change the school, you're doing almost all of the things to change the school simultaneously ...” (SIDT 1302)

This sentiment that members of the SIDT were a selective group of individuals inclined to take on extra responsibilities and leadership roles was widespread amongst its members. Two of the members were enrolled in administrative training programs, and spoke of growing into more formal leaders, above and beyond their roles as teacher leaders in their school. During SIDT meetings, SIDT members regularly challenged each other while successfully collaborating to expedite task, all while advocating for the particular context of their own school throughout the

design process. Furthermore, they were the only group who successfully recruited teachers to pilot the prototype lessons developed during Phase 1; they were also the only group to engage in the related PDSA cycle. In fact, while their use of PDSA demonstrated their willingness to take ownership over the piloting process, it also displays additional evidence of the possession of cultural capital. This is because they opted to use the PDSA cycle in a way they saw fit, as a mechanism to gather teacher feedback, rather than following the instructions given to them, which were to test whether the lessons had an effect on student behavior. They asserted that this move would better suit their efforts to further develop and refine SOAR, while creating early teacher buy-in.

While there is no data to indicate how other teachers in the school regarded the SIDT during Phase 2, there is evidence that members of the administration saw the group as a select group of teachers who were particularly competent to lead the efforts around SOAR. For instance, one administrator during our December 2013 fieldwork noted that the SIDT team was a strong group, capable of leading SOAR-related work, as well as other efforts in the school. She suggested that the DIDT/SIDT consisted of the school's passionate teachers, and distinguished them from the majority of other teachers in the building. We also learned from one administrator that administration believed in the abilities of the SIDT to navigate SOAR implementation, to the point that they were willing to be rather hands off throughout the process.

While the administration gave free reign to the SIDT, the teachers on the team expressed growing concern during Phase 2 that the administration was not involved enough. This concern peaked during the final meeting of Phase 2 when the teams were asked to discuss concerns

regarding potential barriers to implementation in their schools. Members were highly concerned that the administration was not bought in and wanted assurances that they were going to be supported. Ultimately, while the SIDT acted as leaders of the innovation during its designing and piloting, and they were given autonomy by the administration, they interpreted this as lack of buy in and support. And, when as they initially formulated what they would need to address this barrier, their initial conclusion was to ask the researchers and program developers to speak to the administration on their behalf, demonstrating limits to their level of cultural capital. However, the SIDT eventually resolved to speak to the administration directly, but only after encouragement and coaching from a school administrator on the DIDT who was not from their school that this would be a better approach.

SIDT members demonstrated a high degree of cultural capital during SIDT meetings, were able to approach teachers in their school to bring them into the piloting process, and were trusted by their administration and afforded autonomy. Still, in the face of uncertainty from authority figures in their school, they were hesitant to speak up for themselves and the innovation, revealing the limits to their possession of their cultural capital. This leads us to assign a rating between adequate and proficient (2.5).

Wheatley High School - Phase 3

Throughout Phase 3 SIDT members advocated on behalf of SOAR, approaching the administration when resources were needed, and embracing an ownership role for implementation and further development. It was clear that members of the SIDT, administrators and teachers saw the SIDT as a leadership entity, with a high degree of leadership capacity, and

the deserved autonomy to make decisions and lead SOAR implementation and related PD. An SIDT member noted, “[the administrators] are trusting of us... We like being trusted, and we feel like we deserve it” (1302). Teachers also saw the SIDT as leaders with trust and autonomy from members of the administration who “let the teachers handle it rather than influence what's going on or anything like that. They get information from the committee and they just seem to just go with that” (TWalker0). This comment by an administrator demonstrates similar sentiments, “this is teacher led, teacher driven, and when you see that, our, you know, administration here pretty much is just letting them, you know, do what they need to do, because it's working” (1854).

Administrators also noted that the process has led to the emergence of teacher leadership. Engaging in the SOAR process has provided a staging ground for SIDT members to develop leadership skills. For instance, one administrator stated, “it’s not necessarily our traditional, in a sense, department leaders... it’s giving people a really big – an opportunity for people who want to take on that leadership role, it gives them an extra opportunity...” (1356)

Perhaps their greatest demonstration of cultural capital came during the final SIDT meeting of the year, when members of the team lead a workshop presented to attendees from the scale out schools who were being introduced to the work, and about to embark on their own process of adapting SOAR to their local context and then implementing it in their schools. SIDTs from the innovation schools were asked to choose a topic for their workshop, and the SIDT from Wheatley chose to present on “Teacher Leadership for Change”. In this workshop, they shared what they believed were the necessary components of a successful leadership team, emphasizing the various roles people should take on, and tapping into the talents present within the group, as well as identifying talents of faculty members who were not part of the team. They emphasized

that while they are the clear leaders of SOAR in the school, and that this meant focusing on teacher ownership of the innovation, iterating and adapting SOAR so it continued to grow, gathering feedback from teachers and students and leading PD.

Even in rare instances when teachers expressed negative opinions of the SIDT, their reasons could be tied to the team's possession of cultural capital. For instance, teachers who participated in a focus group during our April 2015 fieldwork visit to the school described the SIDT as being inaccessible at times. One described the team as a bit "clubby," and said that "the group of teachers that are [on the SIDT] are the group that were left over from [the team that headed the literacy initiative], and they were clubby also..." (T1440); in other words, the SIDT displayed an air of exclusivity in the eyes of this teacher.

SIDT members noted that participation in this particular work provided opportunities for growth as a leader, but also attributed some of their ability to embody leadership roles to work developed over a longer period of time. Perhaps most telling is this excerpt from the Teacher Leadership for Change workshop shared by a member of the Wheatley SIDT:

...our story at this point is that [we are] more or less in charge of academic culture throughout the entire school. We've kind of bifurcated the leadership responsibilities at our school such that the actual, official administrative staff, they're in charge of discipline, the business of the school, some of the outward facing PR of the school, but it's really us that is taking charge of what happens within the classroom that can change to make the school a more effective place. And it took us several years to figure out that that was a possibility - that we could begin to not just implement priorities but set the academic priorities of the school. That is a big deal. I don't think any of us when we

started our involvement with our little team at [Wheatley] even conceived that that was a possibility that teachers would be engaged in that kind of activity. But I think we feel a lot more empowered now to use what we know.

The overall perception of the SIDT by all stakeholders that they were a group of teacher leaders who were spearheading SOAR with skill, and the fact that they were given complete autonomy to do their work, paired with their own cohesive self-belief that they were leaders in the school leads us to assign the highest rating on our rubric, excellent (4), in our assessment of the SIDT's possession of cultural capital.

Cervantes High School - Phase 2

Similar to Wheatley, the members of the SIDT at Cervantes were a selective group, who were involved in many other activities at their school, including implementing a schoolwide literacy program. And while they were actively engaged at the meetings throughout Phase 2, they demonstrated less cultural capital than the SIDT members from Cervantes. Briefly put, they were consistently motivated to the work required, but strongly concerned about that the administration were likely to undermine any plans they made. In one DIDT member's words, "Well, being an outsider working with [Cervantes]... listening to some of the problems that they face [with their] administration... [their] feeling that their administration is the enemy, and me trying to bridge that gap..." Bridging the gap meant trying to explain that the administration was not the enemy and that instead they all needed to learn to work together. The SIDT was not comfortable, and often even felt vulnerable in their interactions with administration. They had little autonomy, and while they were able to envision how they wanted SOAR to be implemented, what the delivery to

the students would entail, and the necessary training for teachers, they lacked the cultural capital to advocate for their needs and the program's.

Though the group was able to demonstrate evidence of leadership history, their cultural capital in regards to how they envisioned their own position in the school was almost non-existent. Furthermore, there is no data regarding administrators' views of the group, nor are there reports indicating teachers' perceptions. Given the available but limited data, we assess the SIDT's level of cultural capital as limited (1) according to the rubric.¹

Cervantes High School - Phase 3

In Phase 3, SIDT members demonstrated an increase in their level of cultural capital, especially in regards to advocating for needed time and materials. The clearest example of this came at the end of the Phase, when during the final meeting of the year, the team devised a calendar for PD and planning time that they would request from the administration, as well as a detailed budget. During their development, the team spoke with authority about what was needed for SOAR to continue to grow.

¹ Note that scores do not have to increase over time, and in fact may decrease. In this instance, we see such an occurrence not due to backsliding on the part of any particular member or group, but rather the heterogeneity of members assessed in Phase 1 versus the school-based groups in Phase 2.

The SIDT still had restrictions placed on their autonomy by the administration, though they were afforded more autonomy than in the previous phase. They spoke more about administrative involvement rather than control over the work. They also looked to the principal as the enforcer of compliance amongst teachers, indicating that they did not see themselves of having such legitimacy. In an interview during the April 2015 fieldwork, one administrator stated, “When SOAR was initiated and when it was first brought, it was the voice of the teachers. It wasn't just the voice of the admin. We brought the teachers in.” The comment implies that ultimate control and ownership still sat with the administration, who allowed the SIDT (and perhaps other teachers) to take an active leadership role. Furthermore, the SIDT collaborated with the administrators throughout the process; they presented plans and materials to the administrators and received feedback before they presented to the faculty.

In fact, one administrator noted that another administrator had been designated the “overseer” of the SIDT. Another administrator explained, “not all administration is comfortable with people going off” and “coming up with something that they don't really have a lot of control over” (AP1351). The principal remained very involved with the innovation, and she noted that she had spent considerable time thinking through implementation and the next steps for the upcoming school year. The principal's involvement here, was more about an overall philosophy of leadership, which may have inadvertently denied the acquisition and leverage of cultural capital by the SIDT or other teachers in general. She explained she was the “rudder,”

rudder... they are a small piece of the ship, but they are, at the end of the day, the rudder.

So it is only going to go in the direction where the rudder is pointing ... those of us with a lot of experience know that at the end of the day, as principal, [you] want to do what the

building wants to do. And yet you also have to keep an eye to their – students' performance and what the parents want for the children, too, you know, so it's not just, you know, this – one perspective.... It's a big ship and it's a little rudder, so you just have to steer it in that direction...

Ultimately it was as if there was co-ownership of the innovation between SOAR and the SIDT, though the SIDT's approach was to stress it was a teacher-led- not just SIDT-led initiative.

The SIDT shied away from presenting themselves as clear leaders of the innovation, but this did not make it so that teachers saw it as an initiative of the administration; this was because the SIDT's approach was to emphasize that SOAR was a grassroots effort. Rather than embodying a hierarchical position of leadership, they emphasized the importance of all teachers' voices and expertise, even though they continued to manage the work of SOAR. In fact, teachers regularly praised them for their hard work, and recognized that the curriculum was provided by the SIDT. One teacher noted, "I'm amazed at how much they do" (T1807).

One area where they differentiated themselves from the faculty was in their use of "floaters" – SIDT members who did not have advisory periods of their own and instead went from classroom to classroom. Floaters provided extra supports, filled in when teachers were absent, and observed advisory periods in order to monitor implementation. Generally teachers appreciated the floaters, but a couple indicated that they felt they were being judged by their peers, and found this insulting. Teachers with this stance essentially felt that the SIDT were not administrators and therefore did not have the right to "judge" them, essentially denying them any status of leadership.

In sum, the SIDT possessed more cultural capital by the end of Phase 3 than they had at the end of the previous phase, but this was only exhibited in limited ways. They were comfortable creating a plan and advocating for the time and material needed to carry it out. Though they resisted taking a leadership stance with the faculty, preferring a grassroots, egalitarian tone, they still acted as leaders, particularly through the ongoing development of SOAR, the monitoring of its implementation, and the provision of PD to teachers. Still they continued to be heavily influenced by the administration, though the influence was more often perceived by the SIDT as supportive, rather than controlling. The SIDT were experts on SOAR, and even administrators attended the regular trainings they held. Overall, for Phase 3, we assess the level of cultural capital possessed by the SIDT at Cervantes as proficient (3).

Walker High School - Phase 2

Unlike the other two schools, data on the SIDT's cultural capital in Phase 2 indicates an overall lack of cultural capital, particularly in regards to their ability to embody leadership, demonstrate ownership, and present themselves as leaders. This is especially interesting given that the members of the SIDT actually occupied formal positions of authority within the school; most were department chairs and members of the school's leadership team, meaning they met regularly with the administration prior to their involvement in SOAR. The SIDT from Walker differed in numerous ways from the other schools; one important way was that the members did not self-select to participate in the work; the principal had assigned them to the DIDT/SIDT. Throughout Phase 2, the team's attitude and approach was viewed as negative and disinterested by program developers, researchers, and even other DIDT and SIDT members, and this negativity escalated as the Phase progressed.

Interviews with SIDT members during the December 2013 fieldwork visit revealed a lack of belief in the effectiveness of the core components amongst some members of the team, a lack of ownership over the innovation, including an unwillingness to invest time, and the failure to meet as a team to work on SOAR. In fact, during the fieldwork visit, SIDT members reported that their first meeting as a team was only one week earlier. An overall lack of leadership, willingness to engage in the work, and belief in SOAR or the team's ability to design and implement it was expressed not only by SIDT members, but by administrators as well. The lack of progress made by the SIDT was a point of administrative consternation. Also during the December 2013 fieldwork visit, one administrator openly expressed frustration with the lack of work and evidence of how "it's gonna help our kids". This sentiment was catalyzing this administrator to take more of a lead, voice frustration, and call for a change in DIDT leadership.

Throughout Phase 2, the team was afforded little to no autonomy on the part of the administration, nor were they actively supported by it. After attending SIDT meetings, they would often return to the school and have their plans rejected. In an interview, a DIDT member who was not from Walker remarked

[Walker] teachers need to see the support of their principal, and in that school, the principal didn't really support what the DIDT had come up with...[T]hey would go back to the school and the principal would be like, well, here's what we're going to do, so they basically would be starting over at every session because the principal just gave them a new way to go...

The team questioned the appropriateness of the prototype lessons, failed to pilot them or any other self-developed ones, and resisted engaging in PDSA. They stated that their approach to implementation would be through marketing the innovation, and that they were unsure that PDSA was a tool they wished to use. While this resistance to participating in the work in a mandated way could be read as cultural capital, their alternate plans failed to materialize as well. Furthermore, it reflected the group's lack of autonomy and power to make decisions about SOAR. For example, at the May 2014 SIDT meeting, teams were introduced to the process of reviewing PDSA data and making refinements to the innovation based on findings. A member of Walker's SIDT openly questioned the utility in learning about refinements since he believed that refining would be something the administration, not the SIDT, would do.

Marked by negativity, conflict and poor attendance throughout the phase, the team suffered its greatest affront to cultural capital when just prior to the summer institute the principal singlehandedly removed both DIDT members of the group, as well as some of the SIDT members, and replaced them with new teachers. The team showed up notable demoralized. In addition, there was another indication that the team had little autonomy and was not trusted as a legitimate body to lead the work; the principal hired a consultant to attend the summer institute to work with the SIDT. In sum, we characterize the level of cultural capital displayed by the SIDT at Walker as absent (0).

Walker High School - Phase 3

In addition to the removal of multiple members of the DIDT/SIDT at the end of Phase 2, the team experienced another shift in its composition when SIDT1313 transferred to the school, and joined their team. According to numerous members of the SIDT and the administration,

SIDT1313 became the group's driving force. An upside of this in general was that the team began to function better. SIDT 1313 gathered other members for meetings, organized PLCs to train teachers, and coordinated the work of the team. There was, however, a serious drawback to this approach. The majority of teachers came to associate SOAR as an administrative initiative. The clearest example involved a disciplinary modification form the team had developed in the prior phase, which they wanted to serve as the foundation for everything else having to do with SOAR. Teachers, however, regularly reported that the form was a tool of the administration to make it harder for teachers to send students out for formal disciplinary action.

Interviews with SIDT members during the October 2014 fieldwork visit also indicate a shift as a result of SIDT1313's arrival. SIDT1311 stated, "We feel like he's helped us a lot." More specifically, SIDT1311 describes how SIDT1313 has provided momentum for the team and helped get the team moving in the correct direction by coordinating the logistics, such as making sure an SIDT member was available to get copies in the workroom for the teachers and that the team was prepared to present their work to their teachers. With SIDT1313 at the helm, SIDT1311 framed the rest of the team's work as "Filling in the boxes, and we all helped him." SIDT1309 describes this dynamic more frankly, saying "it's pretty much just helping out SIDT1313." In other words, while the team and its work might have received an infusion of energy, the other members of the SIDT fell into a role of supporting role of this new addition to the team.

Furthermore, the model for training teachers at Walker was through their PLCs. Unlike in other schools however, where training activities were diffused across members of the group, this meant according to SIDT1313 that he became the "voice" of the group. During our October 2014

visit to the school, some teachers reported that SOAR came to Walker from Wheatley when SIDT1313 changed schools; they failed to even recognize the presence of the team. Later, during our April 2015 visit, we learned from members of the SIDT and teachers that SIDT 1313's prominent role as the leader of SOAR reinforced the idea that SOAR was an administrative initiative, rather than something teacher led. This led some teachers to be "angry" and report that "their autonomy was being infringed upon" (memo on SOAR feedback). Notes from the April 2015 SIDT meeting also reflect this reality. An SIDT member (not SIDT 1313) reported that teachers

were frustrated, and they felt that they had to present what we had given them. Like it was coming down from admin... And one of our PLC meetings was a big blow-up about that, and that we were pushing this on them...

At the summer institute in June, SIDT members reported that the result was that "had to change 1313's role over time because they heard from teachers that they did not like having an administrator out front, and that the presentations needed to come from the teachers."

This backlash may have been the catalyst for the SIDT to begin to emerge as owners of the innovation. As SIDT1313 stepped back, teachers on the team became more visibly active. Four members of the team led the final SOAR training PLCs of the year. In an interview in April 2015, SIDT1330 explained

[SIDT 1313 has] been a great leader, but again, it's been his leadership to the point where if he wasn't doing some things, things weren't done. So, you know, he intentionally took a step back and we – we had teachers presenting the lesson at the PLCs. So again, I think that helped kind of ease that idea that, you know, this was all administrative.

The shift to a teacher led PLC led multiple teachers to remark upon a shift in the leadership of SOAR from the administration to the SIDT.

Still, certain behaviors by the group as whole led researchers and program designers to express concerns about the group. On the final day of the summer institute two incidents stood out. First, Walker's SIDT was not prepared for their workshop; they skipped the previous workshop, leaving attendees to wonder where they had gone. Second, the team left the building for lunch and didn't return until midway through the first post-lunch workshop. Upon returning they spread candy and chips all over the table and joked around, instead of working. SIDT1313 purposely did not attend the final work session of the day, hoping it would encourage other SIDT members to take on greater roles, and depends less upon him. While other schools independently planned for the next school year, Walker's SIDT was unable to organize their session productively, and needed constant guidance from facilitators.

Overall, data from Phase 3 demonstrate that the SIDT struggled to establish themselves as leaders within the eyes of the teachers as they implemented SOAR schoolwide. In fact, the principal levied control over the group by first reorganizing the SIDT and then inserting a new member to take control. The dominant role played by this new team member, an administrator, affected how the SIDT saw themselves (as his supporters rather than leaders), and also strongly influenced teachers' framing of SOAR. However, with the "blow-up" toward the end of the year at the PLC, and the subsequent shift to have four teacher-members of the SIDT lead the final PLC, teachers reported that teachers had started to become leaders of the innovation. These developments in Phase 3 mark an increase in the presence of cultural capital within the group, though it was primarily concentrated within one person. However, the shift toward the end

indicates some increase for the team as a whole as well. We assign an overall ranking between limited and adequate (1.5) to the Walker SIDT during Phase 3 of the work.

Summary of Changes in Cultural Capital within and Between Schools

Table XX. Cultural Capital over time

Cultural capital			
School	Phase 1	Phase 2	Phase 3
Wheatley	1*	2.5	4
Cervantes	1*	1	2
Walker	1*	0	1

*Due to data limitations, we could not differentiate between schools and thus all schools in Phase 1 were given the same rating.

Still while the experience of leading the design and implementation of the schoolwide literacy program at Wheatley had molded a group of individuals into a collective leadership body, this had not occurred to the same extent at Cervantes. Part of this was likely due to the different approach of the administration at Cervantes, which was more heavy-handed. In fact, while the implementation and professional development at both schools was teacher-driven, members of Wheatley felt that in subsequent years the administration had been somewhat too hands off in its support. Yet at Cervantes, one SIDT member reported that the administration had in ways coopted the program and removed teachers' from being its leaders. They therefore began Phase 2 with somewhat less cultural capital than their counterparts at Wheatley.

Discussion/Conclusion

In summary, looking at how the different kinds of capital developed from phase to phase within each school, there seems to be a story about how the individual forms of capital are developed and how they are co-developed with each other. At Wheatley, going from Phase 1 to

Phase 2, the SIDT made improvement to all of their capitals. They leveraged pre-existing organizational structure from the previous school-wide innovation, formal and informal relationships, knowledge and expertise in order to design, develop, implement and refine SOAR, to engage others in their work, and use some resources provided by the administration to do SOAR-related activities. Their relatively strong human, social and cultural capital that they had gained from the previous school reform seemed to enable them to work through some issues that were more challenging –and in some cases, nearly insurmountable– to the other schools. In most cases, they had been ahead of the other two schools and by the end of Phase 3, we rated them as adequate or proficient for all the forms of capital.

Table XX: Summary of human, social, cultural, and economic capital through three phases of SOAR innovation

School	Phase 1				Phase 2				Phase 3			
	Human	Social	Cultural	Economic	Human	Social	Cultural	Economic	Human	Social	Cultural	Economic
1	1.5	2	1	1	2.5	3	2.5	2	3	3	4	3
2	1	2	1	1	2	4	1	2	3	4	2	3
3	1	2	1	1	1	0	0	1	2	1.5	1	1.5

Note. Due to data limitations and the design and development process in Phase 1, we are unable to differentiate social, cultural, and economic capital among the schools. School 1 is Wheatley; School 2 is Cervantes; School 3 is Walker.

At Cervantes, the SIDT did not have the experience and expertise that the SIDT at Wheatley had, but they did have a very strong social network. From the beginning of Phase 2 when we were able to differentiate social capital among the school teams, the SIDT at Wheatley demonstrated that they had strong social cohesion and operated well as a team. They showed that they were able to get other teachers to test the prototype lessons and got them to create and develop part of the innovation before it was implemented at their school. They might not have had the same level of cultural capital as Wheatley as their administrators strongly limited their autonomy, but their ability to corral their fellow teachers to participate in the process and to

leverage those teachers' own skills and knowledge enabled them to do SOAR work and develop their human capital. By the end of Phase 3, they had developed their human and economic capital to the same level as the SIDT at Wheatley.

Unlike Wheatley or Cervantes, capitals at Walker did not steadily increase from phase to phase. In fact, it seemed that their social and cultural capital had evaporated almost entirely during Phase 2. In addition to autonomy limitations and resistance from the principal, the SIDT at Walker were disengaged in substantial portions of the work, and they struggled to work together throughout Phase 2. This lack of social and cultural capital severely limited what they were able to learn from the sessions in Phase 2, and what they were able to do with the limited resources given to them by the administration. At various points throughout Phase 2, the researchers were even concerned that they would leave the innovation altogether. The shift in what they were able to do, and the small but substantial improvements they were able to make at the beginning of Phase 3 started with the infusion of human and cultural capital from SIDT1313, bringing his knowledge and expertise from being a leader of an earlier literacy initiative at Wheatley as well as his work on the SIDT there, paired with his role as an SIDT member and an administrator at Walker. When SIDT1313 deliberately took a step back, the SIDT were able to build on what they had done as a team with SIDT1313's guidance to continue doing the work. By the end of Phase 3, they were on their way to being adequate in their human, social and economic capital. Still while their level of cultural capital had slightly improved as well, once SIDT1313 stepped back, it was questionable whether other members of the team had also developed cultural capital during this time.

Our analysis seems to show that human capital is required to implement and adapt school reforms or initiatives, but other forms of capital can moderate its function in implementation and adaptation, and even more importantly, they can affect its development. The evidence suggests that a school team with strong social or cultural capital can effectively garner its members and leverage their individual knowledge and expertise to do the work. The SIDT at Cervantes may not have had as much human capital as the SIDT at Wheatley at the beginning of the process, but they were able to use their strong social capital to get their faculty to participate and buy into the innovation process, and by the end of Phase 3, they were able to do just as much as the SIDT from Wheatley. For Walker, their human capital did not increase significantly until there was an infusion of capital from SIDT1313 and a change of leadership in the team. In other words, to play on the adage of “it takes capacity to build capacity,” our work suggests, “it takes capital to build capital, but existing capital can be leveraged to build other capital.”

While each school has its own story over time, and each began and developed forms of capital differently, this is only part of the story. Our findings lead us to postulate that these forms of capital do not develop or function within vacuums, separate and apart from each other; rather, they influence each other. Take for example human capital and economic capital: teams were less likely to know what they could or could not leverage (economic capital) when their understandings of what was necessary and what was possible were unclear (human capital). For instance, midway through Phase 2, an SIDT member from Wheatley posed the question, “to what degree are school assemblies or other school meetings set in stone for the year?” (FieldNoteLog_FWISD_013014). The team at this point knew they needed dedicated time, but they were still unsure of how much influence they had in the allotment of time.

At the end of Phase 1, members of the DIDT lamented that while they would like to have dedicated for SOAR delivery, this would not be possible because the master schedule was already set in stone for the upcoming year. Yet in Phase 3, we saw that the administration at Cervantes was willing to shift the master schedule and change the time of SOAR advisory once the SIDT brought to their attention that teachers were unprepared at the beginning of the day, and a large number of students were coming in late. This example also likely reflects the increase human capital, insofar as the SIDT was able to demonstrate to the administration that these problems were occurring, as well as increased social capital; knowing time is such an important resource in schools, it is unlikely that the administration would grant the SIDT a more valuable timeslot if they did not trust them to make good use of the time. Additionally, the SIDT's ability to gather this feedback also indicates the presence of social capital between the team and the rest of the teachers in the building. Finally, this example also demonstrates the operationalization of cultural capital on the part of the SIDT; to be able to approach the administration and request a change in time, with the authority to advocate for SOAR, demonstrates ownership and the embodiment of leadership by the team.

IMPLICATIONS

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Appendix

Forms of Capital Rubric

Rating	<i>Human Capital</i>	<i>Social Capital</i>	<i>Cultural Capital</i>	<i>Economic Capital</i>
0 Absent	Individually and collectively, there was a lack of demonstration of skills or expertise to design, develop, implement and refine SOAR. For example, the SIDT cannot carry out the PDSA cycle or design and deliver PD.	Individually and collectively, there was a lack of demonstration or even negative demonstration of social connections, cohesion and trust. The SIDT members are isolated or spurned by others.	Individually and collectively, the SIDTs are not seen as legitimate leaders, and they have no autonomy or decision-making authority. They are not trusted to engage in activities such as PDSA or deliver PD and they do not feel entitled to ask for time, money, materials, or support to do their work.	No time and resources are provided to the SIDT. They cannot leverage material resources to engage stakeholders as they design, develop, implement and refine SOAR.
1 Limited	There was limited demonstration of skills and expertise to design, develop, implement and refine SOAR. A few SIDT members have a vague idea of what needs to be done, but as a team they are limited in what they are able to accomplish.	A few SIDT members have social connections with each other and with other teachers and administrators. As a collective, the SIDT lacks strong social cohesion and trust among themselves and with others.	Individually a few SIDT members are seen as legitimate leaders in the school, but as a whole, the SIDT is not seen as a legitimate leadership team, they have little to no autonomy or decision-making authority, and they do not feel that they can ask for resources to do their work.	The administration tightly controls and restricts the time and resources that the SIDT needs. They are unable to leverage time and material resources to effectively design, develop, implement and refine SOAR .
2 Adequate	A few SIDT members demonstrate they have an understanding of what is needed to design, develop, implement and refine SOAR, and they are able to specify and implement their plans independently, but as a team the SIDT is unable to engage in PDSA or design and deliver PD without significant support.	As a collective, the SIDT has a working relationship with each other, and many of the SIDT members have good relationships with other teachers and administrators. However despite the relationships with others, the SIDT members are unable to leverage these ties to effectively engage in designing, developing, implementing and refining SOAR.	Individually, many members of the SIDT are seen as legitimate leaders and collectively, they are seen as leaders by some teachers and administrators. Their autonomy is regulated by the administration. They are allowed to engage in the PDSA process and deliver PD, but their interpretations of what has been learned through PDSA and the subsequent recommendations for action are not always accepted by administrators and teachers. Moreover, the team needs significant external support to ask for resources to do their work.	The administration loosely controls the time and resources it allots to the SIDT to design, develop, implement and refine SOAR, but the SIDT is unable to leverage such supports to facilitate the work.
3 Proficient	As a collective, the SIDT demonstrates that they possess most of the skills and expertise needed to design, develop, implement and refine SOAR. However, they may still lack the ability to do the more nuanced work such as documenting the PDSA process or deliver effective PD. In general, as a team they can do the work but still need minor support.	As a collective, the SIDT exhibits social cohesion and operates as a team. Individually, many of the SIDT members have strong social connections with other teachers and/or administrators. However, they are unable to engage other teachers and administrators on their own and may require external support to do so.	Most individuals on the SIDT are seen as legitimate leaders in the school and they have autonomy and decision-making authority. They are trusted to design, develop, implement and refine SOAR, but they are unsure of how much authority they have to engage in the work. They do not feel entitled to make requests for time and material supports.	Adequate time, money and materials are provided to the SIDT, with little to no restriction or control by the administration. Despite adequate resources, they are inconsistent in their ability to mobilize these resources to support the work and incentivize stakeholders to participate in SOAR activities.
4 Excellent	As a collective, the SIDT demonstrates they have expertise in the various skills needed to design, develop, implement and refine SOAR. They demonstrate the skills necessary to integrate PDSA into their work and complete the process independently, sometimes revising specific tools to better meet their needs. The PDs they designed and delivered are compelling to the faculty.	As a collective, the SIDT demonstrates strong social cohesion and operates as a cohesive team. They also have strong formal and informal social connections and can use them to engage other teachers and administrators in SOAR activities.	Collectively, the SIDT is seen as a legitimate leadership body, and they have autonomy and decision-making authority. For example, they are trusted to engage in the process of PDSA and their interpretations of what has been learned and recommendations for action are accepted. They also feel entitled to ask for time, money, materials or other support needed to do their work.	Adequate time, money and materials are provided to the SIDT, with little to no restriction or control by administration. For example, the SIDT can deliver PD as they think is necessary. The SIDT is also able, if necessary, to find resources from external sources to do their work. They can leverage such resources to effectively carry out the work, and incentivize school stakeholders to participate in SOAR activities.