

ABSTRACT

Carl W. Cruthis, SYMPHONIC LEADERSHIP: ORCHESTRATING TEACHER LEADERSHIP TO DEVELOP A PEER COACHING PROGRAM FOR INQUIRY-BASED INSTRUCTIONAL PRACTICES (Under the direction of Dr. Matthew Militello). Department of Educational Leadership, May, 2024.

In the participatory action research (PAR) study, I examined the extent to which a group of teachers collaboratively developed a peer coaching program to support and increase the use of inquiry-based instructional practices in middle school classrooms. Using participatory action research methodology guided by activist research and community learning exchange (CLE) methodology and protocols, the PAR theory of action was: *If* the instructional support team collaboratively designs a peer coaching program that supports and improves inquiry-based instructional practices *then* teachers will have support to develop the skills, knowledge, and disposition to implement inquiry-based instruction. Over sixteen months of research, I conducted co-practitioner researcher (CPR) meetings with the instructional support team (IST) and facilitated CLE meetings and coaching conversations. I analyzed data on how teachers isolated themselves in silos of practice and determined barriers that prevent teachers from changing their educational practices. Two findings demonstrate how a peer coaching program increased and supported inquiry-based instruction: (1) teachers engage in professional learning and change teaching practices when we set up a non-judgmental collaborative culture that supports their learning and change, and (2) the principal needs to manage systems and structures that provide the appropriate support and guidance for encouraging experimentation. The study results support school leaders in building teacher capacity to serve as peer coaches and increasing the use designated instructional practices. By creating a culture in which teachers participate in professional learning with systems and structures that provide guidance and flexibility to support experimentation, teachers engage in peer coaching cycles and shift their instructional practices.

SYMPHONIC LEADERSHIP: ORCHESTRATING TEACHER LEADERSHIP TO DEVELOP
A PEER COACHING PROGRAM FOR INQUIRY-BASED INSTRUCTIONAL PRACTICES

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DEDICATION

for Collin, Aubrey, & Abigail

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CHAPTER 1: NAMING AND FRAMING THE FOCUS OF PRACTICE (FOP)

The conductor of an orchestra doesn't make a sound. He depends, for his power, on his ability to make other people powerful. Benjamin Zander (2008)

Lecture, copy notes, and repeat; this is how I remember school. Every day we would walk into class, listen to a lecture, copy the teacher's notes, and repeat the process in the preceding courses until the last course of the day. Only in this final period of the day could my peers and I work collaboratively and become part of the learning process. The course was concert band, and the experiences were life-altering.

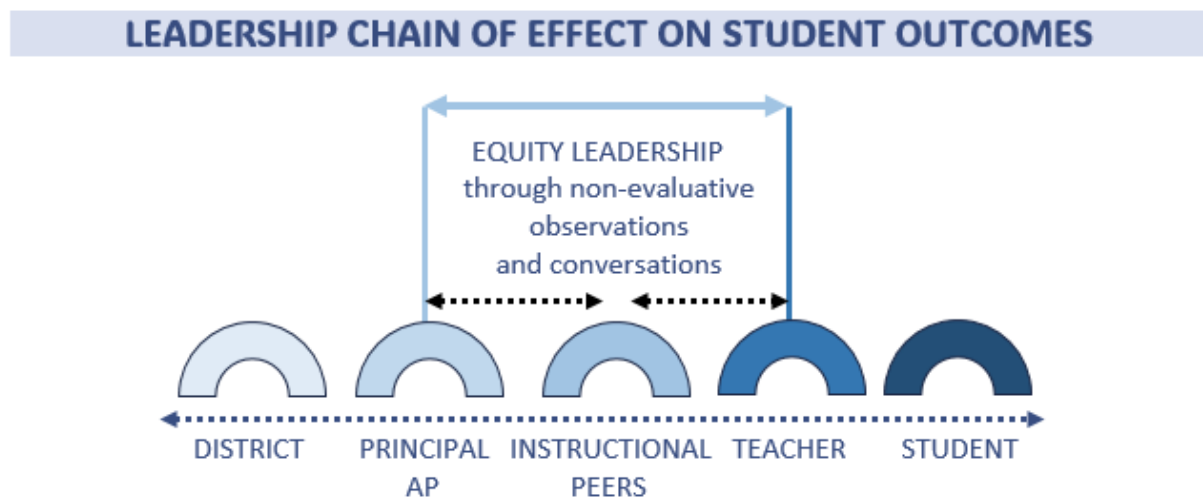
In the participatory action research (PAR), I used an inquiry-driven process from performing arts – a symphonic approach -- to design and implement a peer coaching program that was intended to support and improve inquiry-based instructional practices of middle school teachers (Hadar & Brody, 2010). Inquiry-based teaching and learning, much like concert band, fosters the premise that a community of learners work collaboratively to achieve a common goal. A musical ensemble operates within a set of established boundaries and expectations that provide structure yet remain flexible for individuals to use their interpretations, expressions, and personal narratives as a part of the process. The autonomy of self-expression within a collaborative network is why each performance of Beethoven's 5th symphony can sound new and innovative. This collaborative approach relies on musicians to give feedback to their peers in rehearsal and throughout the performance. The symphonic approach offers a metaphor and a process for engaging a group of veteran teachers, who work with beginning teachers, in a peer coaching process.

Previously, I had worked with an Instructional Support Team (IST) at a rural high school in Eastern North Carolina that successfully established a similar collaborative network with an initiative we called a stampeding strategy. In this initiative, teachers planned, used, and reflected

on high yield strategies they had learned during in-service professional learning. As an assistant principal, I paired with a teacher and served as a coach as the teacher planned to use the strategy, assisted in the classroom when implementing the strategy, and engaged the teacher in a reflective conversation at the end of the cycle.

At the end of the initiative, the IST members observed an increase in the transfer of practice from in-service professional learning to classroom instruction. However, because we only worked with a limited number of teachers, we did not achieve schoolwide use. This experience served as a probe, a small experiment, to fashion a participatory research project (PAR) and study with a larger scope. In the PAR, I investigated how the IST members with whom I worked as a principal in a different school can develop their knowledge, skills, and disposition as peer coaches in identifying key assets and building internal teaching capacity in inquiry-based teaching and learning. My role was to support IST members to develop the knowledge and skills to support beginning teachers. I relied on the leadership line of effect to ensure that I support IST members sufficiently so that they can support teachers who are responsible for transferring this to the classroom (see Figure 1).

As the principal, I conducted the PAR project and study at a middle school in Eastern North Carolina. Woodland Park Middle School is in the heart of the Woodland community. The school has a strong instructional team of energetic teachers and support staff focused on continuous school improvement. The staff's demographic composition of 76% White and 24% Black, Hispanic non-white, Asian, and multi-racial does not reflect our student demographic composition of 53% Black, Hispanic non-white, Asian, and multi-racial. In addition, 47% of students are Economically Disadvantaged (receiving free or reduced lunch). The disproportionate structure in our demographics continues to create a cultural disparity



Note. Adapted from Tredway et al. (2012).

Figure 1. Leadership effect on student achievement.

requiring high levels of transparency to increase staff awareness and understanding of all students, their individual experiences, and their personal learning needs to enable success for every student.

As the orchestra conductor when I was a teacher, I was responsible for weaving the ensemble's interpretations into a shared vision. To accomplish this, a conductor sets the stage for the musicians to have a gracious space to express their personal (or musical) narrative, develops a collaborative atmosphere in which each performer has an interpretive voice, recognizes individual strengths, selects repertoire and venues that highlight and build upon the assets of the groups, and finally celebrates the success of the ensemble (Hughes, 2012; Talgam, 2015). Successful conductors understand what Zander (2008) meant when he said, “the conductor of an orchestra doesn’t make a sound. He depends, for his power, on his ability to make other people powerful” (p. 17).

As the principal and the conductor for the PAR, I worked with the IST members who coached teachers. By setting the stage, choosing the general direction, and cultivating trust among members, we collectively worked as an ensemble and integrated inquiry teaching and learning into middle school classrooms. Next, I outline the focus of practice (FoP) and the rationale, describe the assets and challenges within the context of the school, anticipate the significance the project may have on the school and the field of education, and identify the connection to issues of equity that the FoP addresses.

Focus of Practice

In choosing a focus of practice (FoP), I wanted to examine a school issue closely so that as a team, we could impact change in the school organization and offer guidance to the field of education (Bryk et al., 2015). I worked with the Instructional Support Team (IST) to design and

implement a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers. In-service professional learning outcomes that utilize coaching result in the highest transfer to teacher practice (Joyce & Showers, 2002; Kraft & Gilmour, 2016); in this case, as the principal, I collaboratively designed peer coaching support to increase the use of inquiry-based instructional practices addressed during in-service professional development. When principals work collaboratively with their teachers, they recognize and cultivate teacher leadership that seeks to break down the norms of privacy that are entrenched in school culture (Danielson, 2006).

Rationale

I chose a focus on peer coaching as an essential instrument to build the instructional capacity of our teachers in inquiry-based instructional practices because peer coaching can strengthen teacher agency and foster pedagogical growth and development if implemented with key attributes of peer coaching (Charteris & Smardon, 2014; Hagen et al., 2017). The focus of practice emerged from consulting anecdotal records and observational data from past in-service professional learning initiatives. For example, the facilitator of a past professional in-service learning modeled pedagogical practices, but without coaching, the transfer to practice and use of strategies were minimal. In their evaluations of teacher in-service professional learning, Showers and Joyce (1996) found that as few as 10% of participants made a transfer to practice; however, the number of participants that transferred their learning into practice when paired with peer coaching increased significantly. In a study of four teachers who first worked on their own to change practices and then engaged in peer coaching, they changed practice only with peer coaching (Kohler et al., 1997). While peer coaching is not a new idea, implementing with care and consistency requires intentionality, and that is the model we designed and used in this PAR.

Conversely, in the typical district in-service, the organizers of the professional learning typically use what Freire (2018) terms the banking method of education. They provide information about a topic, but they do not model or use methods that teachers should use to engage students. The result is limited transfer as the teachers are docile learners who are unaware of their creative power. To ensure compliance, our school district usually supported initiatives through walkthrough observations, learning walks, and formative assessments, which they used to gauge implementation. These “check in the box” initiatives grounded our teachers in the notion that “I do, we do, you do” was practicing gradual release through direct instruction and that asking high-level questions alone was “good” teaching (Maynes et al., 2010). However, to extend learning for teachers, those in charge of professional development need to understand the teachers' experiences, and they need to create meaningful learning experiences that include modeling and practice for them that connect the material to their needs personally and professionally (Aguilar, 2013). Teachers who have deep experiences in the pedagogy that we expect them to use with students are more likely to use them in the classroom (Britt, 2023; James, 2023).

During the 2019-2020 school year, in my former school, I formed an Equity-Centered Network Improvement Community (EC-NIC) with a small group of math teachers (Bryk et al., 2015). In our EC-NIC, we moved away from the banking method of education and worked collaboratively to increase academic discourse within math courses. Each EC-NIC member brought a unique perspective and talent, and once we built relational trust, a symphonic model of practice began to emerge. At the start of our EC-NIC journey, the two math teachers in our group did not work well together; as we focused on building relational trust within our EC-NIC, the two became friends and began coaching each other on how to use and modify different strategies

to meet the needs of their students. During our EC-NIC meetings, professional learning was an exchange of knowledge, and a process of peer coaching took shape. In this PAR, we used the NIC format for the Instructional Leadership Team (IST).

Their success led me to the overarching question that guided the research: *How does an Instructional Support Team design and implement a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers?* During my time as assistant principal, we experienced positive results in utilizing coaching to increase the instructional practices of our teachers. These experiences have caused me to reflect on the FoP as I transitioned to a new school as principal.

To understand the assets already in place and the challenges, I relied on past experiences, conversations with the outgoing administration, and a review of school performance data and various school documents. Next, I expand on the assets and challenges that we identified and their implications to the FoP.

Analysis of Assets and Challenges

I analyze the micro, meso, and macro assets and challenges in collaboratively designing and implementing a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers. For the purpose of the FoP, the micro-level is the school and the teachers engaged in the project. The teachers have a strong connection to coaching; However, we did not yet have the internal capacity to address individual teacher needs outside of their content area. The school had the autonomy to design and facilitate professional development, and that possibility provides opportunities to model inquiry-based instructional strategies. Still, the ability to coach individual teachers was restricted by time and resources.

At the meso level, the district allocated staff to support teachers instructionally by hiring Instructional Coaches and teacher leaders as coordinators for Science, Math, History, and Language Arts. Once again, the ability to address individual needs was constrained due to time allotment. The district had a strong concentration on improving instruction (see Figure 2) and has developed a framework and built an instructional toolkit for teachers to access; however, the in-service professional learning opportunities are not differentiated and are often directed toward the primary school level.

Finally, at the macro level, the State of North Carolina has policies and programs designed to mentor beginning teachers; however, due to the small scope of teachers supported under these programs, veteran teachers and those in specialty areas were left behind with little support. Due to the standardized approach to mentoring young teachers, professional organizations, such as the North Carolina Music Educators Association, are developing their peer coaching initiatives to support teachers in their content areas.

I outline the identified assets and challenges we must acknowledge when working toward the FoP. I reviewed the school documents and data and conversations with the outgoing principal and teacher leaders on the instructional support team; the analysis was based on those.

Micro Assets and Challenges

By reviewing school data and anecdotal records from conversations with the outgoing principal and select members of the instructional support team, I categorized our micro assets and challenges into three areas each. First, I expand on the identified assets and then move into the challenges we must recognize in developing a successful peer coaching process. The assets were identified through conversations and document review; the organizational structure of our

Domains	Concepts	Teacher Actions	Evidences
PLANNING	STANDARDS ALIGNMENT	Teachers use backward design to create learning target(s), lesson plans and assessments aligned to the NC Standard Course of Study and OCS Priority Standards.	- Standards are unpacked and teachers write clearly defined learning target(s). - Formative assessments are aligned to the skill and rigor of the standard(s) and created prior to designing the lesson.
	LESSON DESIGN	Teachers work together to design engaging lessons that use a gradual release instructional model.	- Planning takes place during regularly scheduled data teams/PLCs. - Formal and informal assessment data drive lesson design. - Standards-aligned, culturally relevant, and appropriately challenging instructional materials are used. - Lessons are designed using the gradual release model, which includes a standards-based learning target, activation of learning, modeling, guided practice, independent practice and closure.
	INSTRUCTIONAL STRATEGIES	Teachers incorporate instructional strategies and processes that engage all students in learning.	- Daily lessons require students to read, write, inquire, and collaborate. - Lessons use research-based, high-yield strategies, which are culturally-responsive and differentiated based on student needs.
INSTRUCTION	FOCUSED INSTRUCTION	Teachers deliver lessons which are aligned to the NC Standard Course of Study and the OCS Priority Standards.	- Learning target(s) are posted, clearly communicated, linked to standards, and understood by the students. - The criteria for success are clear to students and the performance tasks provide evidence that students understand and apply learning in context. - Tier II and III vocabulary are used by the teacher and the student. - The lesson links students' prior and future learning to provide relevance and context to the student.
	ENGAGEMENT	Teachers use research-based, high-yield instructional strategies to help students learn.	- Student-to-student and teacher-to-student discourse reflects substantive thinking in relation to the learning target(s). - Opportunities to write, read, inquire, problem solve, and collaborate occur daily. - Research-based, high-yield strategies are used to support student learning. - Technology and innovative tools are used to facilitate and apply learning. - Instructional strategies engage all students and ensure equitable access to learning resources.
	PROGRESS MONITORING	Teachers monitor student learning and adjust instruction to address individual learning needs.	- Checks for understanding are used to measure student progress toward the learning target(s). - Data are used to monitor student progress toward the daily learning target(s). - Students self-monitor their own learning in relation to the learning target(s). - Students are given multiple opportunities to demonstrate learning.
ASSESSMENT	TEACHER REFLECTION	Teachers collaboratively analyze assessment results and adjust instruction accordingly.	- Common formative assessments are developed by teacher teams to inform instruction throughout a unit of study. - Summative assessments are used to measure learning at the end of a unit of study and to generate enrichment and remedial instruction. - Benchmark data are used to analyze learning by standard and to identify individual students' needs for intervention and/or enrichment.
	STUDENT FEEDBACK	Teachers provide timely feedback to students.	- Students receive clear and specific feedback that informs their progression toward the learning target(s). - Student self-monitoring toward the learning target occurs daily.
CULTURE	CLASSROOM ENVIRONMENTS	Teachers create safe and orderly classrooms for student learning.	- Clear routines and procedures are established and taught to maximize student independence. - The physical arrangement of student seating, learning spaces, materials, and resources are conducive to learning and are organized to maximize learning time.
	CLASSROOM COMMUNITIES	Teachers build classroom communities that foster students' social and emotional development.	- Respectful interactions occur between teachers and students. - Staff and students identify and regulate emotions and make responsible decisions. - Opportunities to develop positive peer relationships, responsibility, and independence are promoted. - Interactions, learning communities and environments are inclusive.
	EQUITABLE LEARNING ENVIRONMENTS	Teachers build classroom communities with high academic expectations for all students.	- Student engagement in the learning process is ensured by teachers each day. - Student engagement and achievement of subgroups are intentionally monitored. - Students explore and appreciate their connection to others in a global community.

Figure 2. District instructional framework.

school, having trained teacher leaders, and the ability to design and deliver in-service professional learning based on our instructional needs.

For the past four years, the district prescribed the content and delivery method of the school's in-service learning. However, based on conversations with the outgoing principal and instructional framework lead teacher, Woodland Park Middle School did not participate in the district's in-service professional learning rollout of the instructional framework modules. In one conversation with the outgoing principal, I was told that I "will have to do the instructional framework modules with the staff because we have eighteen teachers that have not gone through them." As a result, the Instructional Support Team (IST) provided in-service professional learning through modeling and coaching, as we are no longer bound by the prescribed delivery methods of the past.

Teacher leaders were an asset to our proposed project and study. For example, the Science, Math, and English departments have Data Team Teacher Leaders (DTTL) who lead weekly meetings to analyze student progress in the priority standards. In addition to our DTTL, one teacher had extensive training in the district's instructional framework and a small group who attended training with Advancement Via Individual Determination (AVID), who provide training to the staff.

However, a set of challenges influenced our ability to move forward: time constraints on teachers, their lack of knowledge outside of their content areas, and overlooking veteran teachers when planning instructional support systems. Veterans are often viewed as master teachers who no longer need coaching in education. Gawande (2011) suggests that "[n]o matter how well-trained people are, few can sustain their best performance on their own. That's where coaching comes in" (p. 45).

Meso Assets and Challenges

At the meso level, the district has built an extensive repertoire of instructional resources, formed partnerships and established programs, and allocated funding in human resources to hire instructional coaches for schools identified as Comprehensive Support and Improvement (CSI) or Targeted Support and Improvement (TSI) schools according to the North Carolina Every Student Succeeds Act. Woodland Park Middle School has been identified as a Targeted Support and Improvement school. Due to this identification, a full-time instructional coach assisted in the planning and leading of professional development, conducting classroom walkthroughs, and working with beginning teachers utilizing student-centered coaching.

The student-centered coaching model is based on the work of Sweeny and Harris (2017) who believe that the teacher must be an invested partner in the coaching process and guide the instructional coach through a collaborative cyclic process aimed at improving instruction. The challenge, once again, was the time constraint placed on our instructional coach and the number of teachers she could effectively reach. However, the foundation set by the instructional coach and the district's adoption of student-centered coaching provides a model for developing peer coaches. By providing in-service professional learning to teachers to lead as peer coaches, we provided "opportunities to refine teaching skills through immediate feedback and through experimentation with alternate strategies as a result of the informal evaluation" (Bowman & McCormick, 2000, p. 256).

In addition to human resource allocations, another asset was the district's repertoire of instructional resources for teachers. In 2017, the district rolled out an instructional framework that detailed the instructional process in four domains. To assist in the rollout of the instructional framework, they trained lead teachers from each school to serve as Instructional Framework

Champions. These teachers facilitated professional development at their schools and assisted the IST in monitoring the implementation. The district provided an instructional framework, a lead teacher, and a plethora of strategies for teachers to access on the district's website. One challenge to successfully meet the FoP was the prescribed format of in-service professional learning that the district used. Teachers were inundated with PowerPoint presentations and pre-recorded videos that required tasks to be completed and electronically submitted. Based on teacher feedback, the prescribed format was ineffective and stressful.

Finally, the organizational structure at the middle school level kept teachers in different content areas from collaborating, mentoring, and effectively observing one another. This divide led to a fear or lack of self-efficacy to peer coach. Teachers needed professional development on holding effective conversations using evidence-based observational tools.

Macro Assets and Challenges

When analyzing the assets and challenges of the FoP and the PAR project at the macro level, I examined state policies, the shifts in instructional delivery, and the resources that were made available due to the COVID-19 pandemic. As I expand on the three areas, I relate them to the FoP and PAR project.

One challenge for teachers face was uncertainty in state policies that shifted due to the COVID-19 pandemic. Throughout the 2020-2021 school year, the teachers taught in a hybrid setting -- half of their students had face-to-face instruction while the other half attended remotely via Microsoft Teams. Due to the Coronavirus pandemic, the instructional delivery method changed at a moment's notice. This uncertainty has brought many challenges, such as the ability to collect accurate student data for Targeted Support and Improvement for Consistently

Underperforming (TSI-CU), to freely visit classrooms for peer observations, and the flexibility to plan collaborative activities.

The challenge with state policies brought new resources to our IST and individual teachers. When the state made the decision to stop face-to-face instruction and transition to virtual, many professional organizations began holding webinars and trainings to assist teachers in the virtual setting. These trainings focused on equitable practices in a virtual setting and guided teachers in using protocols that engaged their students in dialogue and other social and emotional activities. During the Pre-Cycle of the participatory action research (PAR) project, I invited teachers to a CLE to revisit the fishbone (see Figure 3).

Significance

In discussing the significance of the focus of practice in educational leadership, continuing teacher education, and teacher agency, I concentrate on practice, policy, and research for our context. The FoP built on past work in which I used a symphonic approach to establish a peer coaching program so that we can start to move out of the teacher-generated side of the continuum on the Inquiry: Teaching & Learning Project I⁴ framework (see Figure 4) and build the instructional capacity of middle school teachers (Tredway et al., 2019) to move toward the student-generated side of the continuum. The use of peer coaching in the service of inquiry-based teaching and learning can provide a model for other schools and school leaders. Further, the model is significant to policymakers at the district and state level. Finally, this work has the potential to add to the research on peer coaching and inquiry-based teaching and learning. Next, we look at what implications the FoP had in practice.



Figure 3. Analysis of micro, meso, and macro assets and challenges of FoP.

INQUIRY TEACHING AND LEARNING (I:T&L)			
	Teacher-Generated-----	Teacher Initiated and Facilitated-----	Student Generated
Construction of Learning	Individual learning outcomes	Teacher-initiated collaboration for individual and group outcomes	Collaborative construction of knowledge
Model of teaching (MOT)	MOT: mostly Direct instruction (DI); - I do, we do, you do - Static student & teacher roles - Structures controlled by teacher - Curriculum content set by district or guides - Banking method: primary mode of instruction - No attention to community as text	MOT: Teacher-facilitated inquiry structures, including DI, Presentation, Cooperative Learning - Shifting student & teacher roles depending on projects and activities - Structures flexible; student thinking incorporated - Some use of community as text	MOT: Student-driven Inquiry - Evolving student & teacher roles as responsibility for learning by students deepens - Co-constructing & collaborating - Structures that fully elicit student thinking - Local community as curricular text; anchored in problems developed from community context
5 Practices (Math & Science)	Student Knowledge: Limited student knowledge about practices and reasons for use Facilitation: Directed by the teacher Primary Use: Completion of tasks; often graded to ensure compliance Academic Task: Drawn from required curriculum; rudimentary tasks & simplistic student responses	Student Knowledge: Students knowledge of practices and rationale for use Facilitation: Primarily facilitated by teacher Primary Use: Integrated into classroom routines & focused on multiple representations of knowledge & problem-solving Academic Task: More complex tasks; may relate to culture of community	Student Knowledge: Co-facilitated knowledge by teachers & students Facilitation: Integrated in class culture; fully understand importance & co-facilitation by students Primary Use: Focused on multiple representations of knowledge & problem-solving Academic Task: CLRP-informed problems; community dilemmas used as text
Questioning	Level of complexity: Mostly recall, basic ; often fill-in the blank questions or Y/N questions Format: Teacher-to-individual student; if directed at student, may name student first	Level of complexity: Combination of recall & application/analysis; focus on multiple strategies for solving a particular problem Format: Small & large group with teacher instructions & questions	Level of complexity: Students encouraged to ask questions & develop problem-solving processes Format: Small groups work on similar but different problems; locally contextualized examples; students group themselves by interests and kind of problems they choose
Meta-cognitive Meta-affective	Metacognition: Little to no attention Affective domain/ social-emotional learning (SEL): Little to no attention	Metacognition: Structured opportunities but limited opportunity to share Affective domain/social-emotional learning (SEL): Teacher-facilitated	Metacognition: Fully integrated reflection Affective domain/social-emotional learning (SEL): Authentic community-based contexts; opportunities for meaningful cognitive SEL learning
Assessment	Focus: Equitable results framed as achievement gap; focused on right answer & using proper procedures/formulas Checking for understanding (CFU): Limited attention to CFU/formative assessment; Formative Assessment: Limited use Summative assessments: Stand-alone; test format	Focus: Process & conceptual understanding Checking for understanding (CFU): Structured opportunities for practical formative evidence Formative assessment: Multiple metrics used for assessment; teacher-designed &/or from curriculum or test companies Summative: Some use of multiple metrics	Focus: Development of student thinking Checking for understanding (CFU): Formative assessments fully integrated (individual & groups) Formative Assessment: Students analysis of formative evidence to understand learning Summative: Multiple metrics used for assessing student progress

Note. Tredway et al. (2019).

Figure 4. Project I⁴ inquiry teaching and learning framework.

Practice

Freire (2018) stated that banking education is responsible for limiting students' creative power. The banking method only serves the oppressors who do not care to see the world revealed or transformed. Labaree (2008) expresses that the task for social change is often charged to teachers in the American education system who use the banking method of teaching because of their personal experiences in education where it is the most common way of teaching. Most of the workshop trainers or presenters in teacher education and professional development continue to use the banking method (Freire, 2018; Glickman et al., 2014). Finally, we have not been taught or coached to use inquiry as a means of teaching (Aguilar, 2013). We do not pay attention to the basics of strong professional learning (Hawley & Valli, 1999), and I expected this project to shift those processes.

In the PAR project, I sought to change how teachers practice instruction by identifying a small group of teachers build their skills in three areas: engaging in peer coaching inquiry-based instructional practices, conducting evidenced-based observations that support the coaching, having effective post-observation conversations to support teachers shifting their practices. Unfortunately, schools often overlook their most valuable resource when looking for the next program or initiative to address student proficiency (Danielson, 2006). The PAR project changed this practice by acknowledging the local talent within our school. To move away from the banking method of educating students, we needed to acknowledge, as educational leaders, that continuing teacher education and professional development are deeply rooted deeply in traditional ways of teaching and learning. In the PAR project, we used community learning exchange (CLE) pedagogies for engagement and learning as these pedagogies acknowledge that the learner's past experiences, personal interests, and prior knowledge must be understood for

information to be transformed into knowledge (Guajardo et al., 2016). Through the PAR project, we expected to change the practice of professional development from depositing information to a symphonic approach of sharing knowledge and experiences.

Policy

Our intention in our school and district was to use the work and analysis of the FoP to inform the district policy related to the allocation of resources for professional development and continuing teacher education programs and reform the leadership model. In addition, by focusing on the strengths and establishing a symphonic approach, we expected that the study results could influence district policy about mentoring teachers. Our goal was that the mentee and mentor are viewed as highly trained professionals with the knowledge to share and gain from each other. Through the FoP and PAR project, we shifted school policy on instructional practices and focus on the role the principal plays in instructional leadership. Inquiry-based teaching and learning has the possibility of shifting instruction to co-constructive and collaborative processes focused on multiple representations of knowledge and problem-solving skills. Freire (2018) describes how students respond to the co-constructive model of teaching:

Students, as they are increasingly posed with problems relating to themselves in the world and with the world, will feel increasingly challenged and obliged to respond to that challenge. Because they apprehend the challenge as interrelated to other problems within a total context, not as a theoretical question, the resulting comprehension tends to be increasingly critical and thus constantly less alienated. Their response to the challenge evokes new challenges, followed by new understandings; and gradually the students come to regard themselves as committed. (p. 81)

Darling-Hammond (2008) explains the need for inquiry-based instructional practices from an economic perspective, stating that in the early part of the 20th century, 95% of jobs in the US were low-skill manual labor and that these jobs now make up only 10% of the U.S. economy. Most of today's jobs need inquiry-based competencies as there is a "greater dependence on knowledge, information and high skill levels, and the increasing need for ready access to all these by the business and public sectors" (Organization of Economic Cooperation and Development [OECD], 2007, p. 15).

The PAR project and study provided an example for policy change in teacher in-service professional learning, lesson design, and how the educational system prepares students to become successful citizens in a changing economic world.

Research

We adopted an inquiry-driven process from the performing arts processes to design and implement a peer coaching program to improve and support inquiry-based instructional practices of middle school teachers. Since the project design poses a challenge of dismantling the long-standing practice of teachers working alone in the school setting, we worked collaboratively – using every voice to perform a symphony successfully (Atwood, 2017; Hader & Brody, 2010). An orchestra acknowledges that every individual brings their interpretation, skills, and stories to the performance; thus, that may require individuals to take the supporting role to project the melody (Talgam, 2015). The framing of the symphonic approach to classroom teaching and learning adds to the research base on collaboration and classroom practices and how we construct professional learning communities of practice.

In designing a PAR project to recognize how individual and collective expertise in inquiry-based instruction, we developed leadership capacity as peer coaches as a driving factor

for addressing the FoP. Adopting the CLE pedagogies for professional development helped teachers build their understanding of inquiry-based teaching and learning through equitable conversation and meaning-making (Guajardo et al., 2016). The research that might ensue as part of the PAR should provide teachers with the necessary and appropriate resources, strategies, and coaching on how to improve their instructional capacity in inquiry-based instructional practices and then coach their peers.

Connection to Equity

To better understand the equity focus of designing and implementing a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers, I analyzed the PAR from two theoretical frames – socio-cultural and philosophical (see Figure 5).

Social-Cultural

The American education system reflects white European norms and a cultural archetype of individualism. A cultural archetype relates to a group's orientation toward either collectivism or individualism, and that cultural archetype fundamentally affects how the brain organizes itself (Hammond, 2015). This individualistic approach to education has embedded a caste-like system that uses rigid, often arbitrary boundaries to keep the ranked groupings apart, distinct from one another and in their assigned places (Wilkerson, 2020).

In education, teachers are ranked by years of service, content area, and, in the context of the FoP, where you are from. Students are not immune to the caste system of middle school; they are ranked by athleticism, grade point averages, advanced placement courses, and a gamut of programs and academies. As a result of the educational caste system, teachers marginalize students of color and those from low socio-economic families due to a perception that they are at

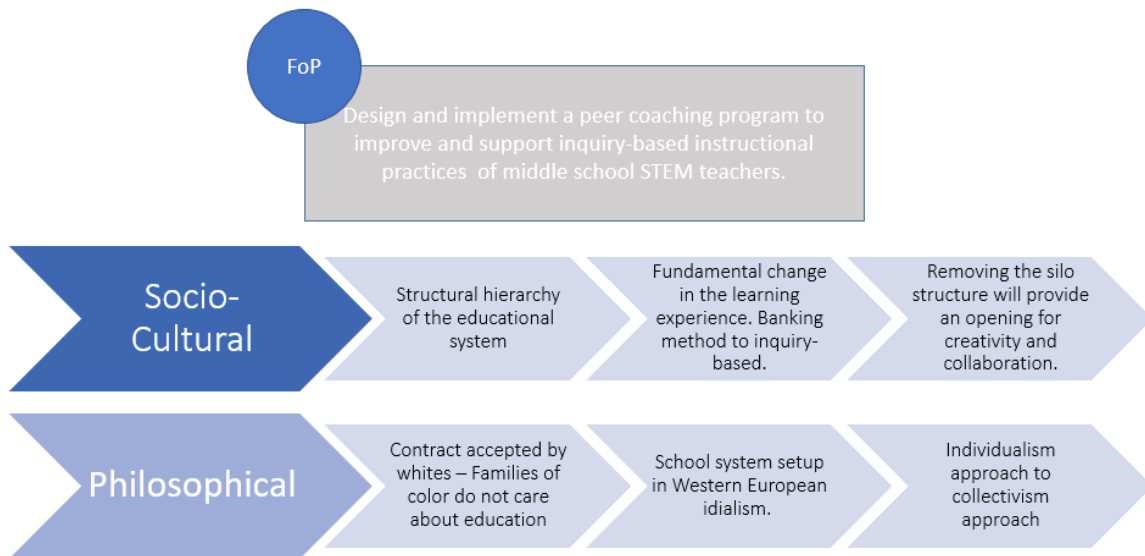


Figure 5. Frames for focus of practice.

a deficit; they often lower expectations and resort to what has been termed the pedagogy of poverty (Haberman, 2010; McKenzie & Scheurich, 2004).

In addition, schools and teaching use the banking method of education as a primary instructional mode, negating what we know about the values of constructivist teaching (Driscoll, 1994; Vygotsky, 1978). In the banking method, knowledge is a gift the teacher gives to students who are considered to know nothing (Freire, 2018). In the FoP and PAR project, we explicitly focused on disrupting banking education in our school context by improving and supporting inquiry-based instructional practices in middle school classrooms. The philosophical equity frame supports our understanding of the roots of inequities.

Philosophical

Individualism and, more specifically, American individualism tends to reduce social problems to individual problems, locating the root cause of everything from poverty and illness to criminality and racism in the capacities and motives of individuals (Labaree, 2008). This action of individualizing social problems into individual behaviors, like academic achievement, has led to a common belief system among teachers that contribute to the low achievement of minority students to having a lack of motivation, low family values on education, and an inability to complete rigorous coursework (McKenzie & Scheurich, 2004). Further, this belief system is rooted historically in a racial philosophy that seeks to identify whites as more capable, civilized, and intellectual than people of color (Mills, 1997).

Of course, the philosophical foundations overlap with the socio-cultural. A primary goal is ensuring more equitable student participation to ensure learning. That said, the philosophical elements that connect to equity are help us speak to the root causes of the learning issues we see each day in schools. Thus, we are engaging in the PAR to address root causes of inequity.

Participatory Action Research Design

I selected participatory action research (PAR) for the study to increase the instructional capacity of teachers in inquiry-based instructional practices by developing and implementing a peer coaching process. Creswell (2005) further describes action research as to when “educators aim to improve the practice of education by studying issues they face” (p. 550). During the project and study, educators reflected on the iterative data I collected and analyzed; collaboratively we implemented changes based on their analysis throughout the project and study. To achieve transformational change in the instructional practices at Woodland Park Middle School, those involved must hold a fundamental role in the process (Freire, 2018).

To ensure teachers held a fundamental role in the PAR, I relied on the theory and processes of improvement science throughout the cycles of inquiry. Improvement science brings educators into the research as active participants and into an improvement network to form a collegueship of expertise to address a specific problem (Bryk et al., 2015). In addition, teachers participated in Community Learning Exchange protocols (CLE) to provide their perceptions and experiences and build relational trust as well as employ interactive data collection tools that yield strong qualitative evidence for the project.

Vygotsky’s socio-cultural theory suggests that we experience an event twice, first socially and then cognitively (Guajardo et al., 2016). If the PAR is to change how we approach in-service professional learning through peer coaching, then those closest to the issue of in-service professional learning, the teachers, should have a fundamental role in the design and implementation of that program. The mentoring nature of peer coaching, in which teachers relate, assess, and facilitate learning in a social process, requires that we co-construct meaning to

new learning and improve instructional practices (Bowman & McCormick, 2000; Portner, 2003; Showers & Joyce, 1996).

Purpose Statement and Research Questions

The purpose of the participatory action research project and study was to develop a peer coaching model that would improve and support inquiry-based instructional practices of teachers. As a result of co-creating a structured yet flexible peer coaching program, a small group of teachers participated in a co-practitioner researcher (CPR) team using the Community Learning Exchange (CLE) pedagogies to develop the peer coach model and guide the research. In addition to the teachers, the Instructional Support Team were members of the CPR team; however, I refer to them as the IST for the PAR as that is a known group in the school. As the lead researcher, I worked with the IST on a common topic and engage those closest to the issue. By working with our teachers and coaches, engaging in conversations, and sharing information, we created the social element of learning (Herr & Andersson, 2014). By using the CLE pedagogies (Guajardo et al., 2016), the participants had the opportunity to have reflective conversations on what inquiry-based teaching and learning looks like in middle school and how their unique strengths contributed to their coaching their peers.

The overarching research question: *How does an Instructional Support Team (IST) design and implement a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers?*

1. To what extent does an IST collaboratively design a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?
2. To what extent does an IST implement a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?

3. To what extent does the involvement in creating and refining a peer coaching program improve the IST team's knowledge, skills, and dispositions in inquiry-based instructional practices?
4. How does involvement in creating and refining a peer coaching program improve the principal's knowledge, skills, and dispositions as an instructional leader?

These research questions guided the participatory action research.

Theory of Action

In the PAR, we used this theory of action: *If the Instructional Support Team collaboratively designs a peer coaching process that supports and improves inquiry-based instructional practices then teachers will have the support to develop the skills, knowledge, and disposition to implement inquiry-based instruction at Woodland Park Middle School.* In the process, we designed and implemented a peer coaching program to support and improve the instructional capacity in inquiry-based teaching and learning of middle school teachers. The context for the PAR was derived from these data points:

- Performance data,
- Survey data from students, parents, and staff, and
- Interviews with the retiring principal and instructional support team (IST).

Proposed Activities

We designed the activities selected for each PAR cycle to encourage praxis – reflection of the IST and teachers in order to decide on future actions. I provide details in Chapter 3 on the specific activities selected for this PAR. In Table 1, I describe the three cycles of inquiry for the PAR and the proposed activities to collect data. In each inquiry cycle, I hosted a community learning exchange for the IST to discuss their experiences with inquiry-based teaching and

Table 1

Research Cycle Timetable and Related Activities

Research Cycle	Time Period	Activities
PAR Pre-Cycle and Context	Spring 2022	• CLE Protocols • Field and Meeting Notes • Interviews • Classroom Observations • Reflective Memos
PAR Cycle One	Fall 2022	• CLE Protocols • Field and Meeting Notes • Interviews • Classroom Observations • Coaching Conversations • Member checks • Reflective Memos
PAR Cycle Two	Spring 2023	• CLE Protocols • Field and Meeting Notes • Interviews • Coaching Conversations • Classroom Observations • Member Checks • Reflective Memos

learning and peer coaching. By using CLE processes, I intended to provide a foundation and a methodology for the PAR because the artifacts provided evidence for qualitative analysis and guided our inquiry cycles (Guajardo et al., 2016). I triangulated the data during the IST meeting using CLE protocols by utilizing interviews with IST members, classroom observational data, and analysis of reflective memos.

Study Considerations: Limitations, Validity, and Confidentiality and Ethics

The security of the data collected and the confidentiality of the participants was and is of utmost importance in the study. Therefore, I used pseudonyms for the district, the school, and study participants. In addition, I ensured secure storage of the transcription of interviews and tapes, field notes, and documents collected by keeping them in a locked location for a total of three years. Finally, none of the material collected from district personnel was replicated or disseminated in any way.

To ensure validity and trustworthiness of the data for the PAR project, I checked for the accuracy of the findings by (1) using member checks; (2) engaging in multiple observations; (3) asking colleagues to comment on findings as they emerge; and (4) triangulating the data collected (Creswell & Creswell, 2018).

For the researcher to conduct this study, I made a formal application for approval by the district's office and East Carolina University's Internal Review Board (IRB). Participants signed consent forms with the understanding that participation is voluntary and that they may withdraw without penalty.

Summary

Reflecting on my experiences in the performing arts and as a student engaged in the learning experience as a collaborative partner in high school band, I find my passion for

engaging in the PAR project and study. By embracing the inquiry-driven and collaborative structure found in the performing arts, a co-practitioner researcher (CPR) group, which we call the instructional leadership team (IST), designed and implemented a peer coaching program that provided middle school students equitable opportunities to be active participants in their learning, not just empty vessels being filled by their teacher's knowledge (Freire, 2018). In the PAR project, I engaged teachers so that they have a central role in reimagining and implementing more effective in-service professional learning.

In the subsequent chapters, I discuss the PAR process in greater detail. In Chapter 2, I provide a compressive review of research pertaining to the FoP, including inquiry-based teaching, and learning in the field of math and science, in-service professional learning, and academic discourse. In Chapter 3, I outline the research design and the data collection and analysis processes. In Chapter 4, I detail the context of this action research and the first attempts at action research and setting up the collaborative group. In Chapter 5, I discuss the emerging themes and findings of two cycles of inquiry. Finally, in Chapter 6, I discuss the PAR findings, the implications for research, policy, and practice, and respond in more detail to the research.

CHAPTER 2: LITERATURE REVIEW

The purpose of the focus of practice (FoP) was to design and implement a peer-coaching program to support and improve the instructional capacity in inquiry-based teaching and learning of middle school teachers. To co-construct a peer-coaching program, we needed to fully understand the research about teacher leadership. When teacher leaders motivate their colleagues to become more skilled and thoughtful in their practice by building on what they already do, not by having them do things differently that, many times, improvement occurred (Danielson, 2006, p. 12). In the subsequent sections, I review the literature pertinent to the FoP: teacher leadership, professional learning, and inquiry-based teaching and learning.

Teacher Leadership

Teacher leadership has been viewed as a driving force to bring about organizational change; yet the role is and is often used as a formal position to assist the principal in the form of managerial delegation (Beauchum & Dentith, 2004; Crowther, 1997; Danielson, 2006; York-Barr & Duke, 2004). The conceptualization of teacher leaders having central roles in educational leadership and organizational change is a topic that has been studied although as a topic of equity leaders needs more attention (Grubb & Tredway, 2010; Wenner & Campbell, 2016). Danielson (2006) contributes this to the conception of leadership found in the business world, in which a strong individual works to complete difficult tasks. Danielson argues that teacher leadership should not follow this conceptualization; she believes that teacher leaders develop through a collaborative relationship with their peers in which they inspire others to join without a specific destination. Teacher leadership is evolving, shifting to a strong focus on tasks that directly affect student learning (Danielson, 2006; Pounder, 2006). See Figure 6 for three levels of leadership: managerial, strategic, and transformational (Beauchum & Dentith, 2004; Danielson, 2006).

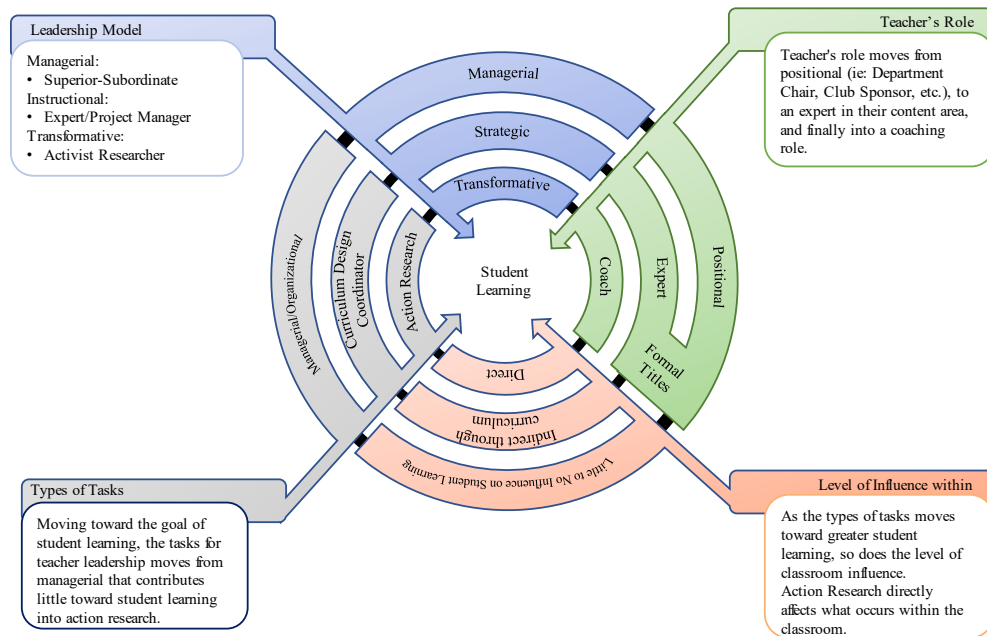


Figure 6. Levels of teacher leadership and the impact on student learning.

In the first level of teacher leadership, the focus has been on the teacher's capacity to take on high levels of responsibility in managerial work to assist the principal in running the day-to-day operations of the organization (Crowther, 1997; Danielson, 2006). Teachers placed in this role of influence are often seen as quasi-administrators (Danielson, 2006), and do not have the trust of their colleagues (Crowther, 1997). Danielson warns that "even when teachers in formal roles play no part in the evaluation process, some teachers regard those who are "appointed and anointed" to such positions as breaking ranks with the solidarity of teachers, as no longer being true colleagues" (p. 19). Pounder (2006) stated that teachers in these roles were archetypical teacher leaders whose job was to manage teachers and that they were perceived as implementers of the principal's decisions.

In the 1980s, teacher leadership began taking an emphasis on curriculum development and coordinating programs aimed at improving aspects of the organization (Crowther, 1997; Danielson, 2006). This level of teacher leadership viewed the teacher as the expert and pulled them out of the classroom, limiting their influence on student learning (Danielson, 2006; Pounder, 2006). Although, teachers serving in this capacity are moved out of the traditional organizational hierarchy, they still have control through curriculum developers and authority by creating prepackaged material for classroom teachers to implement (Pounder, 2006). Darling-Hammond (1998) and Shulman (1987) have described this process as remote controlling teachers.

The emerging level of teacher leadership describes teacher leaders that influence their colleagues without formal titles or positions but by their qualities, characteristics, and approaches that are implicative to transformational leadership (Crowther, 1997; Pounder, 2006). Crowther (1997) states that transformational leadership emphasizes the significance or "the person", and

personal traits, in bringing about social and cultural change (p. 10). Avolio and Bass (1988) believe that transformational leaders are those who “motivates followers to work for transcendental goals instead of immediate self-interest and for achievement and self-actualization instead of safety and security” (p. 45). Danielson (2006) describes teacher leadership as something “spontaneously exercised” by any teacher in response to a need or an opportunity through work with their colleagues. She suggests that this form of teacher leadership forms “organically” with no appointments to formal titles or positions. Pounder (2006) states that:

It is a process rather than a positional concept and recognizes that teachers, in the process of carrying out their duties, should be given the opportunity to express their leadership capabilities. This conceptualization of teacher leadership is grounded on professionalism and collegiality and is a label reserved for those teachers who improve a school’s educational climate by engaging colleagues in various activities designed to enhance the educational process. (p. 534)

In this wave of teacher leadership, the duties of teacher leaders have a stronger focus on teaching and learning and less on organizational management (Angelle & DeHart, 2011; Crowther, 1997; Danielson, 2006). Pounder (2006) states that this conception of teacher leadership as a process instead of a positional concept could explain the lack of empirical data as it is more difficult to articulate because it focuses on various behaviors and characteristics instead of formal titles and positions. Avolio and Bass (1988) name three characteristics of a transformational leader:

- Charisma – The leader instils pride, faith, and respect, has a gift for seeing what is important, and has a sense of vision which is effectively articulated.

- Individual consideration – The leader delegates projects to stimulate and create learning experience, pays attention to followers’ needs, especially those followers who seem neglected, and treats each follower with respect as an individual.
- Intellectual stimulation – The leader provides ideas that result in rethinking of old ways, that is, the leader enables followers to look at problems from many angles and to resolve problems that were at a standstill. (p. 137)

Teacher leaders who work to produce social and organizational change that directly influences student learning must have gained respect from their peers (Crowther, 1997; Danielson, 2006; York-Barr & Duke, 2004). York-Barr and Duke (2004) suggest that the respect given to teacher leaders by their peers is fundamentally rooted on their reputations and success within their classrooms. Danielson (2006) echoes this by stating “it is important that teachers who aspire to leadership roles within their school have demonstrated excellence in teaching and been recognized as skilled by their colleagues” (p. 25). Teacher leaders also need to be willing and open to new ways of teaching and the relationships with their peers to model, coach, collaborate, and advocate for change in educational practices (Danielson, 2006; Fairman & Mackenzie, 2014; Pounder, 2006; York-Barr & Duke, 2004).

Teacher leadership has a direct impact on teacher agency (Angelle & DeHart, 2011; Charteris & Smardon, 2014). York-Barr and Duke (2004) define teacher agency as the school-wide work of teachers that is supported through building relationships, breaking down barriers, and marshalling resources throughout the organization to improve students’ educational outcomes. According to Charteris and Smardon (2014), “teacher agency is a significant factor in building peer coaching relationships that have a lasting impact on student outcomes” (p. 114). Next, I examine the research about peer-coaching and how peer coaches, as teacher leaders, can

build the internal capacity of teachers and establish a culture of inquiry around instructional practices.

Peer Coaching

When professionals share their talents and skills, they help the whole school develop a collective wisdom about learning and teaching. Hord and Sommers (2008)

Glickman (2002) defines peer-coaching as a “structure in which teachers, as each other’s colleagues, conduct cycles of clinical supervision with each other with the overall coordination of a facilitator” (p. 14). Portner (2003) ties coaching into the role of mentoring stating that “coaching is the mentoring function where your relating, assessing, and facilitating behaviors are applied directly to improving your mentee’s performance” (p. 41). Portner (2003) believes that a teacher leader in the role of a mentor has the main focus of developing their mentee into a “self-reliant teacher,” meaning they can do the following tasks independently.

- generate and choose purposefully from among viable alternatives,
- act upon those choices,
- monitor and reflect upon the consequences of applying those choices, and
- modify and adjust in order to enhance student learning. (p. 41)

Pearce et al. (2019) suggest that in education, the terms mentoring and coaching are used interchangeably when involving an experienced teacher working with a beginner teacher.

However, in professions outside of teaching, mentoring emphasizes long-term preparation for a future job, while coaching focuses on performance tasks. Robbins (1991) defines peer coaching as “a confidential process through which two or more professional colleagues work together to reflect on current practices; expand, refine, and build new skills; share ideas; teach one another; conduct classroom research; or solve problems in the workplace” (p. 1). Joyce and Showers

(2002) believe that the major purpose of peer coaching is for the implementation of innovations that directly contribute to student outcomes.

In Mayo's (2002) review of literature, two themes support redesigning the role of teacher leader and how to define teachers as leaders. First, school change and improvement cannot successfully occur without teacher leaders. Secondly, teacher leadership is essential for raising the level of professionalism with the teaching profession itself. Charteris and Smardon (2014) theorize that peer coaching as leadership strengthens teacher agency and supports their growth in pedagogical development in school communities.

Peer-coaching should not be used as an evaluation tool or as a strategy for principals to 'fix' teachers (Charteris & Smardon, 2014; Danielson, 2006; Showers & Joyce, 1996). Pearce et al. (2019) emphasize the importance of a strong partnership built on equity, respect, and trust when developing a coaching partnership and that a supervisory relationship would hinder teachers from feeling comfortable in engaging in inquiry-based discussions around pedagogical practices. Charteris and Smardon (2014) propose that "peer-coaching should not be a 'how to' session where the coach provides suggestions, instead they posit that the coach take an active listener role and serve as a catalyst for their peers to investigate their thinking as they struggle to make sense of their teaching practice" (p. 112).

Peer-coaching was introduced as an on-site strategy for staff development to increase the rate of transfer from professional learning to classroom practice (Joyce & Showers, 1980). During their early research, they discovered that as few as ten percent of the participants in professional learning made a transfer into their classroom practice and concluded that "well-researched curriculum and teaching models did not find their way into general practice and thus could not influence students' learning environments" (Showers & Joyce, 1996, p. 12). The

authors developed a series of studies that have evolved over the past two decades on how peer-coaching can dramatically increase the rate of transfer from professional learning to classroom practice. Their research recommends “that teachers who are studying teaching and curriculum form small peer coaching groups that would share the learning process” (Showers & Joyce, 1996, p. 12) so that their professional learning directly affects student learning.

However, peer coaching is not a guarantee for success in terms of student achievement gains; in one study found in Murray et al.’s (2009) work, peer coaching found no positive effects on student achievement. In this study, researchers pointed out that there was no structure or instructions on how to coach and that their conversations were superficial, nonconfrontational, and did not provide guidance (Murray et al., 2009). The lack of a framework and teachers not fully understanding their roles or the purpose of peer coaching prevents those involved from building the relational trust needed to have inquiry-based conversations (Chartis & Smardon, 2014; Danielson, 2006; Showers & Joyce, 1996). Pearce et al. (2019) discuss the importance of building trust and warn without it “the member being monitored may feel a lack of trust in the person monitoring them, or the act of being monitored may lead to a lack of trust or confidence in their own abilities” (p. 119). Showers and Joyce (1996) stated that:

Peer coaches told us they found themselves slipping into “supervisory, evaluative comments” despite their intentions to avoid them. Teachers shared with us that they expect “first the good news, then the bad” because of their past experiences with clinical supervision, and admitted they often pressured their coaches to go beyond technical feedback and give the “the real scoop.” (p. 15)

Successful peer coaching program must work to dismantle the traditional hierarchy in educational leadership and embrace the emerging, or as shown in district instructional

framework, the third wave of teacher leadership that utilizes the social dynamics of teachers working in collaborative teams in inquiry-based cycles to increase their internal capacity in instructional practices (Charteris & Smardon, 2014; Danielson, 2006; Joyce & Showers, 2002; Mayo, 2002; Pearce et al., 2019).

Danielson (2006) calls the conflict with managerial culture “contested ground,” and that the traditional norms of teacher autonomy and individualism works against the development of the peer coaching groups that are recommended by research for teacher to engage in collaborative inquiry (Danielson, 2006; Joyce & Showers, 2002; Pearce et al., 2019). Jewett and MacPhee (2012a) share that teachers need to first add collaborative peer coaching in their identities as teachers, meaning they must gain knowledge about and collaboratively participate in exchanges with their peers (p.105).

Summary

York-Barr and Duke (2004) reviewed 140 studies about teacher leadership and concluded stating the need for further research on how teacher leadership is developed and the how teacher leadership effects students and learning. Peer coaching is a viable strategy to increase teacher agency and to dismantle the traditional isolation of classroom teachers and leadership hierarchy (Charteris & Smardon, 2014; Danielson, 2006; Joyce & Showers, 2002). However, for teachers to build peer coaching into their identities, effective in-service professional development must be planned, presented, and transferred into practice (Danielson, 2006; Joyce & Showers, 2002).

Next, I discuss in-service professional development and teacher development.

In-Service Professional Development and Teacher Development

Showers and Joyce (1996) developed a series of studies that have evolved over the past two decades on how peer coaching can dramatically increase the rate of transfer from

professional learning to classroom practice. Their research recommends “that teachers who are studying teaching and curriculum form small peer coaching groups that would share the learning process” (p. 12) so that their professional learning directly affects student learning.

The small groupings that they developed to increase the transfer to practice after in-service professional learning suggests the importance of social and co-constructed learning for teachers when learning new concepts (Danielson, 2006; Terehoff, 2002). To construct effective professional learning, I discuss adult learning theory and its importance for professional learning, the role the school principal in teacher development, and network improvement communities (NIC) as supports for teacher development and the transfer to practice of in-service professional development.

Adult Learning Theory

Lindeman (1926) proposed that adults learn best when they are problem solving and gaining knowledge that is useful in their own context and self-fulfillment. Alexander Kapp is credited with the term andragogy (van Enckevort, 1971) when he described the educational approach of ancient philosophers, such as Plato. Ozuah (2005) further describes those ancient philosophers were teachers of adults and used mental inquiry that required active participation of the learner and not as a passive recipient of information. The author continued to point out that these teachers of adults understood that adult learners had a need and the capacity to learn at a self-directed pace organized around problems that are no longer separated by subjects.

Glaser (2002) points out that principals who are tasked with organizing teacher professional development often get lost in creating subjects or organizing professional development into manageable units throughout the year. When teacher professional development is based on what needs to be covered, when it will be covered, and how it can be broken down

into units; we are missing critical elements of adult learning that would keep teachers engaged and interested in the learning process (Glaser, 2002; Terehoff, 2002). Next, I explore Knowles (1984) five assumptions concerning adult learners in relation to teacher professional development.

Adults' Self-Concept

Principals need to understand that adults, and for this context, teachers, do not want to be treated like children and when a pedagogical approach is taken during teacher professional development it may be viewed as patronizing and unimportant (Terehoff, 2002). Knowles (1980) states that, “something dramatic happens to their self-concepts when people define themselves as adults. They begin to see their normal role in life no longer as being full-time learners. They see themselves increasingly as producers or doers” (p. 45). Danielson (2006) addresses how this concept of adult learners as producers and doers have created the traditional norms of autonomy and individuality and how these norms often prevent teachers from working in a co-constructive and social learning environment. For teacher professional development to become effective, teachers would need to have a sense of personal freedom to learn, a choice in what to learn, and relevant experiences during the learning (Terehoff, 2002).

Adult Learner Experience

Many professional development sessions for teachers bring in an expert to present information treating adults merely as empty vessels and disregarding their plethora of experiences, unique needs, and vast knowledge within their content (Freire, 2018; Knowles, 1984; Terehoff, 2002). Knowles (1980) warned that if we do not use or acknowledge the experience of our teachers or devalue its worth, then it can be perceived that we are rejecting them as persons. Many researchers in the andragogical literature recommend that teachers of

adult learners link new learning to the prior experiences of the adult learner and adjust the material to address their immediate concerns and problems to ensure the learning is relevant (Knowles, 1980; Terehoff, 2002). To show value in adult learners' experiences and prior knowledge, practitioners should engage learners through social processes, such as; simulations, problem solving activities, case studies, experiments, and group discussions (Guajardo et al., 2016; Knowles, 1989; Ozuah, 2005; Terehoff, 2002).

Readiness to Learn

Pedagogically, children's learning is dependent upon an adult's structured activity, lesson, or guidance which is why schools are structured by subjects guided by curriculum maps, regardless of individual developmental needs (Knowles, 1980; Terehoff, 2002). In contrast, Ingalls (1984) stated regarding adult learners that, "it is well known that educational development occurs best through a sequencing of learning activities into developmental tasks so that the learner is presented with opportunities for learning certain topics or activities when he/she is 'ready' to assimilate them, but not before" (p. 7).

Readiness to learn for adult learners is an important concept for principals to understand when developing in-service professional development for teachers (Terehoff, 2002). Drago-Severson (2000) found that having the principal serve as a facilitator and co-inquirer helped teachers become more aware of their thinking and of their colleagues. Terehoff (2002) provides two models that principals can use during in-service professional learning: heterogeneous or homogeneous groupings. Homogeneous groupings would allow teachers to share their common needs and interests, while heterogeneous groupings would allow teachers to provide their input and expertise (Knowles, 1980). Knowles (1980) suggests that using a variety of groupings during

in-service professional learning provides teachers flexibility of choice and the ability to find colleagues with similar developmental needs.

Orientation to Learning

Teacher in-service professional learning should be performance-centered or problem-centered as, unlike children, adults spend time learning when the information is meaningful to the work that they do (Terehoff, 2002). Knowles (1980) explains the difference between a child's orientation to learning and an adult's as a matter of perspective and time of use.

Adults enter into education with a different time perspective from children which in turn produces a difference in the way they view learning. To a child, education is essentially a process of the accumulation of a reservoir of subject matter – knowledge and skills – that might be useful later in life. To adults, education is a process of improving their ability to cope with life problems they face now. (p. 53)

Principals need to understand what their teachers need when planning in-service professional learning (Coyle, 1997), and they need to ensure that the professional learning is connected to the teachers' needs and is thoughtful and persistent enough for teachers to change their practices (Rosa & Toncelli, 2022). When the principal understands the teacher's orientation to learning in relation to their performance or issues then they can create in-service professional learning that is meaningful and create a learning experience that addresses and resolves their problem areas (Terehoff, 2002).

Role of the Principal

The responsibility of planning professional development of teachers to ensure the academic success of the students falls on the principal (Coyle, 1997; Terehoff, 2002). Understanding how adults approach learning can guide in planning in-service professional

learning and keep content grounded in the immediate needs of the teachers. Glaser (2002) states that when a principal approaches in-service professional learning utilizing andragogy that they will communicate their attitude of respect for the teachers through their behavior and management of the learning process.

The goal of andragogy is for teachers not to remain dependent on their principal to determine their needs and performance goals, nor is it for principals to pass the responsibility of in-service professional learning onto the teachers (i.e., what is to be learned, how it will be learned) (Terehoff, 2002). Instead, the goal is to create opportunities for teachers to learn by providing resources that provide a foundation that is sufficient for teachers to build self-efficacy in taking on responsibility for planning and carrying out learning projects (Knowles, 1989). Terehoff (2002) summarized key points of Knowles' (1989) research regarding in-service professional learning when done through the lens of andragogy.

- The learning activities are based on the real needs and interests of teachers
- The planning and design of the in-service professional learning are co-constructed by a group that represents all teachers involved.
- Teachers are involved in formulation their own goals and objectives.
- The teachers are involved in the implementation and evaluation.
- Teachers share all responsibility for making and carrying out decisions.

The research on network improvement communities in relation to teacher development and in-service professional learning provides a process for fully engaging teachers.

Network Improvement Communities

Professional learning communities have been widely adapted in the educational field as a means to drive student achievement by assessing student achievement data (Dufour & Eaker,

1998; Kanold, 2011). Russell et al. (2017) offer a slightly different approach with network improvement communities (NICs) as these processes are embedded in the principles of improvement science. “Improvement science analyzes on the specific tasks people do; the processes and tools they use; and how prevailing policies, organizational structures, and norms affect this” (Russell et al., 2017, pp. 7-8). NICs recognize that teachers bring their expertise which is valuable in solving a problem that cannot be solved by an individuals isolated action, this relies on the core belief that we can accomplish more collaboratively than alone (Russell et al., 2017). Jewett and MacPhee (2012b) posit that members of such communities [communities of practice] are willing to wonder, to ask questions, and to try to understand issues related to their work lives. They share methods and through these kinds of interactions, they learn how to do their work better (Jewett & MacPhee, 2012b, p. 106).

Summary

Teaching has a tradition of autonomy in which educators practice in isolation. Russell et al. (2017) believe that professional learning for teachers must disrupt the notion of autonomy and focus collaborative learning experiences.

At the most fundamental level, NIC participation challenges the long-standing norm of autonomy in practice that educators have traditionally prized. It means recognizing that today's problems cannot be solved through isolated individual actions. Each participant holds expertise that is valuable in solving a given problem, but each also recognizes that he or she must join together with others to solve. Consequently, the life of a NIC entails a profound normative shift. It vitalizes a core belief that we can accomplish more together than even the best of us can accomplish alone. (Russell et al., 2017, p. 17)

The importance to move education to a norm of social and co-constructed learning when approaching teacher development and in-service professional learning is vital in order to increase inquiry-based instructional practice (Russell et al., 2017; Danielson, 2006; Darling-Hammond & McLaughlin, 2011; Joyce & Showers, 2002). In the final section, I present research on inquiry-based instructional practices and how they can serve as a pathway to equity in the classroom (Tang et al., 2017).

Partnership of Inquiry-Based Instructional Practices and Equity

The American education system was established on the basis of white European norms and a cultural archetype of individualism. A cultural archetype relates to a group's orientation toward either collectivism or individualism and that cultural archetype fundamentally affects how the brain organizes itself (Hammond, 2015). This individualistic approach to education has embedded a caste-like system that uses rigid, often arbitrary boundaries to keep the ranked groupings apart, distinct from one another, and in their assigned places (Wilkerson, 2020). The educational system has marginalized students of color and those from low socio-economic families due to a perception that they are at a deficit and need lower expectations to succeed (McKenzie & Scheurich, 2004).

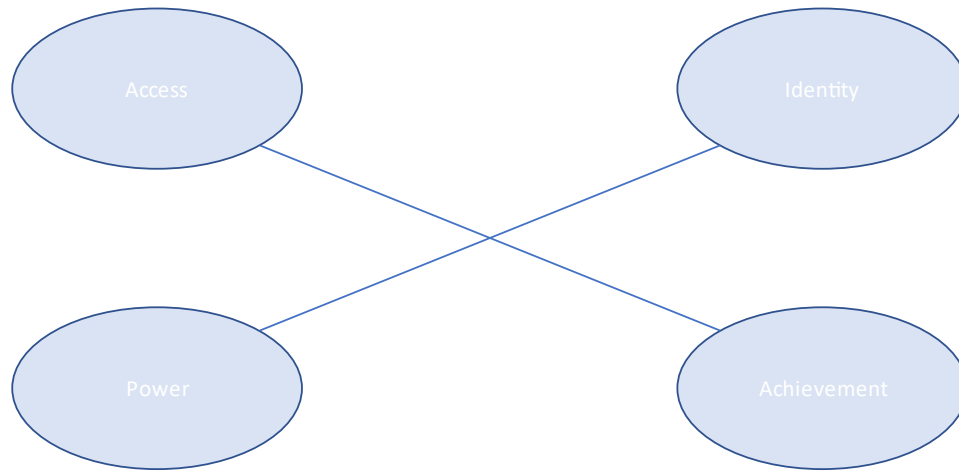
Individualism and more specifically, American individualism tends to reduce social problems to individual problems, locating the root cause of everything from poverty and illness to criminality and racism in the capacities and motives of individuals (Labaree, 2008). This action of individualizing social problems into individual behaviors, like academic achievement, has led to a common dialogue among teachers that contribute to the low achievement of minority students to having a lack of motivation, low family values on education, and an inability to complete rigorous coursework (McKenzie & Scheurich, 2004). This belief has led to historically

underserved students being placed in low-level classes that limit their accessibility to higher level courses in STEM and more specifically, mathematics (Gutiérrez, 2013). She explains that teaching is a political act and that when we eliminate the low-level courses, we are removing the unearned privilege mathematics holds on our society and the barriers that are holding our historically underserved students back.

Tang et al. (2017) conducted interviews in an undergraduate introduction-to-proofs course at a private Hispanic-Serving Institution, they noted that many of the responses to their interview questions related to issues of equity in the classroom which led to further investigation into the connection between inquiry and equity. Tang et al.'s (2017) work led them to build a theoretical framework to align inquiry pedagogies to equity teaching. This framework aligns Cook et al.'s (2016) six themes of inquiry (student ownership, knowledge building, students participating or doing, student-staff relationships, peer involvement, and student success) to Gutiérrez's (2008) four dimensions of equity (access, achievement, power and identity). Next, I define Gutiérrez's four dimensions of equity and Cook et al.'s six themes of inquiry and how they align with one another.

Four Dimensions of Equity

Gutiérrez (2008) uses four key dimensions to explain issues of equity when working with teachers (see Figure 7). Gutiérrez (2008) describes the dimensions of access and achievement as being on the dominant axis in which students have a classroom environment that invites participation of all students and "how well students play the game called mathematics" (p. 5). Tang et al. (2017) describes the dimension of achievement as the student's ability to perform on exams as well as whether students continue taking mathematics courses or choose a mathematical career.



Note. (Gutiérrez, 2008).

Figure 7. Dimensions of equity: Access, identity, power, and achievement.

The dimensions of power and identity make up the critical axis “where identity can be seen as a precursor to power, ensures that students’ frames of reference are resources are acknowledged in ways that help build critical citizens so that they may change the game” (Gutiérrez, 2008, p. 6). When students engage in inquiry-based instruction and actively engage with each other, they can shift in their academic identities (Gutiérrez, 2008; Tang et al., 2017). Gutiérrez (2008) states that all four dimensions are needed to have authentic equity; the diagram is not meant to simplify the complexity of equity but to provide a “mapping space” for teachers to use as they reflect on their practices.

Six Themes of Inquiry

The six themes of inquiry intersect with the four dimensions of equity. Cook et al. (2016) conducted a literature review and a series of interviews with the goal of providing a definitive definition of what Inquiry-based instruction is. During their research, they identified six major themes when defining the term inquiry. The six major themes as identified in Cook et al.’s literature review are:

- Student Ownership – When students are encouraged to create, generate, and develop their own personal knowledge (Johnson, 2014; Ko & Mesa, 2014; Tang et al., 2017).
- Knowledge Building – When students are encouraged to use their prior knowledge to build new knowledge (Keene & McNeil, 2014; Tang et al., 2017).
- Students Participating “Doing” – When Students actively participate in the learning process and build their personal identities within the context of their new knowledge (Johnson, 2014, Tang et al., 2017).
- Student-Instructor Relationship – A strong relationship between the instructor and student enables the instructor to understand student thinking and have a better

understanding of their students and their learning (Ko & Mesa, 2014; Tang et al., 2017).

- Peer Involvement – When students routinely engage in explaining and justifying their thinking while others listen to and attempt to understand the thinking of their peers (Rasmussen & Kwon, 2007; Tang et al., 2017).
- Student Success – When instruction is better aligned to how students learn they develop the tools to be able to decipher future problems (Gutiérrez, 2008; Tang et al., 2017).

The six themes identified through Cook et al.'s (2016) literature review and research in combination with Gutiérrez's four domains of equity can be used as an entry point to equity in the classroom (Tang et al., 2017). By understanding the themes of inquiry, teachers can provide inquiry-based instruction that allows equitable academic discourse that builds the students identity within the content and build meaning through consistent formative feedback (Crippen & Archambault, 2012; Tang et al., 2017).

Alignment of Equity and Inquiry

Engaging students in inquiry-based instruction, the teacher's role is to be a guide and knowledgeable expert and to assess students' understanding through formative assessments and to challenge students to further their understanding on their own (Crippen & Archambault, 2012). Inquiry-based instruction provides students opportunities to further their own understanding through social interactions with their teacher and peers. Cook et al. (2016) found that one of the most important themes of inquiry during their literature review was the relationship between the student and their teacher. Hammond (2015) states that "relationships are

not just emotional; they have a physical component. Relationships exist at the intersection of mind-body. They are the precursor to learning” (p. 45).

When teachers build meaningful relationships with their students and provide ample opportunities for students to build positive social relationships with their peers through peer involvement and inquiry-based instruction, the brain signals a sense of physical, psychological, and social safety so that learning is possible (Cook et al., 2016; Hammond, 2015). Inquiry-based instruction can create the environment that supports student participation in the doing, discussion, and presentation of materials that provide under-represented students access to the curriculum (Gutiérrez, 2008; Darling-Hammond, 2008; Tang et al., 2017).

The theme of knowledge building relies heavily on the teacher’s ability to provide meaningful feedback throughout the inquiry-based lesson (Darling-Hammond, 2008; Hattie, 2008; Tang et al., 2017). Nasir et al. (2011) described classroom practices that support equity as those that encourage student-centered (peer involvement) discourse, student exploration (knowledge building), and ongoing feedback. Hattie (2008) conducted a meta-analysis research on the effects of feedback on student learning gains and found that learning gains from effective feedback was highest among low-achieving students. Through ongoing feedback, the teacher better understands the students learning, engages the student in academic discourse, and raises student achievement (Darling-Hammond, 2008; Hattie, 2008; Tang et al., 2017).

When discussing the domain of power, Gutiérrez (2008) expresses that this can be measured by who gets to talk within the classroom. Inquiry-based instruction provides a shift in the power dynamics in the classroom (Tang et al., 2017). Table 2 shows Tang et al.’s (2017) explanation of the shift in power dynamics in each of the six themes of inquiry. Gutiérrez (2008) wrote that when the power shift occurs through inquiry-based instructional practices, the teacher

Table 2

Shift in Power in the Six Themes of Inquiry

Inquiry Theme	Power Shift
Student-Teacher Relationship	The power dynamic in the classroom shifts from covering material to student thinking.
Students Participating “Doing”	The power dynamic in the classroom shifts from the teacher being the sole source of knowledge to students being the creators or producers and users of knowledge.
Student Ownership	The power dynamic of the classroom shifts as students guide traditionally teacher-led components such as pacing and content delivery.
Knowledge Building	The power dynamic of the classroom shifts as instruction is guided by what students already know versus what teachers assume students know.
Peer Involvement	The power dynamic of the classroom shifts as students lead and ask each other questions and learn from content from different points of view.
Student Success	The power dynamic of the classroom shifts as teachers focus on providing on-going feedback based on their understanding of student thinking versus memorization of content.

Note. (Tang et al., 2017).

then provides more space and opportunities for students to build their identity with their content, thus increasing equity.

Identity is the final domain of equity and arguably the most important when building an equitable inquiry-based classroom (Gutiérrez, 2008; Hammond, 2015). Gutiérrez (2008) states that many students down-play their personal, cultural, or linguistic capacities in order to participate in the classroom because of the historical discrimination some groups have experienced in schools. Inquiry-based instruction allows students to share their personal, cultural and linguistic capabilities as the goal is to build on their prior knowledge through social interactions with their peers (Friesen & Scott, 2013; Gutiérrez, 2008; Tang et al., 2017).

Conclusion

The American education system was established on white European norms and a cultural archetype of individualism. Inquiry-based instruction provides the foundation to break the educational norm of individualism by building a social and co-constructed model of learning that encourages teachers to build on students' prior knowledge, engage them in academic discourse with their peers, take ownership of their learning, and build their identities with the curriculum (Darling-Hammond, 2008; Gutiérrez, 2008; Hammond, 2015; Tang et al., 2017). Crippen and Archambault (2012) discuss how in-service and pre-service teachers would benefit from having university-level professional development opportunities that focus on inquiry-based instructional practices to create, scaffold, and implement inquiry in the classroom. In Chapter 3, I describe the PAR research design, the methodologies, the action research cycles, the selection of participants, how data were collected and analyzed, and the limitations and validity of the research study.

CHAPTER 3: RESEARCH DESIGN

On July 1, 2021, I transitioned into the role of principal at Woodland Park Middle School. This new role brought a plethora of changes for the context of the participatory action research project and study; however, the focus of practice and the theory of action remained constant. In the participatory action research (PAR) project and study to design and implement a peer coaching program to support and improve the instructional capacity in inquiry-based teaching and learning of middle school teachers. The PAR context includes the academic performance data, survey data from students, parents, and staff, and interviews with the retiring principal and instructional support team (IST).

Woodland Park Middle School is nestled in the heart of the Woodland community in Jacksonville, NC. A strong instructional team of energetic teachers and support staff are focused on continuous school improvement. During this study, the school had sixteen teachers identified as Beginning Teachers with fewer than five years' experience and six new to the school. The staff's demographic composition of 76% White and 24% Black, Hispanic non-white, Asian, and multi-racial did not reflect our student demographic composition of 53% Black, Hispanic non-white, Asian, and multi-racial. In addition, 47% of our students were identified as economically disadvantaged (receiving free or reduced lunch). The disproportionate structure in our demographics continues to create a cultural disparity requiring high levels of transparency to increase staff awareness and understanding of all students, their individual experiences, and their personal learning needs to enable success for every student.

In this chapter, I discuss the methodological approach to the study, participatory action research. The aim of the project and study is to improve inquiry-driven instructional practices by working with a group of teachers who can serve as peer coaches to beginning teachers. My role

in the project and study was reflecting on the issue, collecting and analyzing data, and facilitating the changes (Mertler, 2019). I used community learning exchange (CLE) methodology and protocols because they align with the commitment to conduct research that is inclusive and participatory and enables collective engagement from the PAR participants (Guajardo et al., 2016). First, I provide an overview of the research design and methodology for the study; then, I outline the cycles of action research and the research questions. The chapter concludes with detailed attention to the methods of data collection and analysis and potential limitations of the study.

Qualitative Research Process

Creswell and Creswell (2018) define qualitative research as an approach for understanding the meaning of complex social and human problems. In the PAR, we explored the social aspects of adult learning and how a group of middle school teachers co-constructed a peer coaching program to increase their instructional capacity to use inquiry-based instructional practices. The PAR was designed to include these characteristics of qualitative research:

- Natural setting: The research process included up-close information that I collected directly from talking with people and seeing them interact within their natural or *in situ* context.
- Researcher as a key instrument: I collected data by examining documents, keeping field notes and reflective memos, observing classrooms and coaching conversations, and facilitating the meetings in which I used CLE protocols to collect evidence, and interviewing participants.

- Multiple sources of data: I collected and analyzed data through a variety of methods so that I could triangulate the evidence and have assurance that the qualitative evidence
- supports the findings. The data collection methods were open-ended so that participants can share their ideas freely (Creswell & Creswell, 2018).

Next, I examine the elements of qualitative research that I utilized in the PAR research cycles and with the PAR participants.

Participatory Action Research

I selected action research for the study because this method addresses the improvement goals I had, and we had as a team to increase the instructional capacity of middle school teachers in inquiry-based instructional practices through peer coaching. Creswell (2005) describes action research as “educators aim[ing] to improve the practice of education by studying issues they face” (p. 550). Throughout this study, educators reflected on the analysis of the data I collected and implemented changes based on the evidence from iterative cycles of inquiry. To achieve transformational change in the instructional practices at Woodland Park Middle School, those involved had to have fundamental roles in the process (Freire, 2018) and were the persons closest to the issue at hand in order who developed local solutions to the issue (Guajardo et al., 2016). Four processes supported the PAR methodology: improvement science, activist PAR, community learning exchanges, and the role of praxis.

Improvement Science

Improvement science brings educators into the research as active participants and into an improvement network to form a colleagueship of expertise to address a specific problem (Bryk et al., 2015). In the PAR project, we used the following improvement principles to design,

implement, and revise the peer-coaching program to increase teachers' internal capacity in inquiry-based teaching and learning in the classroom:

- Make the work problem-specific and user centered
- Focus on variation in performance
- See the system that produces the current outcomes
- Create systems of measure to ensure improvement at scale
- Use disciplined inquiry to drive improvement
- Accelerate learning through networked communities (Bryk et al., 2015, p. 172).

The improvement science principles were central to the PAR in answering the overarching question on how an instructional support team designed and implemented a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers. Jewett and MacPhee (2012b) contend that “members of such communities [communities of practice] are willing to wonder, to ask questions, and to try to understand issues related to their work lives” (p. 106). As the community of practice – the members of the instructional leadership team (IST) and I shared methods and experience. As a result we learned how to do our work better.

Activist PAR

Participatory activist research requires the researcher to be involved in the process of dialogue and collective work with the participants throughout the research process as a tool to disrupt inequities (Hale, 2001; Halverson & Kelley, 2017). By adhering to the principle of equity, I have designed the PAR project to be a collaborative endeavor on a common issue -- inquiry-based instruction -- and a place in which we could build our professional knowledge and skills. In an activist PAR project, researchers utilize the everyday and personal experiences,

emotional dynamics, and social relations to build the capacities of the participants to learn from each other through social action and implement change based on their findings to disrupt inequities (hunter et al., 2013). The methodology of community learning exchanges provided the foundation for the PAR to connect the participants in a social construct to learn from each other through the means of dialogue because CLEs are built on the activist principles of addressing equity issues and involving all participants (Guajardo et al., 2016).

Community Learning Exchange

Guajardo et al. (2016) define the purpose of a community learning exchange (CLE) approach:

A CLE provides an opportunity for diverse community members to come together for a period of engaged, deep learning. Together in relationship, these community members openly examine their common challenges, collective gifts, and then freely exchange successful approaches and tools that can drive changes within themselves, their organizations (including schools), and their communities. (p. 3)

A team of teachers, the Instructional Leadership Team (IST) participated in meetings using CLE protocols in each cycle of inquiry to discuss their experiences with inquiry-based teaching and learning and peer coaching. The CLE protocols and the artifacts generated from the use of the protocols provided a foundation and a methodology for the PAR and evidence for qualitative analysis that guides our inquiry cycles. The five CLE axioms were vital to the PAR as we worked to expand the social aspects of learning.

1. Learning and leadership are dynamic social processes.
2. Conversations are critical and central pedagogical processes.

3. The people closest to the issues are best situated to discover answers to local concerns.
4. Crossing boundaries enriches the development and educational process.
5. Hope and change are built on assets and dreams of locals and their communities (Guajardo et al., 2016).

Adhering to these axioms ensured that those involved with the PAR had an active role in identifying instructional needs and be an active participant in enacting change based on data and personal experiences.

Role of Praxis

Reflection in PAR was vital to the improvement cycles in order to bring about change in the instructional practices of middle school teachers. Through reflection, I continued to examine assumptions about the research questions, methods, action steps, and data analysis. However, the type of reflection that Freire (2018) speaks of in the concept of praxis is different. He explained that it is not enough for people to come together in conversation to gain knowledge; they need to reflect critically on their reality and transform it through meaningful action.

As too often reform efforts in schools are at a surface level, in the PAR, I paid attention to developing activities that encourage praxis – critical reflection to take meaningful action. During the meetings with teachers, I asked members to reflect on readings, art, successes and challenges, and observational data. The action of reflection helped our team co-construct knowledge on inquiry-based teacher and learning and peer coaching to co-generate our next action steps. In addition, the act of reflection played an important role to me as a lead researcher and as the leader of our school. I engaged in writing reflective memos to capture my thoughts, reactions, and learning on the activities in this PAR. I used these reflective memos as part of the

inquiry cycle to make the necessary adjustments to the PAR cycles, activities, and data collection.

Research Questions

The overarching PAR question was: *How does the Instructional Support Team (IST) design and implement a peer-coaching program to support and improve inquiry-based instructional practices of middle school teachers?* To ensure a systematic and methodical approach, I developed PAR activities aligned to each research question in the data analysis section below. In the PAR project, we sought to answer a set of sub-questions:

1. To what extent does an IST collaboratively design a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?
2. To what extent does an IST implement a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?
3. To what extent does the involvement in creating and refining a peer coaching program improve the IST team's knowledge, skills, and dispositions in inquiry-based instructional practices?
4. How does involvement in creating and refining a peer coaching program improve the principal's knowledge, skills, and dispositions as an instructional leader?

Next, I discuss how we used three cycles of inquiry over the course of sixteen months to address the research questions. I share the timetable of the PAR cycles and the PAR activities for each cycle (see Table 3).

Action Research Cycles

Action research is used to solve or improve a specific educational problem (Creswell, 2005). The PAR project aims to collaboratively design and implement a peer coaching program

Table 3

Research Cycle Timetable and Related Activities

Research Cycle	Time Period	Activities
PAR Pre-Cycle and Context	Spring 2022	• One CLE • One Interview with IST Members • Reflective Memos • Classroom Observations
PAR Cycle One	Fall 2022	• Two CLE • One Interview with IST Members • Classroom Observations • Reflective Memos
PAR Cycle Two	Spring 2023	• Two CLE • One Interview with IST Members • Coaching Conversations • Classroom Observations • Reflective Memos

to support and improve inquiry-based instructional practices of middle school teachers. The action research cycle is a holistic approach to improve the IST's performance in inquiry-based instructional practices and peer coaching by improving the teams practice by learning together, solving complex problems, and making better decisions through cycles of inquiry (Mertler, 2019). I conducted three cycles of inquiry and selected activities for each PAR cycle.

Pre-Cycle and Context

To gain further understanding of Woodland Park Middle School's assets and challenges, I hosted a community learning exchange (CLE) to listen to the stories of those the PAR will impact the most, the teachers. During the CLE, the IST engaged in discourse on inquiry-based teaching and learning, in-service professional development protocols, and their experiences with coaching. The artifacts gathered during the CLE provided a deep analysis of the assets and challenges of Woodland Park Middle and spotlighted teachers who shared a desire increasing equity-focused inquiry-based teaching and learning through peer coaching.

I used the data I collected for the Pre-Cycle to invite participants to work with me to design the peer coaching program to support the teachers at Woodland Park Middle School. Once participants were identified, we reflected on the assets and challenges of developing a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers and identified strengths of the participant group through classroom observations.

PAR Cycle One

In PAR Cycle One, the IST engaged in a regular meetings using CLE protocols to review and have conversations on the observational data to identify which inquiry-based instructional practices would benefit the teachers at Woodland Park Middle School. Throughout this cycle of inquiry, members of the participant group engaged in a series of internal in-service professional

learning, designed with CLE pedagogies, on how to have effective coaching conversations and conduct classroom observations using the inquiry observational tool. Members of the participant group provided in-service professional learning on the identified inquiry-based instructional practice to the other participants and then observed classroom and facilitated post-conference peer coaching conversations.

PAR Cycle Two

In the final PAR cycle, we invited all participants involved in the PAR to participate in a CLE to share their experiences with the peer-coaching program and provide the participant group with data that informed the final cycle of inquiry. The participant group utilized the data collected during the CLE to reflect on the identified needs of individual teachers and adjusted the peer coaching program to provide teachers the targeted support they needed to improve their inquiry-based instructional practices. Next, I discuss how I selected participants of the PAR project and the process for collecting and analyzing data.

Participants, Data Collection, and Analysis

I carefully selected the Instructional Support Team based on key attributes. They acted as co-practitioner researchers (CPR) in the study. Then I describe the second set of participants. Finally, I describe the data collection and analysis process for the PAR project.

Participants

The PAR participants were members of the Woodland Park Middle School staff who have a desire or identified need to increase inquiry-based instruction within the classroom. The Instructional Support Team, comprised of the principal, assistant principal, instructional coach, instructional framework lead teacher, and two additional teachers were primary participants in the PAR project. I provided all PAR participants a consent form (see Appendix D) and the ability

to withdraw from the PAR at any time. Next, I discuss how I selected participants for the PAR, how the PAR impacted those selected, and the selection criteria used to select the participants.

Members of the Instructional Support Team (IST) served in the roles of co-practitioner researchers (CPR) group for the PAR; for the purpose of the PAR, I refer to them as the IST. Initial data review, principal transition meetings, and conversations with teachers at Woodland Park Middle School suggested that these teachers have respect from their peers, which is crucial for the social and organizational change the PAR is seeking in increasing inquiry-based instructional practices in the classroom (Crowther, 1997; Danielson, 2006; York-Barr & Duke, 2004). IST members had a history of demonstrated excellence in teaching and advocate for change in the educational practices at Woodland Park Middle School.

I used purposeful sampling to select PAR members (Patton, 1990), which involved confirming, identifying, and selecting individuals who are knowledgeable or experienced with an interest in increasing inquiry-based instructional practices (Creswell & Clark, 2011). I selected qualified and willing participants with a common goal of developing a program to increase inquiry-based instructional practices by identifying and training peer coaches. The selected members served on the IST and for the PAR purpose are termed the IST.

In addition to the IST, I relied on the knowledge, experiences, and needs of various teachers within Woodland Park Middle School. These participants provided qualitative data through CLE artifacts, classroom and coaching observational data, and interviews. The roles of participants and IST members changed as we moved through the action research cycles.

Table 4 provides attributes that I looked for in PAR participants and the data sources I used for analysis. The participants were two groups: co-participant researcher (CPR) or IST member and other participant. During the PAR Pre-Cycle, the other participants were beginning

Table 4

Selection Criteria for PAR Participants

Type of Participant	Attributes
Co-Participant Researcher (CPR)	Respected leader of their peer group Interest in inquiry-based teaching and learning Members of the IST, Title I, PBIS, or Building Leadership Team
Other Participants	Beginning Teachers Identified instructional need for inquiry-based protocols

teachers who I invited to participate in a CLE to share their experiences with coaching, learning, and in-service professional learning. The other participants participated in a CLE with the IST to begin designing a support program and plan in-service professional development. The information gained during the Pre-Cycle CLE guided the IST on identifying transformational practices and instructional needs in middle school classrooms.

During the PAR Cycle One, the IST engaged in professional learning to cultivate their skills for conducting inquiry observations in classrooms and having effective conversations with teachers. The IST conducted observations of each other to hone their skills and to reflect on their practices. I conducted inquiry-based observations of IST members and held post-observation conferences with them. In the PAR Cycle Two, the IST conduct inquiry-based observations in classrooms to identify specific needs. The IST then facilitated in-service professional learning and peer coaching to support them in increasing their use of inquiry-based instructional practices. These participants provided qualitative data through classroom observations, CLE artifacts, and peer coaching conversations.

Data Collection

The PAR is a qualitative study in which I “rel[ie]d on text and image data, ...unique steps in data analysis, and drew on diverse designs” (Creswell & Creswell, 2018, p. 179). I used multiple methods in the PAR to collect qualitative data: artifacts from CLEs, IST meeting notes, observational data, individual interviews, coaching sessions, and reflective memos as the qualitative data collection instruments. In Table 5, I detail the data collection instruments that I used in responding to the research questions. I selected these data collection tools based on Creswell and Creswell’s (2018) description of the three basic types of data collection tools:

Table 5

Research Questions and Proposed Data Collection

Research Question	Proposed Data Collection	Triangulated with
1. To what extent does an IST collaboratively design a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?	• Document Review • Meeting Notes • Observations • CLE Artifacts	• Reflective Memos
2. To what extent does an IST implement a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?	• Document Review • Meeting Notes • CLE Artifacts • Coaching Conversation Protocol • IST Meeting Notes	• Reflective Memos • Member Checks
3. To what extent does the involvement in creating and refining a peer coaching program improve the IST team's knowledge, skills, and dispositions in inquiry-based instructional practices?	• Observations • Interviews • Coaching Conversations • CPR Meeting Minutes	• CLE Artifacts • Reflective Memos • Member Checks
4. How does involvement in creating and refining a peer coaching program improve the principal's knowledge, skills, and disposition as an instructional leader?	• Reflective Memos • CALL Survey	• CLE Artifacts • Interviews

- Qualitative observations in which the researcher takes field notes on the actions and behaviors of individuals in both structured and unstructured methods.
- Qualitative interviews in which the researcher conducts semi-structured and open-ended questions to gain participants views and opinions; and
- Analysis of documents that include reflective memos, agendas, meeting notes, artifacts from CLEs and coaching sessions.

Document Review

I collected documents throughout the PAR project; these included IST meeting minutes, classroom observation documentation, and Flipgrid posts. Saldaña (2016) states that “each artifact has a history of how it got there and a reason or meaning for its presence” (p. 16).

Documents provided me with the words from the participants and what they find important in the PAR (Creswell & Creswell, 2018) We held regular IST meetings and I collected artifacts such as agendas, written reflections, transcripts of meetings, artistic expressions, and journey lines. I coded and analyzed these documents to find emerging categories in PAR Pre-Cycle, emerging themes in PAR Cycle One and verified findings in PAR Cycle Two. I used the iterative data to guide the direction of the IST throughout each PAR cycle.

Observations

The PAR included classroom observations of inquiry-based instructional strategies using the Inquiry Observation Tool. I collected observational data using structured processes, including the use of selective verbatim and coding using pre-established codes (Acheson & Gall, 1992; Saldaña, 2016). The IST had roles as observers during observations. I met with IST members to debrief observations during coaching sessions, and we coded the data.

CLE Artifacts

I used CLE protocols as a methodology to frame the improvement cycles of PAR project. Table 6 outlines the CLE pedagogies that the PAR project utilized for reflection. In each of the three PAR cycles, we used different combinations of the pedagogies to promote authentic engagement among the participants. Guajardo et al. (2016) state, “Community Learning Exchanges strive to develop and use strategies that empower local people in their own space to find solutions that are organic in order to meet the needs of the people that live in and sustain healthy communities” (p. 9). By using the CLE pedagogies, we collected data from the artifacts that provided an authentic voice to those involved in the PAR.

Notes and Coaching Conversations

I collected taped conversations between members of the IST and the participants who they are coaching. Participants provided consent (see Appendix D) with the understanding that they can exit the PAR project at any time. Taped conversations provided the participants a gracious space for peer coaching sessions without me, the principal, a hierarchal figure in the room. I transcribed and coded taped conversations using Saldaña’s (2018) open coding.

The IST engaged in in-service professional learning on how to effectively hold post-conference peer coaching conversations with teachers based on their specific identified need in inquiry-based instructional practices. The IST used the *Effective Conversation Guide* (Tredway et al., 2020), and I took analytical notes that used pre-set codes.

Interviews

I collected interview data using focus group sessions after observations with our IST; and with reflective questions using the Individual Interview Protocol (see Appendix E). I asked open-ended questions during the focus group sessions to provide participants the space and

Table 6

CLE Pedagogies and Qualitative Artifacts

CLE Pedagogies	CLE Artifacts
Journey Lines	Collect the Journey Lines
Storytelling / Personal narratives	Identify themes of stories
World Café	Identify themes on co-created documents and collect the documents
Gracious Space	Participant reflections collected and coded for themes
Fishbowl	Participant reflections collected and coded for themes
Arts Intersection	Participant reflections collected and coded for themes

opportunity to express their views, opinions, and predictions based on observational data, text, or arts intersection. Creswell and Creswell (2018) describe interviews to provide semi-structured, open-ended opportunities for participants to share their experiences and perceptions. I conducted informal interviews with members of the IST during check-ins at the end of each PAR cycle. I also meet with members of the IST individually in the context of coaching and reflection on the peer coaching program. I collected data from these meetings by providing agendas and official minutes as well as reporting the meeting minutes as units of analysis. I coded these activities using Saldaña's (2016) open coding.

Reflective Memos

To fully understand my experience, I engaged in writing reflective memos to explore my ontological and epistemological stance, re-examine my perspective, knowledge and disposition, and adjust my action steps as needed. Writing in a cyclical process, I utilized the four-step Kolb cycle of experiential learning process (McLeod, 2017):

- Engage in an experience
- Reflect on the experience
- Conceptualize the experience with current and/or changing knowledge
- Plan for action

Freire (2018) explained that it is not enough for people to come together in conversation to gain knowledge, that they, need-to reflect critically on their reality and transform it through meaningful action.

Data Analysis

I conducted data analysis as I engaged in data collection; this allowed the data analysis to inform the IST in making iterative decisions throughout the PAR processes. I collected data each

PAR cycle and triangulated with the data sources. At the end of each PAR cycle, I conducted member checks for the IST to respond to evidence collected to ensure the validity standard as described in the study limitations (Creswell & Clark, 2011).

In the PAR study, I utilized formal and informal qualitative data methods to collect information and establish a process to record this information (Creswell & Creswell, 2018). The data collecting methods produced evidence from interviews, observation notes, document reviews, and antidotal notes. I used Creswell and Creswell's (2018) five-step process to analyze the data collected during each PAR cycle. First, I organized and prepared the data for analysis by transcribing interviews, optically scanning material, sorting, and arranging data into different types. Second, I read and scanned all the data to gain an understanding and general sense of the information collected. Third, I coded all the data using methods as described by Saldaña (2016). Saldaña (2016) explains how to move from open coding to categories and then identifying themes that provide assertions about the PAR. I developed codes to aide in the data analysis, these codes helped identify categories and emergent themes. At the end of the PAR the IST take took emergent themes to develop our findings and claims. Creswell and Creswell (2018) describe the fourth step of data analysis is to generate a description and themes and then conduct member checks. The final step is to present the themes and descriptions through qualitative narratives which I completed at the end of each PAR cycle.

Considerations: Limitations, Validity, and Confidentiality and Ethics

In discussing the limitations to the PAR project, I address internal validity, external validity, and the steps I took to ensure the trustworthiness of the PAR. I brought to this study ideas of what I wanted to study and characteristics of those who I invited to join me in the research as members of the IST. Together, we planned and implemented the CLE, and reviewed

the artifacts collected. As an IST, we discussed the data throughout the PAR cycles to allow multiple perspectives in our cycles of inquiry and reflection to bring about change (Gerdes & Conn, 2001).

I considered my role in the group and within the school. I have an influential role as the school principal and the authority that follows the position, which required me to take special precautions to ensure all participants gave informed consent without any coercion or sense of obligation. All participants could decide to terminate their consent at any time without reprisal.

I formally requested approval to conduct the study from the school district's IRB and have completed the Institutional Review Board Collaborative Institutional Training Initiative (IRB CITI) certification in December 2020 to comply with ethical requirements governing human research (see Appendix A).

Internal Validity

To ensure validity and trustworthiness of the data being collected for the PAR project, I checked for the accuracy of the findings by: (1) using member checks; (2) engaging in long-term observation; (3) asking colleagues to comment on findings as they emerge; (4) involving participants in all phases of the research from and (5) triangulating the data collected (Creswell & Creswell, 2018).

I used member checks to determine the accuracy of the qualitative findings by taking back identified themes from the coding process to the IST. The IST provided feedback on whether they agreed with the accuracy of the findings. By involving the IST in member checks we ensured the validity of data collection because the participants were able to have ongoing dialogue regarding interpretation of the data and make meaning together (Creswell & Creswell, 2018).

The PAR project ensured that I, the researcher, engaged in long-term observation so that I developed an in-depth understanding of the context in which the PAR took place. I conducted the research for this PAR project over eighteen months, providing the opportunity to gather qualitative data for three cycles of inquiry with participants. Long-term observation provided validity to the data as I developed an in-depth understanding of how an IST can design and implement a peer-coaching program that supported and improved the inquiry-based instructional practices of middle school teachers. As the researcher, I provided descriptive details about the site and the people involved in the PAR project. Creswell and Creswell (2018) states that the more experiences I have with participants in their setting, the more accurate and valid the findings will be.

I engaged the IST and other participants in the PAR project from conceptualization to the data analysis. The CLE was a foundational experience that led the study in deep and purposeful conversations (Guajardo et al., 2016). During each PAR cycle, participants engaged in CLE to share experiences, beliefs, and insights to the PAR project that guided the next action cycle. In the Pre-Cycle's CLE, participants provided the context, assets, and challenges, and interest in the PAR project.

I triangulated the data to ensure the internal validity of the PAR project (Gerdes & Conn, 2001). The information collected from the data collection tools built a coherent justification for the findings of this PAR project (Creswell & Creswell, 2018). Next, I will describe the external validity of the PAR project.

External Validity

The project was designed within the context and scope of the work of the school district. The PAR project may be generalized to the scope of work within the county, but caution should

be taken when applying the study results to other schools or districts; there is transferability or external validity for the process to other schools, but not specific outcomes for the schools. According to Creswell and Creswell (2018), the value of qualitative research is dependent on the context of a specific site. Therefore, the process the PAR project undertook could be replicated in other schools; however, the results are not dependable across contexts. By using activist research methodologies, the PAR was a collaborative effort with the IST who actively participated, learned research skills, contributed to data collection, and played an active role in the praxis of knowledge making to implement a peer coaching program to support inquiry-based instructional practices (Hale, 2001).

Confidentiality and Ethical Considerations

The PAR participants were site-based practitioners committed to support and increase the instructional capacity of teachers in inquiry-based teaching and learning through the practice of peer coaching. I selected participants based on their work, interest, and existing relationships with their peers. I met with potential participants individually to ask them in their interest in being part of the PAR project. The school and participants who were involved in the PAR were protected and assigned pseudonyms. Data collected during the PAR was presented in a non-judgmental manner and shared with the CPR and school district. Participants were required to sign consent forms approved by East Carolina University's Institutional Review Board (see Appendix A). Participants were informed that participation is entirely voluntary.

Data security and the confidentiality of the participants was a priority for the study. Confidentiality was maintained through the following measures (Creswell & Creswell, 2018):

1. Important and personal papers and data files were stored in a locked file cabinet.
2. All electronic forms for data collection were kept in password protected file.

3. Data and copies of reports were shared with the IST for purposes of transparency, improvement, and reflection.

Conclusion

In this chapter, I provided the research design and methodology for the PAR study that supported responses to the research questions. The IST participated in PAR methodology by actively engaging in three cycles of inquiry, participating in CLEs in each PAR cycle, and using the CLE axioms and pedagogical approaches to connect with the PAR participants. I collected and analyzed data throughout the PAR project to identify patterns and worked with the IST to plan our next steps. I detailed the processes for data collection and analysis and the role of reflection, potential limitations, and the ethical considerations of the PAR study.

CHAPTER 4 : PAR PRE-CYCLE

The new leader's job is to create a powerful vision that allows room for things to occur that are as yet undreamed of. The leader must hold the definition of the vision so clearly that all the players involved are able to align with it daily. Benjamin Zander (2008)

In Chapter 1, I named the FoP for the PAR project and the assets and challenges at the macro, meso, and micro levels. In Chapter 2, I presented the research that provided a foundation for the research and in Chapter 3, I described the research design of the PAR project. In this chapter, I provide the context of the PAR, the process of the Pre-Cycle, the emergent categories identified through analyzing the data, and conclude with reflections on the PAR Pre-Cycle and how it influenced my plan for PAR Cycle One.

PAR Context

The overarching research question for the PAR is: *How does an Instructional Support Team (IST) design and implement a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers?* In this section, I describe the context of the PAR in two sections, 'The Park,' where the PAR took place, and 'Instructional Support Team,' who participated in the PAR.

The Park

Woodland Park Middle School students are residents of various neighborhoods within the Jacksonville city limits in Onslow County, North Carolina. Onslow County has a population of 193,912 residents, according to AccessNC. Jacksonville is the commercial hub of Onslow County. With a 2020 population of 72,926, Jacksonville is the 14th largest city in North Carolina. It is the home to Marine Corps Base Camp Lejeune and the Marine Corps Air Station New River.

For this reason, our community comprises people of various cultural and ethnic backgrounds and is very transient. In the 2020-21 school year, 44% of Woodland Park Middle School students have a military connection through uniformed services or civil service positions. A dominating influence impacting the transient student and staff population of Onslow County is the Marine Corps Base Camp Lejeune, the largest amphibious training military base in the world. In January 2020, the Combat Logistics Battalion 2 (CLB-2) adopted Woodland Park Middle School as its military partner. Since the adoption, CLB-2 Marines have participated in various activities on campus and interacted with students and staff.

In May 2021, students, parents, and staff completed surveys through AdvancED to gauge their opinions on the climate and culture at Woodland Park Middle School during the 2020-2021 school year. The results of those surveys directly relate to the FoP and the instructional practices at Woodland Park Middle School (see Figure 8).

The survey results reveal a discrepancy in the view of instructional practice between our teachers and our students and parents. During the initial CLE, we will explore this area to understand better teacher perceptions and inquiry-based teaching and learning, what collaborative group work looks like, and what academic tasks are being completed.

Instructional Support Team

The IST is comprised of teacher leaders around the campus of Woodland Park Middle School that desire to co-create a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers. Teachers who have joined the IST demonstrated the five principles of transformational coaching: compassion, curiosity, connection, courage, and purpose (Aguilar, 2020).

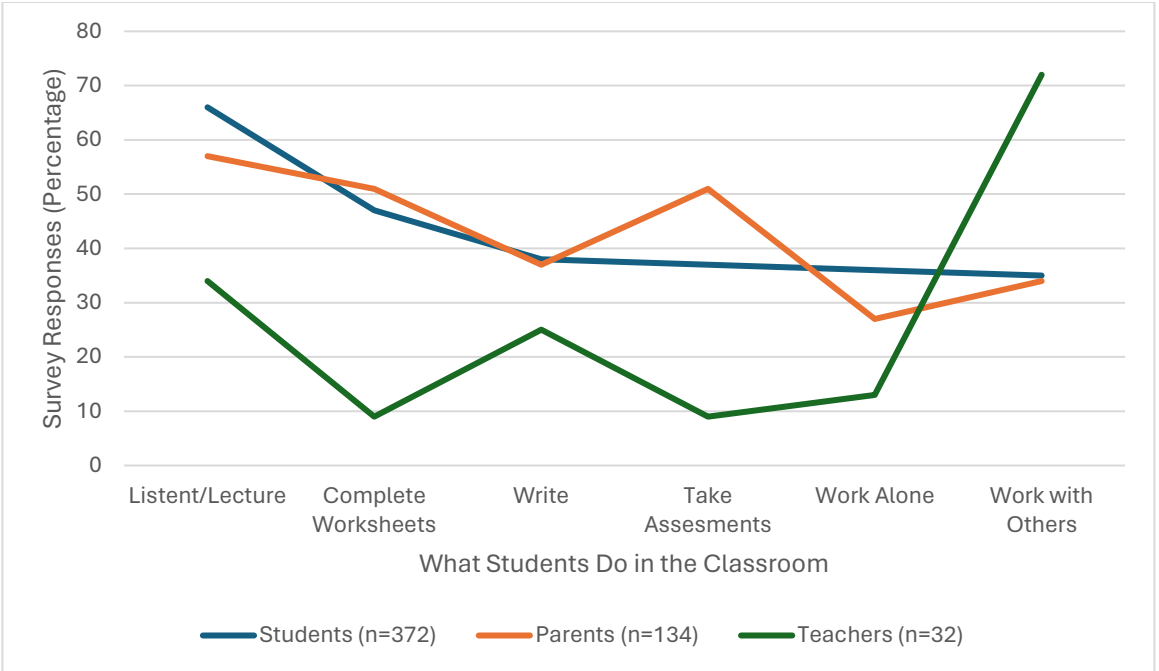


Figure 8. AdvancED climate and culture survey results.

Teacher A was the current eighth-grade chair and the advisor for the Woodland Park Middle School Student Council. In addition, Teacher A served on the AVID site team and as a mentor for our beginning teachers. Teacher A taught at the high school level before joining the staff at Woodland Park Middle and brings a unique perspective on leadership. She described her leadership journey beginning with serving as the sixth-grade representative on her school's student council and as the section leader of the trombone section during her sophomore year in high school. Teacher A has led in-service professional development sessions throughout the 2021-2022 school that focused on building relationships and discovering "your why."

Teacher C joined the staff at Woodland Park Middle School late in the 2021-2022 school year with experience working with Students with Disabilities (SWD) and has fifteen years of experience in the educational field, administrative licensure, and has served in numerous leadership roles in their previous district. Teacher C experiences the public school system through the eyes of a French immigrant and with the eyes of a mother with children of color. Teacher C credits her growth and pursuit of leadership roles to her colleagues that have pushed her to take the next step.

Teacher D was named the WPMS teacher of the year, and she was the district's mentor of the year for the 2021-2022 school year. She brings a wealth of knowledge as she has worked in a wide range of grade levels from kindergarten to middle school. Teacher D serves on the AVID site team for WPMS, is the Beta Club advisor, and provides STEAM lessons and activities with our students throughout the year.

Teacher E entered the field of education after fifteen years in the private sector. Teacher E serves as the beginning teacher (BT) coordinator for WPMS and serves on the PBIS team and School Improvement Team. She was encouraged to become a teacher throughout their fifteen

years of private sector work and it took a firefighter to convince her to take the leap into education. She is currently in her fourteenth year of teaching Career Technical Education (CTE) for the district.

Teacher F was the AVID coordinator for WPMS and serves on the PBIS team and as a mentor of our BTs. He has a reputation for building strong relationships with his students and compassion when working with his mentees. Teacher F also has private sector experience where he supervised aspects of a large chemical trucking fleet. He expressed that these experiences gathered during their time supervising the trucking fleet has prepared him to deal with the pressures and challenges of serving in leadership roles. Teacher F believes that teaching should reflect the individual and enters the role to learn from their peers by observing their teaching style and the uniqueness their peers bring to the classroom. Table 7 includes years of experience, subject area, grade level, and other leadership committees served. In describing PAR Pre-Cycle process, I detail the activities we completed, the data, the emergent categories, and how the Pre-Cycle guided the planning of PAR Cycle One.

PAR Pre-Cycle Process

To develop a peer coaching program to support and improve inquiry-based teaching and learning in the classrooms of Woodland Park Middle School, I invited a group of teachers to join a CLE to have honest discussions about the observations and traits necessary to be a successful peer coach and their identities as leaders and coaches. Five teachers volunteered to participate in the CLE and join me in this PAR project. Before the CLE, I reviewed the consent form (see Appendix D) and provided an opportunity for the participants to ask any questions. Once the teachers agreed and signed the consent form to become members of the Instructional Support Team (IST), I held a CLE designed to look at the role of peer coaches and their knowledge and

Table 7

IST Members

Teacher	Years of Experience	Subject Area	Grades Taught	Committees
Teacher A	5-10 Years	Social Studies	8 th Grade	Student Council, AVID, Mentor
Teacher C	10-15 Years	Exceptional Children	6 th Grade	
Teacher D	20-25 Years	Media Specialist	6 th -8 th Grade	AVID, Beta Club, Mentor
Teacher E	15-20 Years	STEM and CTE	6 th -8 th Grade	Beginning Teacher Coordinator, PBIS, Mentor
Teacher F	15-20 Years	Social Studies	7 th Grade	AVID Coordinator, PBIS team member, Mentor

Note. Teacher B transferred to another school.

dispositions on observations. I describe the activities conducted during the Pre-Cycle and how I coded the data to identify three emergent categories.

Activities

During the Pre-Cycle, I collected data through meetings with the IST, a CLE, and reflective memos. Table 8 shows the timeframe of the activities conducted during the Pre-Cycle of the PAR project and study. The IST participated in two meetings to review the consent form for participation and respond to questions and to conduct a member check for the data collected during the CLE. I discuss in detail the CLE protocols and how the participants engaged during each protocol, the process I used to write reflective memos throughout the PAR project, and the strategies employed to code the data collected in the Pre-Cycle activities.

CLE

The five teachers who volunteered to be part of the IST completed a journey line before the CLE. The journey line required the IST members to reflect on the leadership experiences that shape their identities as educators. The IST followed the protocol Final Word to share the leadership experiences that shape their identity as an educator. Once the IST shared their leadership stories, each member identified the commonalities in their leadership journeys and expand on their leadership story that has impacted their identities as an educator.

After the personal narrative activity, I presented four questions in which we explored their experiences, dispositions, and identities through the lens of observation as a peer coach:

1. How can observations be made more effective?
2. How did you learn to observe?
3. What are your own experiences being observed? and;
4. What do you want to offer to your peers?

Table 8

Pre-Cycle Activities

Activity	Mar 29-1 April	4-8 April	11-15 April	17-22 April	24-29 April
Reflective Memos	X	X	Break	X	X
Meeting with IST	X		Break		X
Learning Exchange		X	Break		

The IST divided into groups to reflect and respond the questions utilizing the chalk talk protocol with two rounds of time to express thoughts, beliefs, and dispositions on what assets and challenges we created a peer coaching program to support and improve inquiry-based teaching and learning at Woodland Park Middle School. As we closed the CLE, the IST completed a three to five-minute elevator speech on how they would explain their role as a peer coach and what expertise they brought to assist one of their colleagues. Next, I describe the process and protocols used to complete reflective memos that follow my disposition and identity as an instructional leader at Woodland Park Middle School.

Memos

To fully understand my personal experience, I wrote reflective memos to explore my ontological and epistemological stance, re-examine my perspectives, knowledge, and dispositions, and adjust action steps based on the data and activities completed. When writing the reflective memos, I wrote in a cyclical process utilizing the four-step Kolb cycle of experiential learning (McLeod, 2017):

- Engage in an experience
- Reflect on the experience
- Conceptualize the experience with current and/or changing knowledge
- Plan for action

The process of writing reflective memos provided me the opportunity to engage in reflecting critically on the experience I engaged in with the IST and transformed my understanding, knowledge, and disposition so that I could plan appropriate next steps (Freire, 2018). I code the reflective memos to triangulate data found throughout the PAR process.

Coding

Throughout the Pre-Cycle, I collected, organized, and prepared data by transcribing conversations, optically scanning material, and sorting and arranging data into different types. I then read and scanned the data to understand and gain a general sense of the information. I coded all the data using the methods of Saldaña (2016). I developed codes that aided in analyzing the data to discover emergent categories, which I explain next. After I coded the data, I conducted member checks with the IST to ensure that their thoughts, dispositions, and beliefs were coded and reflected accurately. In the final section of this chapter, I describe the three emergent categories that were revealed during the Pre-Cycle of the PAR, my reflections and planning process for PAR Cycle One and the conclusion to Chapter 4.

Emergent Categories

In conversations with the IST, they wanted to build a peer coaching program to develop the capacity of their fellow teachers to increase use of inquiry-based instructional practices. To successfully implement inquiry-based strategies in the classroom, the IST members said they needed to support their peers in building relationships with their students and connecting their peers with their passion and teaching style. In this section, I discuss the three emergent categories revealed through analyzing the data collected during the PAR Pre-Cycle: attributes of a peer coach, learning to observe, and peer coaching goals (see Table 9).

Attributes of a Peer Coach

When analyzing the codes collected from the PAR Pre-Cycle activities, the IST described the attributes they, as peer coaches, have or should have to increase a peer's instructional practice successfully that included critical dispositions and knowledge: love of the profession, positive outlook, and knowledge of instruction. The emergent category of attributes of a peer

Table 9

Emergent Categories and Codes from PAR Pre-Cycle

Emergent Category	Codes	Code Frequency
Attributes of a Peer Coach	Love for the profession Positive outlook Knowledge of varied instructional strategies	12/30%
Learning to Observe	Guidance on observational practices Natural learning and curiosity Identity as observer	15/37.5%
Peer Coaching Goals	Growth for all Provide feedback Connecting to passion	13/32.5%

coach focused on the traits and characteristics needed to be successful in serving as a peer coach (n=15 or 30% of the evidence). For the IST to build and implement a peer coaching program to increase and support beginning teachers in using inquiry-based instructional practices, they focused on the more elusive attributes that were necessary first and instruction as a necessary set of knowledge, skill, and dispositions for peer coaching.

Love for the Profession

During the chalk talk protocol, the IST shared that a peer coach needs to have a love for the profession. Figure 9 shows the silent discussion the team had when answering, “What do you want to offer your peers?” Throughout the activity, the IST kept adding to the comment, “Heart – show passion.” The additions to the comment were excitement and love for the profession. Throughout the IST’s elevator speeches, they focused on love of the profession when they described their role as peer coaches to learn and grow together.

For example, Teacher C expressed this desire to learn and grow together during their elevator speech when they wrote, “I am here to help ensure all our growth since I will learn from you too.” This mindset of co-constructed learning was also mentioned by Teacher F when they explained their role as a peer coach as:

My role is solely as support and to help me grow and learn as well as see if there is any areas of your teaching in which I may offer you suggestions to make you even stronger of a teacher. This experience is not intended to only help you or myself but can help everyone in our school.

Teacher A facilitated this discussion on leading with passion and the importance of helping their peers connect to their ‘why’ and who they are when lesson planning and leading learning in their classroom. They stated the importance of building relationships with their students in order for

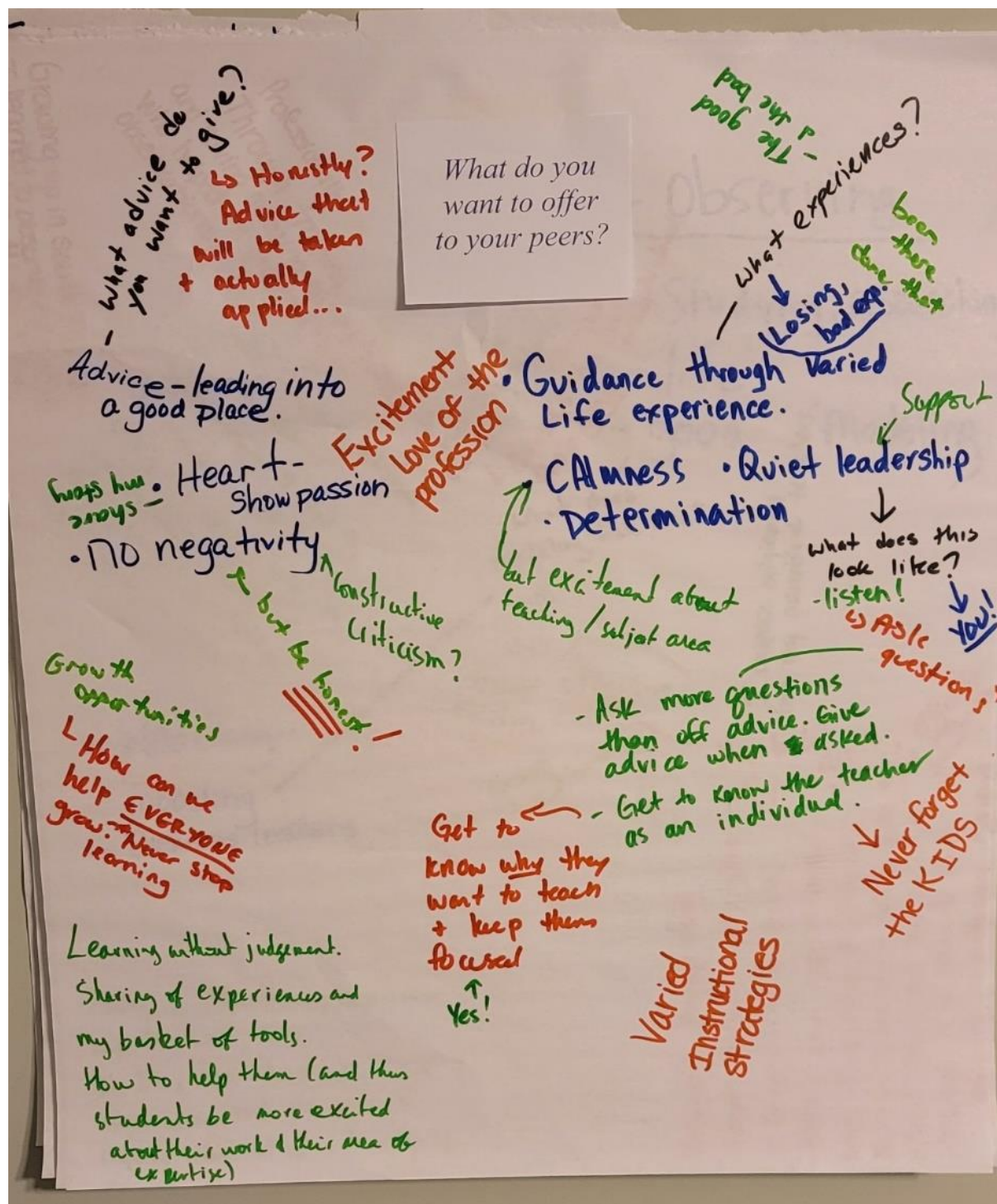


Figure 9. Artifact from chalk talk indicated what IST members wanted to offer to their peers.

inquiry-based instruction to be successful. Teacher A summarized their thoughts during their elevator speech:

My role is in supporting you, connecting you to your passion and helping you bring your best self to the classroom. My goal is help you connect with your students and bring the content to life. Students need to understand that respect is a two-way street, everyone has the capability of giving out the respect, it's just a matter of earning it. We are a team and it is crucial we all, including the students, are on the same team. (CLE artifact, April 5, 2022)

They discussed love for the profession throughout the debrief, an important attribute for participation. The desire to become a peer coach and to work with your peers to co-constructively grow in instructional practice requires a love for the profession of teaching. Due to the love of the profession, the IST members wanted to see their peers increase and support their use of inquiry-based instructional practices and build relationships with their students because they want to see the profession grow.

Positive Outlook

In the chalk talk artifact, the IST wrote their desire to offer their peers advice to lead them “into a good place.” This positive outlook was important when developing a peer coaching program to support and improve the instructional practices of our teachers. Their positive outlooks and approaches were fundamental to sharing their varied work experiences and knowledge around various instructional strategies with their peers while maintaining a positive relationship. The IST shared leadership stories during the CLE and a common thread between the team’s stories. Teacher C summarized the team’s story: “People have made huge differences in all our experiences and in all our lives. The experiences we have had, whether positive or

negative, have made us realize what kind of classroom teacher or leader we want to be” (CLE artifact, April 5, 2022). During the debrief portion of the chalk talk protocol, they discussed that they wanted to ensure the teachers at Woodland Park Middle School had a positive experience with them as a peer coaches. They each contributed their leadership growth to an individual who pushed them along the way to take the next step, which reflected in the IST’s journey lines.

During the analysis of the IST’s journey lines, each member has served as a student leader in some capacity, whether in Student Council, athletics, or the performing arts. During the member check, Teacher A clarified that these roles as student leaders were important in developing her identity as a leader; however, the most important was having someone push them along the way. For example, Teacher C stated, “Many of us have had people push us along the way to achieve higher goals and have made us feel important (CLE artifact, April 5, 2022).

Knowledge of Varied Instructional Strategies

The IST expressed that they had instructional knowledge to share with their peers. Teacher C wrote about knowledge of instructional strategies as a “toolbox’ during their elevator speech.

A peer coach is a peer that is there to help you in any way. I am here to share my toolbox with you if you would like or to observe and help with any students or technology or lesson planning or new ideas. I am not here to judge or criticize. I am here to help ensure all our growth since I will learn from you too. I have been teaching for over 15 years and have worked in all subjects and grade levels. I enjoy working with students that have behaviors or are underachieving. If I can help in any way, I am here to support you.

(CLE artifact, April 5, 2022)

Teacher D shared that their many educational experiences were assets to the peer coaching process. During the Chalk Talk debrief, she stated, “Working at about every grade level...I’ve about seen and done it all. I’ve had to adjust lessons and learn many different strategies” (CLE artifact, April 5, 2022). She expanded on this during their elevator speeches as well:

As a peer coach, my goal is to help you grow as an educator. Let’s celebrate your successes and dig into the areas you want to improve. I bring to this observation my experience, I have taught K, 2, 4, 6, 7, 8 Math as well as media coordinator and DLT (Digital Lead Teacher). I have had the honor of working with amazing educators. (CLE artifact, April 5, 2022)

During the analysis phase of the Pre-Cycle, calibrating the attributes of a peer coach among the IST members became an important aspect of developing a peer coaching program to increase the use of inquiry-based instructional practices at our school. The IST then shared a collective vision that they needed to share a love for the teaching profession by connecting their peers to their ‘why’ and embracing what makes them unique as a teacher. They agreed that their approach and feedback needed to maintain a positive outlook and focused on growth for both them and their peer. The final attribute of a peer coach is knowledge of varied instructional strategies. This is important to the PAR so that the IST can assist their peers in selecting the appropriate strategy based on the content and goal of the lesson. The second emergent category revealed the importance of learning to observe.

Learning to Observe

To build a successful peer coaching program to support and improve inquiry-based instructional practices in our classrooms, we needed to understand the IST’s knowledge, skills,

and dispositions in inquiry-based instructional practices and observing. During the PAR Pre-Cycle, we explored each IST's identity as an observer, and after coding the artifacts, learning to observe emerged as a critical factor that would influence the PAR.

To better understand the IST's disposition and their identities as an observer, I asked, "How did you learn to observe?" (see Figure 10). The IST would be observing their peers to increase and support inquiry-based instructional strategies in the peer coaching program and needed to design and implement an observation process during PAR Cycle One. Thus, understanding how the IST members had learned to observe and how their identity as an observer was shaped guided how they might interact with other teachers. Their experiences provided through modeling the observation and post-observation conversation process molded their identities. As they discussed the processes, they recognized the importance of growth and collaboration. After analyzing the data in the Pre-Cycle, three areas related to observation were important to IST members: how to observe or guidance of observational practices, natural learning, and identity of observer.

Guidance on Observational Practices

The IST members had not had formal training on how to observe their peers but relied on their experiences of being observed and their insights gained by watching past administrators conduct observations throughout their educational careers. The IST talked about guidance on observational practices throughout the PAR Pre-Cycle; I noted these occurrences when the IST talked about training, rubrics, and learning to observe "by doing." One IST member expressed that they generally learned to observe through performing arts by attending dance class. This teacher states:

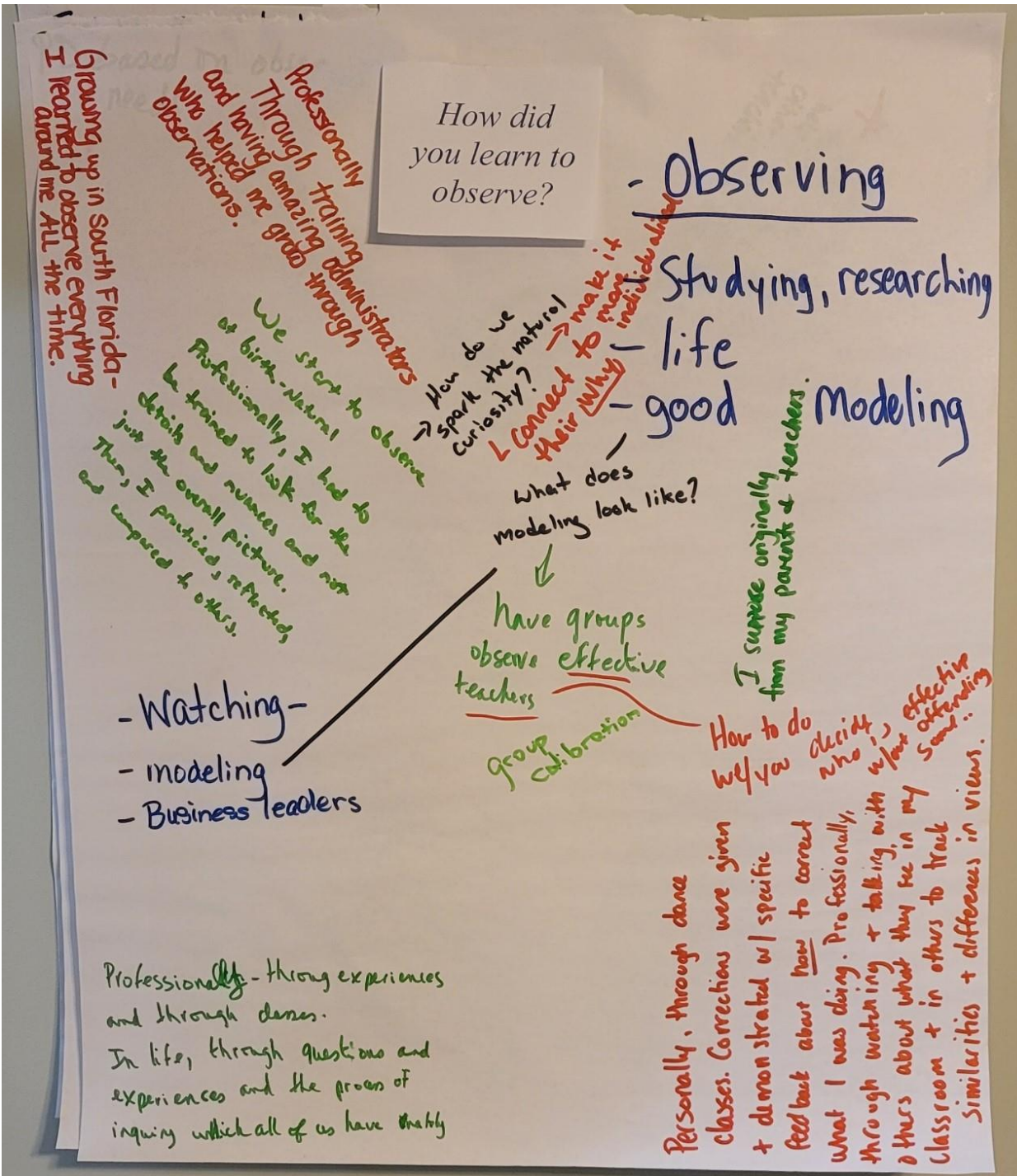


Figure 10. Artifact from chalk talk: How did you learn to observe?

Personally, through dance class. Corrections were given and demonstrated with specific feedback about *how* to correct what I was doing. Professionally, through watching and talking with others about what they see in my classroom and in others to track similarities and differences in views. (Teacher A, CLE artifact, April 5, 2022)

This statement supports how teachers need intentional experiences that provide them opportunities to learn how to observe their peers in implementing inquiry-based instructional practices. Furthermore, Teacher F stated that, “I feel comfortable going into a colleague’s classroom only because I had to evaluate employees when I worked for the trucking company...I have not been told what to look for here at school...just go do it” (CLE artifact, April 5, 2022).

Natural Learning and Curiosity

To the IST members, natural learning meant the ways they were naturally curious and that curiosity and disposition toward wanting to learn had extended into their professional careers. One IST member opened the conversation to natural learning by writing “We start to observe at birth – natural” (Teacher A, April 5, 2022). This response to the question sparked additional comments relating to how we learn in a natural sense. In the second rotation, another IST member wrote about the need to learn to observe in a natural setting when she wrote “Growing up in south Florida – I learned to observe everything around me ALL the time” (Teacher A, CLE artifact, April 5, 2022).

To dig deeper into the IST’s understanding of natural learning, I wrote a clarifying question on the chart paper, “How do we spark the natural curiosity?” The response from one IST member was “connect to their *why*” and “make it more individualized.” As we begin to design and implement a peer coaching program to increase the use of inquiry-based instructional practices, we need to return to their deeper understanding of natural learning.

Identity as Observer

The IST revealed that learning to observe is necessary to build their identity as observers. I found that the IST talked about their how their identities as observers were built during the CLE. The IST relies on their experiences of being observed and their personal journey to improve their practice by comparing their actions to those of their peers to formulate their identity as observer. Teacher A explained this as a natural observation in which we intentionally watch what is going around us out of personal curiosity and desire to improve; “Professionally, I had to be trained to look for the details and nuances and not just the overall picture. Then, I practiced, reflected, and compared to others” (CLE artifact, April 5, 2022).

I identified that the observational experiences from which the IST had learned from were not all positive. Many members have had negative experiences that support the need for intentional modeling to shift our identities as observers from evaluative to growth before entering a peer space. For example, one teacher shared that: “I have had formal, informal, 15-minute walkthroughs, etc. Some of those were great and were about growth and improving knowledge, techniques, etc. Some of these were horrendous and made more of an opinion session” (Teacher C, Personal conversation, April 5, 2022). I was concerned at this point about teachers relying only on the negative observational experiences to build their identities as observers. The ability of the IST members to develop a peer coaching program would not be effective in supporting and improving the inquiry-based instructional practices of middle school teachers unless they have some positive input to their observational practices.

Peer Coaching Goals

In addressing a third emergent category, peer coaching goals, the IST began sharing their goals and desired results of becoming peer coaches. These goals were to (1) focus on growth for

all, (2) provide feedback, and (3) help educators connect to their passion. The IST members formulated their hopes and dreams for the peer coaching program; they wanted to create a culture of observations in which educators can all grow through sharing feedback and connecting actions to individual strengths and passions.

Growth for All

The IST repeatedly shared their desire to learn and grow throughout the experience and viewed the peer coaching experiences as a co-constructive opportunity to learn from their peers. They wanted to hold space for others to improve (Drago-Severson, 2012) and they believed that the sensemaking and sense giving that can happen in collaborative spaces would magnify their goals to work with teachers (Norris, 2022). As they talked about growth for all, they considered learning as reciprocal; they would learn and the teachers they coached would learn. Growth holds significance to the PAR as it provides insight to why the IST members are interested in peer coaching. Each members wanted to improve her practices through the experience as well as their peers. During Teacher F's elevator speech, she shared that:

I am here to observe your teaching style and to learn about you and what you do in your classroom. I would love to see the unique things you do that make you the teacher you are. I am not here to judge or criticize you or what you do. My role is solely as support and to help me grow and learn as well as see if there is any areas of your teaching in which I may offer you suggestions to make you even stronger of a teacher. This experience is not intended to only help you or myself but can help everyone in our school. (CLE artifact, April 5, 2022)

Teacher A repeatedly stated that the goal as a peer coach was to learn from peers during the observation and support them in their educational growth. By seeing the peer coaching

program as a strategy to improve teaching and learning at Woodland Park Middle School, Teacher C echoed this sentiment during an elevator speech:

A peer coach is a peer that is there to help you in any way. I am here to share my toolbox with you if you would like or to observe and help with any students or technology or lesson planning, or new ideas. I am not here to judge or criticize. I am here to help ensure all our growth since I will learn from you too. (April 5, 2022)

The IST was clear that their goal in creating the peer coaching program was to learn from their peers while improving their ability to grow as educators by utilizing inquiry-based instructional practices. During the CLE, the IST talked about the observation process, their experiences, and the barriers that prevent educators from embracing a culture of observation. One IST member wrote that a barrier to being observed was that they feel like they need to be perfect or they will lose their job and that the anxiety tied to them hinder their openness to peer observations. Because the IST members had had negative experiences through evaluative observations, their goals were to ensure growth using positive and constructive feedback.

Provide Feedback

Through our conversations, Teacher A shared that in her first year of teaching, the principal copied and pasted their observation from another teacher and was disengaged during their time in the classroom. When they did ask for feedback, she were told, “don’t change a thing.” When I asked Teacher A why this experience is essential to building a peer coaching program, they responded that it reminded them of the importance of providing positive feedback while remaining honest and constructive. They stated, “If the observations are meaningless, then what is the point?” Provide feedback appeared in the PAR Pre-Cycle data analysis seven separate times and was discussed extensively during the chalk talk debrief.

An IST member writes about the feedback they wanted to provide during their peer coaching cycles. The IST members continued their written conversation about feedback in Figure 11 during the chalk talk protocol responding to this question: *How can observations be made more effective?* One IST member wrote specific feedback while another member responded with constructive feedback and honesty. One IST member provided an explanation on why feedback should be honest when they wrote, “people see things I don’t, if they are *honest*, I grow. If they just try to be *nice*, I don’t” (CLE artifact, April 5, 2022).

The IST’s conversation about feedback was impactful and when writing my reflective memo on April 5, 2022, I noted that “...they all had experiences where observations did not provide any feedback.” When the IST builds and begins implementing a peer coaching program, we will need to develop a protocol that ensures feedback is given to the teacher in a timely manner who is receiving peer coaching.

Connecting to Passion

In analyzing the PAR Pre-Cycle data “connecting to passion,” (n=8) was a critical factor that I wanted to consider as we progressed. When coding their elevator speeches, every IST member centered on growing together, providing positive feedback, and embracing the uniqueness of the individual. Teacher F wrote, “I would love to see the unique things you do that make you the teacher you are” (CLE artifact, April 5, 2022). Teacher A shared the desire to honor the individual and believed that the goal as a peer coach was to connect their peer’s teaching to their passion and their ‘why.’ She stated, “My role is in supporting you, connecting you to your passion and helping you bring your best self to the classroom. My goal is to help you connect with your students and bring the content to life” (CLE artifact, April 5, 2022). The IST focused on connecting their peers to their ‘why’ and to keep them focused on why they entered

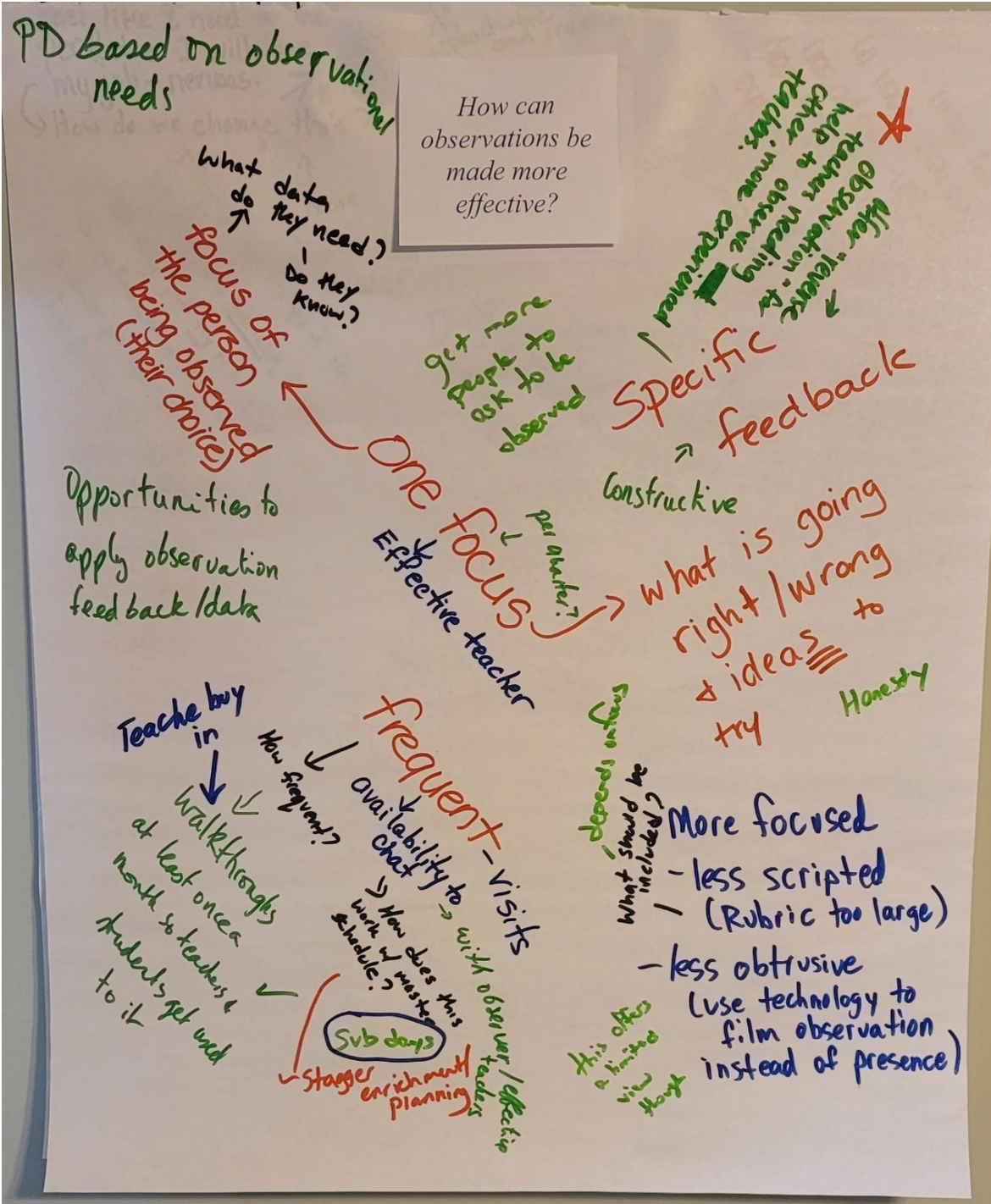


Figure 11. Artifact from chalk talk: How can observations be made more effective?

the field of education. One IST member wrote that this is accomplished by having “Heart” and demonstrating this by “showing passion.” Teacher A shared, “Teachers that know who they are and teach with passion, will bring their content to life...those are the teachers I remember” (CLE artifact, April 5, 2022).

The PAR Pre-Cycle revealed three emergent categories that guided my reflection and influenced the planning for PAR Cycle One in the Fall 2022. For the IST to successfully build and implement a peer coaching program to increase and support inquiry-based instructional practices in our middle school classrooms, the Pre-Cycle evidence guided our next cycle. Understanding the attributes that build a successful peer coach influenced the approach, mindset, and actions the IST took when working with their peers. The Pre-Cycle revealed the need for me to provide experiences with observations that focus on growth and collaboration followed by time to reflect on the experience and process prior to implementation. Next, I describe reflections on the PAR Pre-Cycle, the impact on leadership and PAR Cycle One planning.

Reflection and Planning

As our craft and life develop toward greater clarity and deeper individuation, we begin to have an eye for spotting these essential accidents. We can use the mistakes we make, the accidents of fate, and even weaknesses in our own makeup that can be turned to advantage.

Nachmanovitch (1990, p. 89)

The PAR Pre-Cycle revealed many assets and challenges in designing and implementing a peer coaching program that supports and improves inquiry-based instructional practices of middle school teachers. As I reflected on these assets and challenges, I challenged myself as a leader to take action steps needed during PAR Cycle One that would reflect what we learned in the Pre-Cycle.

Reflection on Leadership

The PAR Pre-Cycle revealed that the IST's members had identities as observers that was a product of a culture of evaluative observation. When reviewing the data collected during the Pre-Cycle, the IST discussed observations through the eyes of evaluation and watched past administrators conduct regimented observations prescribed by the state. I reflected on my practices of observations in my current role and I, too, conduct observations through an evaluative lens. We would need to shift that paradigm if we were to be successful in peer coaching.

During a chalk talk, an IST member wrote 'quiet leadership' as something they wanted to bring to their peers. When I wrote a clarifying question on the chart paper on what quiet leadership looked like, the response was "you." This idea of quiet leadership is intriguing, and I want to dig deeper into what the IST means by it. When I wrote my reflective memo on April 5, 2022, following the CLE, I explored the possibility of quiet leadership being connected to my understanding of symphonic leadership. In my memo, I wrote:

One comment that caught my attention was "quiet leadership" I wrote the question "what does this look like?" and on the second rotation, they answered with "You!" This notion of quiet leadership could be linked to symphonic leadership, where the goal is to provide opportunities and spaces for individuals to be heard while orchestrating movement and building a collective story? (Reflective Memo, April 19, 2022)

Suppose quiet leadership is what the IST wants to emulate throughout the peer coaching process. In that case, I need to create a culture of risk-taking in which mistakes are celebrated with praise and constructive feedback on how to grow, a culture in which there isn't an end to learning, and

a culture in which we embrace who we are, the experiences that shaped us, and bring those experiences and learning into our classrooms to teach our students.

Ben Zander states, “The new leader’s job is to create a powerful vision that allows room for things to occur that are as yet undreamed of” (LaBarre, 1998, p. 110). As I planned for PAR Cycle One, I needed to co-construct the peer coaching program's vision, structure, and architecture so that the IST can enact their professed beliefs to achieve their goals as shared during the Pre-Cycle.

Planning for PAR Cycle One

In the PAR Pre-Cycle, I gained insight into the knowledge, deposition, and goals the IST members wanted to accomplish through a peer coaching program. As I moved into PAR Cycle One, the IST began designing the peer coaching program. When planning the action steps for the PAR, I was drawn to the symphonic planning (see Figure 12) I used as a middle school band director. When planning a performance for middle school performers, I first had to understand the strengths and weaknesses of those involved in the ensemble and, with that knowledge, select the appropriate selections that I would use to (a) challenge the musicians to become better at their practice, (b) highlight the strengths within the ensemble, and (c) ensure a successful performance for all involved. In Table 10, I provide the process; all components are necessary to ensure successful performances and that every participant is prepared.

While the IST designed the peer coaching program, the members were immersed in classroom observations focusing on collaboration and growth. I modeled how to conduct observations, collect verbatim notes, and how to hold effective conversations during the post-observation. The modeling of observations and effective conversations addressed my concern during the Pre-Cycle in which the IST’s identity as observers was built on evaluative purposes.

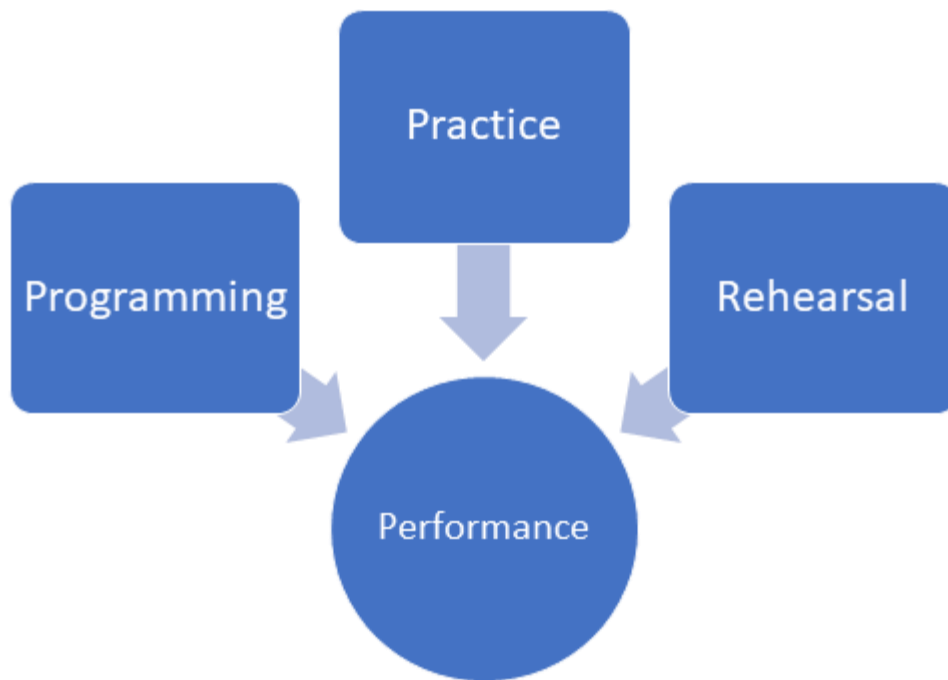


Figure 12. Visual representation of instrumental planning.

Table 10

Activities and Artifacts to Collect during PAR Cycle One

Symphonic Phase	Activity to Plan	Who	Artifacts to Collect	Timeframe
Programming	CLE IST CLE	WPMS Staff and IST	CLE Artifacts Reflective memos Meeting notes	August 2022
Practice	Modeling observations and coaching IST Meetings	IST	Observation notes Reflective memos Meeting notes Personal Narratives	September 2022
Rehearsal	IST Peer coaching practice IST Meetings	IST	Observation notes Reflective memos Meeting notes Personal Narratives	September 2022 - October 2022
Performance	Conduct a peer coaching cycle CLE	IST and Beginning Teachers	Observation notes Reflective memos CLE Artifacts	October 2022

The IST met to reflect on their experiences during the practice phase. These data provided insights about their identities as observers.

Once the IST has added observer through the lens of collaboration and growth to their identity, we moved into the rehearsal phase of planning. During rehearsal, musical ensembles complete a full performance without an audience to ensure every detail has been polished before a public performance. In the next phase, the IST members conducted observations and post conversations with each other, honing their skills before entering a peer's classroom.

After the rehearsal comes to the performance, in this phase, the IST began a peer coaching cycle with a beginning teacher at Woodland Park Middle School who has requested and shown interest in receiving peer coaching. The IST members conducted observations through the lens of collaboration and growth, followed by effective conversations with the beginning teachers to guide their next steps.

Conclusion

As I summarized the coding analysis, I determined the three emergent categories during the Pre-Cycle that guided my reflections on what I continued to do in PAR Cycle One and provided an overview of the activities and data collection processes for PAR Cycle One. The PAR Pre-Cycle produced codes that I analyzed to create the three emergent categories. During the Pre-Cycle, the term quiet leadership was named as an attribute they wanted to emulate as they became peer coaches. During PAR Cycle One, I wanted to provide the IST an opportunity to expand on quiet leadership and why this form of leadership appealed to them.

The IST's observer identity led to reorganizing how I plan the activities in PAR Cycle One. As described earlier in the chapter, I approached learning how to observe through the lens of my experience as a middle school band director. The sequence of symphonic planning

provided me and the IST with the vision, structure, and architecture to become the peer coaches they desire to be. This sequence of symphonic planning is the architecture that guided the IST's learning and growth as observers before entering a peer's classroom. The process of modeling and immersing the IST in the process allowed them to see the small details that made them successful.

CHAPTER 5: EMERGENT THEMES AND FINDINGS

Six months before the spring concert, I sat in my office studying musical score after musical score to build a program that highlighted strong performers and provided younger students the support they needed to grow. At the end of my score study, I decided on four pieces of music for our Spring program that were inspired by poetry to connect their learning to the ELA standards being taught in the seventh-grade classrooms. During my score study, I created a unit plan to address possible student misconceptions, new skills, historical context, and a timeline to teach the piece of music to the band. In the final step before a piece of music is placed on the concert program, the band participates in sightreading. In this step, students play each piece. The goal is to make it through the entire piece; if students make it to the end, I add it to the program. If not, I must reflect on if the piece is too difficult and should be removed or if another piece should be added to provide students the skills and knowledge to perform the original selection.

In the PAR Pre-Cycle, the IST began the process of building a peer coaching program that would support and increase the use of inquiry-based instruction (IBI). The IST determined that structures needed to be created to support the PAR, the symphonic planning model resonated with the IST as discussed in Chapter 3. In this chapter, I discuss the findings, identify the implications, and reflect on my leadership after completing two cycles of inquiry.

To fully engage teachers in the process of peer coaching to build and implement inquiry-based instruction (IBI), we engaged in two successive cycles of inquiry to examine how the teachers as peer coaches in the CPR group and the principal collaborated and worked with the entire school. In this chapter, I detail the evidence from the two cycles of inquiry, which correspond to the musical stages of symphonic planning. In PAR Cycle One, we engaged in

programming, sightreading, and practice, and certainly we continued to engage in these practices. However, in PAR Cycle Two, we rehearsed and “performed” in the sense that we fully implemented peer coaching practices. In each of the two cycles, I determined emergent themes to inform the two findings of the study: Teachers need to work in a collaborative culture that supports their learning, and the principal needs to establish and nurture dynamic and flexible systems and structures that support their experimentation.

PAR Cycle One Process (Programming, Sightreading, Practice)

I used the data collected during the PAR Pre-Cycle to create action steps for PAR Cycle One to develop a planning cycle that mirrors the work of an instrumental music teacher: programming, sightreading, and initial practice. In this section, I describe the action steps the IST completed during PAR Cycle One (see Table 11) through each step of the instrumental planning cycle. In PAR Cycle One, the IST completed the programming, and sightreading, and entered the practice phase of the symphonic planning process.

Programming

To develop a peer coaching program that supported the use of inquiry-based instructional strategies with middle school teachers, as the instructional leader, I co-developed a vision with the ILT that could provide systematic, but flexible, structures for staff to support peers through peer coaching and reinforce a culture that empowered teachers and students to take risks and explore the curriculum through active inquiry-based instruction (IBI). As teachers shared the vision with students, we developed coherence of vision across the school. The IST members and I planned a community learning exchange (CLE) for the opening staff meeting for the 2022-2023 school year. I collected data on the staff’s understanding of IBI strategies and to connect the school’s mission and vision to their past experiences and strengths as a teacher.

Table 11

Activities: PAR Cycle One

	WEEK 1 Aug 22-26	WEEK 2 Aug 29- Sep 2	WEEK 3 Sep 5-9	WEEK 4 Sep 12-16	WEEK 5 Sep 19-23	WEEK 6 Sep 26-30	WEEK 7 Oct 3-7	WEEK 8 Oct 10-14	WEEK 9 Oct 17-21	WEEK 10 Oct 24-28
Reflective Memos (n=7)	X	x		X		x		x	x	x
Meetings with IST (n=4)		x				x		x		x
Learning Exchange (n=1)	X									
Observations for IST (n=3)			x	X	X					
Post Observation Conference for IST (n=4)			x	X	X	x				
IST Reflections (n=3)		x						x		x
Modeling Lesson Planning for Staff In-service Professional Learning (n=2)								x		x

The WPMS staff identified their individual gifts through the personal narrative, connected to the school's new mission and vision, explored how we can empower students through POWER (Purpose, Ownership, Wonder, Effort, and Reflect), and provided the IST with their understanding of inquiry through a chalk talk around the six themes of inquiry (Cook et al., 2016). The IST used these data to plan in-service professional learning opportunities based on staff needs and strengths. During the IST meeting, I introduced the team members to the observation tools that we could use to collect evidence on questioning and equitable dialogue. The September IST meeting closed with setting the timeline for implementation of the first round of observations in which I model the peer coaching cycle with IST members.

Sight Reading

In the Pre-Cycle, the IST explored the symphonic planning process; however, we realized that we had forgotten a critical component of the symphonic planning process -- sightreading. Ensembles complete a sightreading session to ensure that the program selected meets the need of the ensemble and decide on the adjustments that are needed before practicing the musical selections. In this phase, the IST members signed up for a model peer coaching cycle using the question observation tool. IST members met with me for a pre-conference to discuss the lesson that I would be observing. In the pre-conference, I modeled the process of pairing inquiry-based instructional strategies with the desired outcome of the learning activity.

I then observed their lesson using the question observation tool. I shared their observational data with each person before our post-conference. IST members shared that they did not realize how much planning the inquiry-based instructional strategies they selected took and felt that our staff was not equipped with the background knowledge to plan higher-order thinking questions and inquiry-based instructional strategies successfully. This realization caused

the IST to revisit the programming phase of the process. During the October IST meeting, we decided that to meet the needs of our teachers, they would coach their peers through planning inquiry-based instructional strategies and higher-order thinking questions. This process corresponds to the probe design phase of design thinking, in which the trial and error period is useful to a small group (National Equity Project, 2023). By using the processes and task analysis, the IST members realized that planning was a critical part of the entire process. In order to fully ensure teacher success, planning was important, and we needed to slow down to address planning instead of rush into observations.

Practice and Modeling

To model the planning of inquiry-based instructional practices, the IST worked with me in developing the agenda for the October 19, 2022, early release professional development (ERPD). When developing the agenda, I modeled the lesson planning process by beginning with the desired outcome of equipping teachers with the knowledge to plan and execute inquiry-based instructional strategies in their classrooms and co-construct new understandings through dialogue with their peers. I shared the five axioms of community learning exchanges with the IST and asked them to use the protocol, *see it, name it*, throughout the planning process. The IST began to name each axiom as we decided on agenda items and protocols.

The focus of the October 19, 2022, in-service professional learning was for staff to connect the school's mission to the AVID theme of POWER (Purpose, Ownership, Wonder, Effort, Reflect), and how inquiry can awaken the adolescent learner. I presented the IST with three personal narrative prompts and asked them to select the prompt that they believed would spark discourse about inquiry and co-constructed learning with their peers. The IST discussed the possible conversations that could have occurred with each prompt and decided on:

We don't receive messages that encourage us to value, elevate, and idealize practices of cooperation, collaboration, or co-intelligent creation. The messaging that we receive is designed to reinforce the conquest mind-set where the primary goal is to win or be on top. (Mitchell, 2018, p. 115)

In modeling the planning of the in-service professional learning day, I modeled how to select community learning exchange protocols and inquiry-based instructional strategies to ensure that participants engage in co-constructed and meaningful professional learning.

The IST reflected on the planning process of the in-service professional learning in a reflective memo and began listing elements of a successful lesson plan to develop a model lesson plan template. In the process of developing a model lesson plan template, they made the distinction between a learning activity and an instructional strategy; they noted that their peers need coaching on how to identify the desired outcome of the lesson based on what their content standard was requiring the students to do. The activities completed in the PAR Cycle One led to the revised instrumental planning process as shown in Figure 13 in which sightreading was added to provide opportunities for revision and adjustments to the musical program before musicians began to practice the musical selections. As a result of the activities and data analysis, two emergent themes for PAR Cycle One emerged.

Emergent Themes

Two emergent themes were based on the data analysis of the codes and categories in PAR Cycle One. The themes directly relate to developing a climate that encourages and supports teachers in learning and implementing inquiry-based strategies: (1) setting the stage for inquiry-based instruction, and (2) principal moves. In particular, I note that additional categories resulted from the data analysis, but, in this chapter, I focus on the key emergent themes. Then I describe

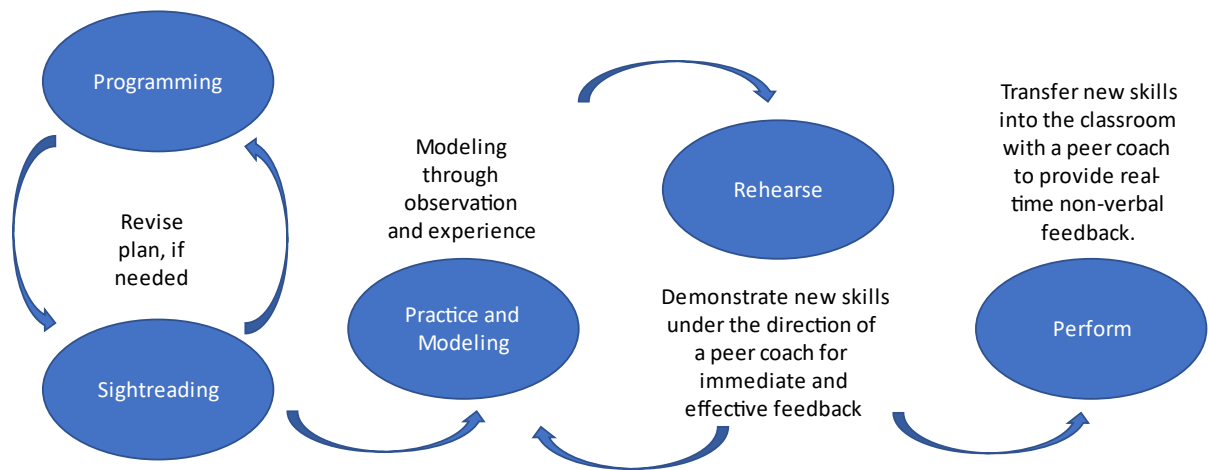


Figure 13. Revised visual representation of symphonic planning.

each emergent theme and the categories and codes I analyzed to generate the themes. I represent the emerging themes and categories and frequency of each category in Table 12.

Setting the Stage for IBI

The IST discovered that they were not ready to coach inquiry-based instructional strategies during the PAR sight-reading phase. One IST member said, “I feel that coaching teachers through the planning of inquiry-based instructional strategies will benefit them by providing them the necessary structure to assist in both instructional efficiency and classroom management” (IST Meeting, October 16, 2022). He described the coaching cycle as jumping in the deep end of a pool and feared beginning teachers might be overwhelmed to approach peer coaching through observation cycles.

The IST determined that the best course of action was to provide peer coaching through the planning of inquiry-based instructions. Teacher C shared a vision for peer coaching during the planning:

I feel that coaching teachers through the planning of inquiry-based instructional strategies will benefit them by providing them the necessary structure to assist in both instructional efficiency and classroom management. Through proper and appropriate planning teachers are able to choose instructional materials that are engaging, and purpose driven and not merely time fillers. (IST Meeting, October 16, 2022)

Thus, we proceed to design how we would model the planning phase.

Modeling the Planning of Inquiry-Based Strategies

As the principal, I needed model inquiry-based instruction during every meeting and in-service professional development for teachers so they can experience and explore inquiry-based

Table 12

Emerging Themes and Categories

Emerging Themes	Categories	Frequency of Category
Setting the Stage for IBI (n=75)	Co-Constructed Learning	(n=16) 15%
	Breaking Down Barriers	(n=24) 22%
	Modeling IBS	(n=35) 33%
Principal Moves (n=32)	Leadership Actions	(n=21) 20%
	Systems and Structures	(n=11) 10%

instruction. During the IST meetings, the team adopted the CLE axioms as the norms for in-service professional learning (Guajardo et al., 2016):

- Learning and leadership are dynamic social processes.
- Conversations are critical and central pedagogical processes.
- The people closest to the issues are best situated to discover answers to local concerns.
- Crossing boundaries enriches the development and educational process.
- Hope and change are built on assets and dreams of locals and their communities.

The IST set a goal to develop an inquiry-based agenda for in-service professional learning that allowed our teachers to co-construct their learning through discourse for 70% of the time allotted. Teacher F said, “We must model being a facilitator and not lecturers, but I am not entirely sure how to do that!” (IST Meeting, October 26, 2022) When modeling IBI, the IST began to make connections on selecting the best inquiry-based instructional strategy. Teacher F explains, “The best strategy to choose really begins with knowing the base of knowledge of our teachers. To know their strengths and weaknesses is essential to choosing the right strategy to help foster teacher growth and progress. (IST Meeting, October 26, 2022). With this new understanding of planning inquiry-based instructional strategies, we focused on teachers’ in-service professional learning. The IST began shifting the agendas of their grade level meetings, professional learning communities, and parent conferences to include the five axioms of community learning exchanges (Guajardo et al., 2016). As the principal, I converted all staff meetings into CLEs to build relational trust among staff; by providing opportunities for staff to build trust with their peers through personal narratives and various CLE protocols and adopting the CLE axioms as our meeting norms, we began breaking down barriers.

Breaking Down Barriers

During the sight-reading phase, the IST decided that we must first address teachers' challenges to support and improve inquiry-based instructional practices. Based on the data, breaking down barriers emerged as a crucial element of increasing and supporting teachers in using inquiry-based instructional strategies. The category (n=18 or 22% of evidence) set the stage for inquiry-based instruction during PAR Cycle One.

The IST agreed that teachers would increase their use of inquiry-based instructional (IBI) strategies if we addressed the barrier of teachers having a lack of knowledge on inquiry-based instructional strategies and knowing how to select and plan the inquiry-based instructional strategy that would meet the needs of their students. Teacher D shared that beginning teachers (BT with fewer than five years of experience) comprised 40% of our teaching staff; they lacked knowledge on inquiry-based instructional strategies. Of the sixteen BTs, only two entered teaching through a traditional pathway, meaning 88% of BTs became teachers through an alternative licensure program. Teacher D shared, "I feel that we are living week to week and not looking at the long-range and that teachers are falling into direct instruction because it is easier to plan" Teacher E continued, "We have so many babies that missed out on what we got on how to lesson plan. They just seem so lost." Teacher F added, "My mentees struggle in writing actual lesson plans...they are writing agendas and calling them lesson plans" (IST Meeting Notes, October 16, 2023). The IST decided that peer coaching our teachers through the planning of inquiry-based instructional strategies would break down the barrier and provide guidance on selecting, planning, and facilitating the strategy in their classroom.

Co-Constructed Learning

Teachers need to experience inquiry-based instruction (IBI) in a safe environment to learn how to facilitate IBI in their classrooms, a vital step in any innovation process that we typically miss. During the CLE, for example, teachers expressed that IBI would “mess up the pacing guide” and that “it took too much time.” The IST analyzed the CLE data with the staff to create a peer coaching program that would ease teachers into planning inquiry-based instructional strategies. I modeled with the IST the planning process before our October in-service professional learning (ISPL) by co-constructing an agenda during our IST meeting.

The IST shared that the collaborative planning process provided clarity and purpose when selecting an IBI strategy to fit the desired learning target. The IST built agendas that included CLE protocols, inquiry-based instructional strategies, and handouts that provided detailed directions on how to plan and facilitate each protocol and strategy the IST modeled. Teacher B shared in an exit ticket that they “feel much more confident in guiding a peer in planning a lesson utilizing inquiry-based instructional strategies after today’s meeting” (CLE artifact, October 19, 2022).

As the IST engaged in experiences of co-constructed learning during PAR Cycle One, their experiences provided them insight on the next steps to build a peer coaching program. They experienced professional learning differently in our work, and they used that knowledge to support teachers in planning and implementing inquiry-based instructional strategies in their classrooms. Equally important to the process was what action steps I took as the school leader (see Figure 14).

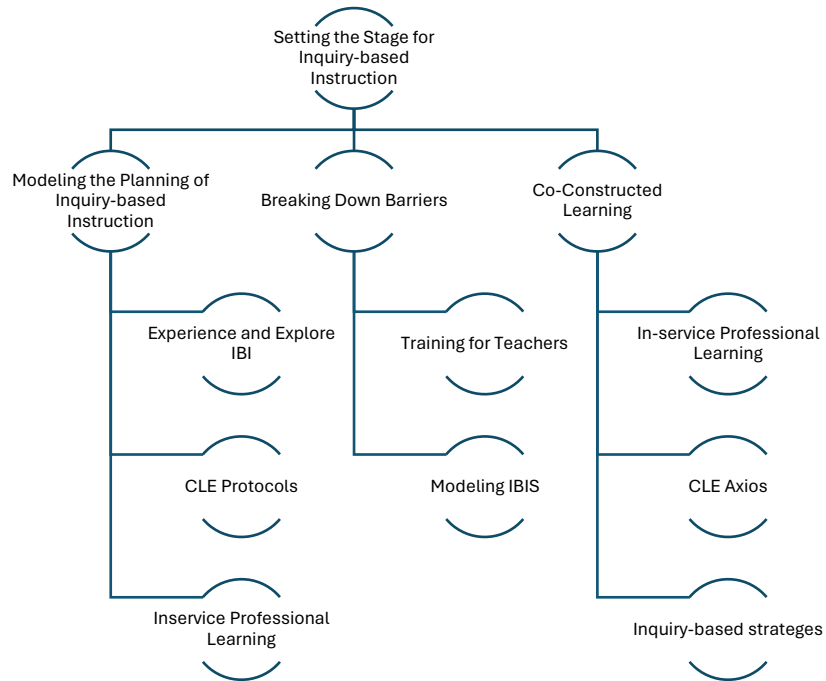


Figure 14. Visual representation of the emerging theme, setting the stage for IBI.

Principal Moves

As principal, I worked with the IST to build a culture conducive to inquiry-based instruction and where teachers and students alike feel comfortable with taking risks when engaging in academic discourse. In analyzing the data collected during PAR Cycle One, two principal moves (n=31 or 30%) included: (1) leadership actions -- maintaining a teacher identity, actively participating in professional learning, and communicating a vision; and (2) systems and structures -- scheduling, expectations, and teacher leader capacity-building (see Figure 15).

Leadership Actions

A principal must remain connected to the classroom and a teacher identity or mindset and be intentional about actions. Leadership actions consistently were present in the analysis of reflective memos, CLE artifacts, and IST meeting notes. During the CLE, I engaged in academic discourse with teachers and actively participated in the learning process. One teacher expressed her appreciation that I “became one of them” (Field notes, August 23, 2022). A twenty-three year veteran shared the same sentiment and shared during our closing circle that she has “never seen admin join in during PD (professional development)” (Field notes, August 23, 2022). These statements resonated with me as I wrote reflective memos. On August 23, 2022, I wrote:

I believe that admin have to join teachers in their ISPL. We learn from each other and through the conversations that are had around the room. During my time with the table, I learned more about their experiences as teachers, and how education is different around the country. It also provided me with time to share my experiences as a teacher.

Administrators often neglect or forget how it feels to be a teacher in a classroom or how it feels to be subjected to sit and get ISPL.

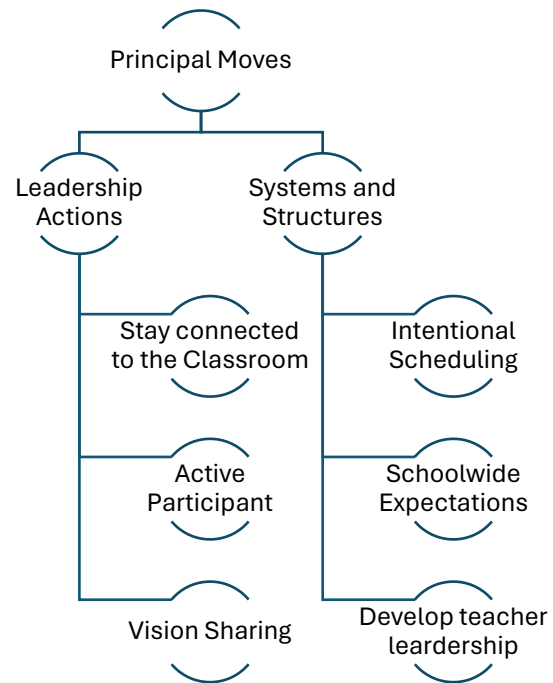


Figure 15. Visual representation of emergent theme principal moves.

By sharing a coherent vision not only did I wish for coherence, I “communicated a compelling presence and a steadfast belief in the power of the possible” (Tredway et al., 2015, p. 10). To establish a collegial professional imprint, I had to communicate and model core values, vision, and beliefs. In doing so, I aligned the practices of the school staff to the vision and worked with the school staff to work in concert with the vision as our focus and guiding light. I assumed a position of colleague at many meetings. Thus, principal moves were critical for momentum and coherence.

Systems and Structures

The IST developed systems and structures throughout every facet of the school and placed ownership on the staff and the students that included intentional scheduling, schoolwide expectations – particularly for behavior, and structures for teacher leadership, especially the IST members. We communicated this with a vision statement focus on students by “Unleashing the Power of the Adolescent Learner” (see Figure 16). Teacher B tweeted after the second week of school regarding the reach of WPMS’s new mission and vision statement:

I have to shout out my principal @CarlCruthis for implementing a vision that is so deep that it reaches every area of student life, teacher life, & campus operations. Yet so tangible that anyone that hears it can pick it up and run with it! (#Power Tweet, August 30, 2022)

Another useful system included guiding IST to understand the five axioms of community learning exchanges when planning teacher-led in-service professional learning. The IST utilized the monthly staff meetings to provide the AVID (Advancement Via Individual Determination) team opportunities to engage in teacher leadership. The AVID site inquiry-based instructional strategies and abandoning the “sit and get” PowerPoint used in prior training.

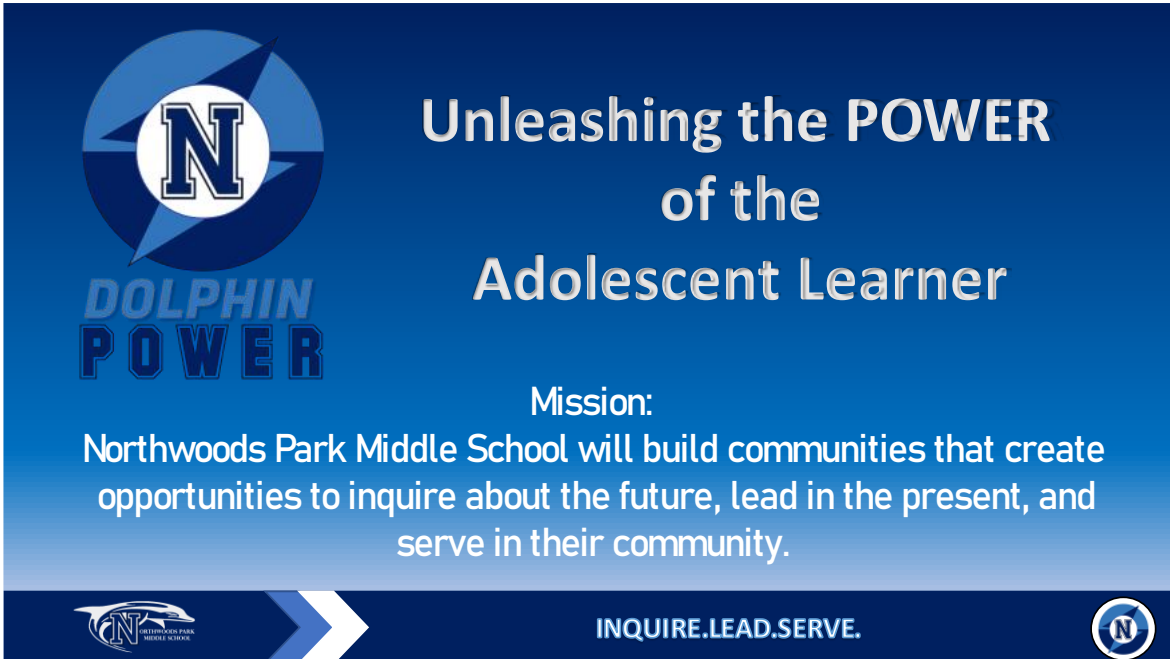


Figure 16. Mission and vision statement for WPMS.

In addition, the IST had to shift and adjust as the IST members and peer coaches as teachers were not ready to be observed using peer coach inquiry-based instructional practices in the classrooms. I found myself analyzing the culture of WPMS and the systems and structures that might be causing barriers to the IST's goal. During Summer 2022, I worked with Teacher B and Teacher E on building a new behavior matrix that would shift the culture of our school (see Figure 17). The matrix was built around "POWER" (purpose, ownership, wonder, effort, and reflect). Dolphin POWER was selected to empower teachers and students to take control of their education and our school. Using this focus, we shifted the conversations from a compliance-based stance to one of reflection. This was to remove the power struggle teachers had in the classroom that prevented academic discourse the previous year. The feedback new behavior matrix from teachers and students was positive, one teacher wrote:

Hearing the kids talk about what power is, why people want it, and then giving input on the acronym of the word power has been AHHHHHMAZING!!!! I heard a child today ask a teacher "What are you doing with your power?" (Personal conversation, September 2, 2022)

In addition, I built a master schedule that staggered schedules among grade levels so that teachers could visit classrooms throughout the day to be peer coaches and observe classroom practices. For example, Teacher E opened classroom doors for beginning teachers to observe model classrooms in classroom management and instruction. By providing teachers the structure to enter a peer's room was the first step I took to break down the educational silos and one-room schoolhouse mentality. Teacher E, the WPMS beginning teacher (BT) coordinator, set up classroom visits each month for our BT. These classroom visits did not require peer to collect

PBIS MATRIX

SCHOOL-WIDE POWER QUESTIONS



Settings	Outside	Arrival and Dismissal	Hallway	Classroom	Cafeteria	Restroom	Assemblies and Special Events
Purpose	Am I doing what my teacher brought us outside to do?	Am I moving where I should be going?	Am I being safe and helpful while in the hallway?	Am I prepared for learning with my materials, a positive attitude, and an open mind?	Am I eating my food in a calm and orderly fashion?	Am I completing my business quickly and quietly?	Am I an attentive listener and participating as requested?
Ownership	Did I bring in all materials and clean up after myself?	Am I where I belong and moving in an appropriate manner?	Am I going where I am supposed to quickly and calmly?	Did I complete all my work to the best of my ability and turn it in as directed?	Am I where I am supposed to be and eating my food properly?	Did I keep the restroom clean and act appropriately while in the restroom?	Was I on my best behavior and a good representative of my school and family?
Wonder	Did I leave no trace or better than when I arrived?	What can I/did I do for someone else today?	Did my actions interfere with anyone else's learning and/or safety?	How will this information help my future?	Was I respectful to the cafeteria staff and custodians?	Was I respectful of others including my fellow Dolphins and the custodians?	Did I learn something new or reinforce something I already knew?
Effort	Was I active in our assigned activity?	Did I follow procedures on my own without adult reminders?	Was my transition between classes done in an orderly manner?	Did I do all my work to the best of my ability and complete it on time?	Did I clean up my spot and represent my class in a positive manner?	Did I use the restroom quickly without any horseplay?	Was I responsible for my own behavior and attitude?
Reflect	Did I have fun while acting in a safe manner?	Did my actions interfere with anyone else's arrival or dismissal actions?	Was I respectful of others while moving through the hallway?	How could I do better or challenge myself to be better with my academics?	Did I behave as if my parents were sitting with me in a restaurant?	Was I as respectful as I would want others to be when I use the restroom?	If I was the presenter, would I have been pleased with my behavior?

Figure 17. Dolphin POWER behavior matrix

data; the purpose was to get teachers comfortable with sharing their practice with their peers. Each month, the BT would share out during the personal narrative portion of their meeting.

As indicated by PAR Cycle One, working with the IST, we set the stage for inquiry-based instruction for the entire school through schoolwide community learning exchanges and an emphasis on the planning phase. We learned from our experience together to start IBI, that going slow to go fast was an adage we needed to employ as a guard rail for proceeding. As is often the case with new “programs” or “projects,” we do not take the time to fully understand the necessary steps for teacher change. As a result of PAR Cycle One, continuous reflection on my leadership and its effects on the IST was critical. Then I outline action steps that the IST took during PAR Cycle Two to successfully build a peer coaching program to support and increase inquiry-based instructional practices in middle school classrooms.

The structures and systems had been set for peer coaching inquiry-based instructional strategies. The IST has completed a sight-reading of the program, made the necessary adjustments, and practiced planning inquiry-based instruction for in-service professional learning.

Leadership Reflection and Action Steps for PAR Cycle Two

The leaders of the future are people who inspire enthusiasm in others, pioneer the development and sharing of a challenging vision. A good conductor deems himself/herself as the servant of the music played not as a boss. S/he might not know how to play the musical instruments played in his/her orchestra; however, s/he has to dictate which one should be played louder or softer in certain instances during a performance. S/he takes his authority to dictate the pace of performance from his/her knowledge and communication skills. A good conductor does not only consider the rehearsals or the stage performance but also the continuous development of each of the artists in his/her orchestra. (Zel & Onay, 2012, p. 131)

PAR Cycle One provided insight into the knowledge, deposition, and revised goals the IST wants to accomplish through the peer coaching program. As a result, in PAR Cycle Two, the IST began implementing a peer coaching program to support and increase the use of inquiry-

based instructional practices by working with teachers during the lesson planning phase. PAR Cycle Two focused on the Rehearsal and Performance phase in the symphonic planning cycle.

In the beginning of this chapter, I shared a memory from my years of teaching instrumental music in middle school. This memory served as a reminder of one important step in the symphonic planning cycle, sight-reading. When musicians sight-read a musical passage, the conductor can decide if the musicians have the basic knowledge and skills to begin independent practice and rehearsals. However, when musicians are not able to sightread the passage, the conductor must decide to: (1) select a new musical passage or (2) select etudes or add another selection that would provide the musicians the skills and knowledge needed to perform the original selection. As we entered PAR Cycle Two, the rehearsal and performance phase of the symphonic planning cycle, we paid attention to what we learned in the sightreading phase: Take a step back and ensure success by adding planning for instruction to the peer coaching cycle as a necessary first step (see Table 13) for the activities for each of the remaining phases of the symphonic planning model).

PAR Cycle Two Process (Rehearse, Perform)

To reiterate, to implement a peer coaching program successfully, peer coaching had to begin during the planning of inquiry-based instruction. I modeled the planning process with IST members in planning in-service professional development for the WPMS staff. In this section, I describe the actions I took PAR Cycle Two to use the symphonic planning phases: Rehearse and Perform.

Rehearse

In the rehearsal phase, I modeled planning for inquiry-based instruction with IST members. We met in the conference room. On the whiteboard were the goals and desired

Table 13

Activities and Artifacts to Collect during PAR Cycle Two

Symphonic Phase	Activity to Plan	Who	Artifacts to Collect
Rehearsal	CLE IST Meeting Inquiry-based strategy bank	WPMS Staff and IST	CLE Artifacts Reflective Memos Meeting Notes
Performance	Peer Coaching cycle IST Meetings	WPMS Staff and IST	Reflective Memos Personal Narratives Meeting Notes

planning outcomes. The IST selected a series of inquiry-based strategies to facilitate academic discourse to achieve the desired outcome. I modeled selecting a protocol to pair with the inquiry-based strategy to provide equitable opportunities for each staff member to engage in academic discourse.

The IST facilitated in-service professional learning utilizing the lesson plan we co-created with the WPMS staff. IST members modeled inquiry-based strategies to facilitate academic discourse on analyzing standards, building rubrics for mastery, building assessments, and creating a plan on how they would give students feedback on their learning. At the end of the in-service professional learning, IST members built a resource board for teachers with a collection of inquiry-based strategies and step-by-step directions on planning and facilitating the protocols in their classrooms (see Figure 18).

At the end of the PAR Cycle Two rehearsal phase, the stage was set to begin the peer coaching program for planning inquiry-based instructional strategies. In the performance phase, IST members entered their first peer-coaching cycle with the beginning teachers at WPMS. Next, I describe the IST's actions in the performance phase in PAR Cycle Two.

Perform

The Western idea of practice is to acquire a skill. It is very much related to your work ethic, which enjoins us to endure struggle or boredom now in return for future rewards. The Eastern idea of practice, on the other hand, is to create the person, or rather to actualize or reveal the complete person who is already there.... Not only is practice necessary to art, it is art.

Nachmanovitch (1990)

The IST set the stage to co-create a peer coaching program to increase and support the use of inquiry-based instructional strategies in middle school classrooms. During the performance phase of PAR Cycle Two, IST members were ready for their performance phase to support teachers through the same processes they had used. They worked with beginning

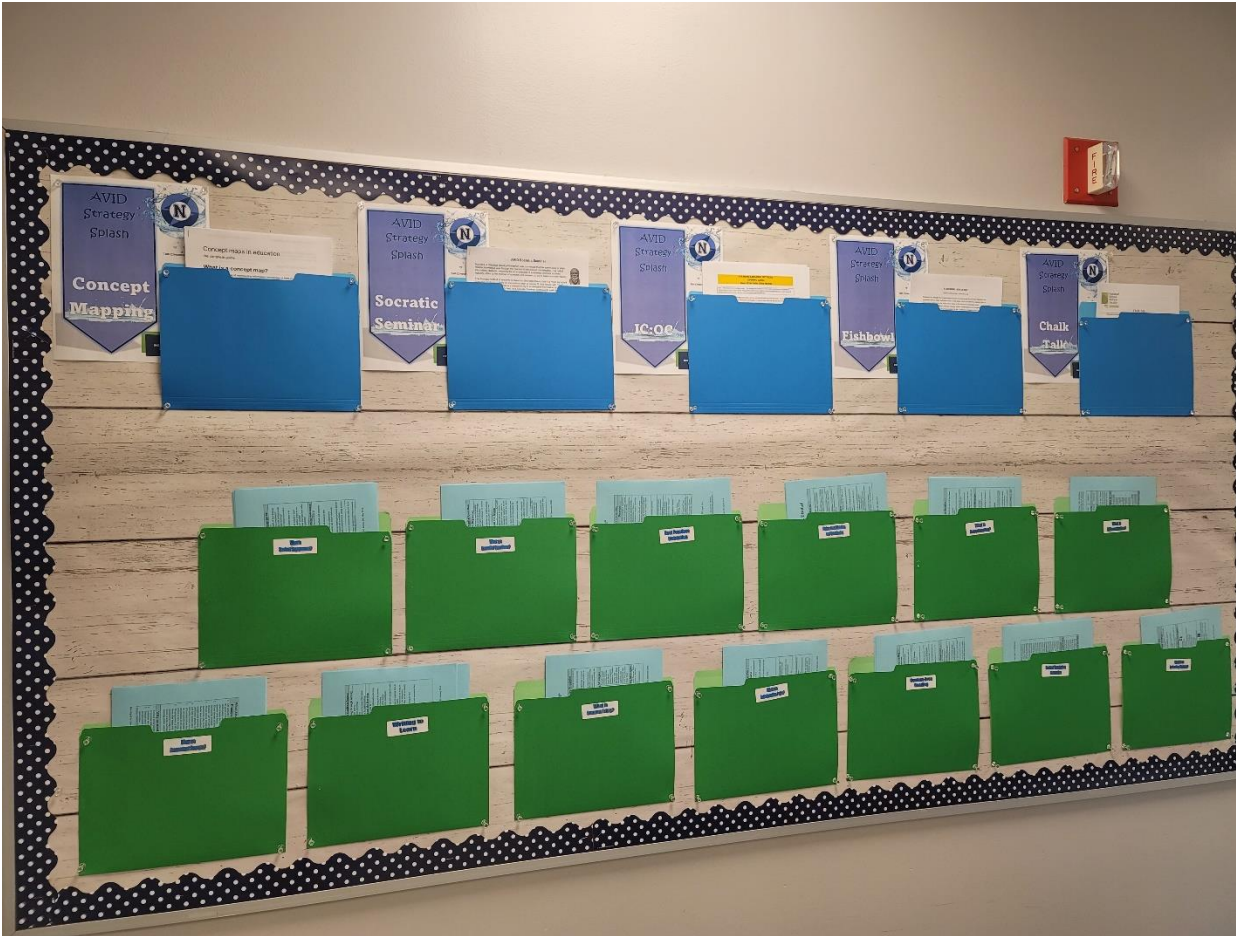


Figure 18. Inquiry-based strategies resource bulletin board.

teachers in selecting and planning inquiry-based strategies, provided real-time coaching during implementation, and led a reflective conversation at the end of the process.

IST members conferred with beginning teachers who began the peer coaching cycle by reviewing their lesson plans. IST members provided written feedback before meeting with the beginning teachers to coach them through planning inquiry-based instruction. IST members and beginning teachers co-constructed an inquiry-based lesson plan during the peer coaching cycle; IST members guided beginning teachers in analyzing the standard to identify skills (what students will do), concepts (what students will know), and Bloom's level and depth of knowledge. They co-constructed the rubric for mastery that identifies how students demonstrate mastery of the standard being taught.

Next, the IST members and beginning teachers co-constructed a lesson plan incorporating inquiry-based instructional strategies and clear protocols that guide students during the lesson. The IST member and the teacher decided on a schedule. The IST set up class coverage during our next IST meeting so that a member could be present to provide real-time coaching during the implementation of the beginning teacher's inquiry-based instructional lesson.

During the lesson, IST members provided feedback to the beginning teacher, ensuring clear directions for students and supporting them work through moments in which they were unsure. At the end of the lesson, the IST member and beginning teacher set up a post-conference to discuss the experience and reflect on student learning through inquiry-based instructional strategies. In describing the evidence from PAR Cycle Two, I discuss the categories that solidified the two themes, setting the stage for inquiry-based instruction and principal moves.

PAR Cycle Two Activities and Emergent Themes

All activities from PAR Cycle Two (see Table 14) generated data that I coded, categorized and analyzed for emerging themes. I looked for patterns and trends that supported the PAR research questions. The overarching question for the PAR was: *How does an Instructional Support Team (IST) design and implement a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers?* We had already learned that to design a peer coaching process, we needed to meet specific teacher needs – including planning. In this cycle, we addressed all of these research questions:

1. To what extent does an IST collaboratively design a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?
2. To what extent does an IST implement a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?
3. To what extent does the involvement in creating and refining a peer coaching program improve the IST team's knowledge, skills, and dispositions in inquiry-based instructional practices?
4. How does involvement in creating and refining a peer coaching program improve the principal's knowledge, skills, and dispositions as an instructional leader?

As I analyzed all artifacts to code keywords, phrases, and ideas, the evidence supported the two emerging themes (see Table 15) in PAR Cycle One: (1) setting the stage for inquiry-based instruction and (2) principal moves. The IST members and I set the stage for inquiry-based instruction by providing real-time coaching.

Table 14

Activities: PAR Cycle Two

	WEEK 1 Jan 3-6	WEEK 2 Jan 9-13	WEEK 3 Jan 16- 20	WEEK 4 Jan 23- 27	WEEK 5 Jan 30- Feb 3	WEEK 6 Feb 6- 10	WEEK 7 Feb 13- 17	WEEK 8 Feb 20- 24	WEEK 9 Feb 27- March 3	WEEK 10 March 6-10
Reflective Memos (n=5)	X		X	X			x			x
Meetings with IST (n=4)			X		X		x			x
Learning Exchange (n=1)						x				
IST Reflections (n=2)							x			x
Modeling Lesson Planning for Staff In-service Professional Learning (n=2)			X		X					
Peer Coaching Cycle - Co- Constructing Lesson Plan (n=3)							xxx			
Peer Coaching Cycle – Real- Time Coaching during Lesson (n=3)								xxx		
Peer Coaching Cycle – Post- Conference Reflections (n=3)									xxx	

Table 15

PAR Cycle Two Emerging Themes and Categories

Emerging Themes	Categories	Frequency of Category
Setting the Stage for IBI (n=90)	Breaking Down Barriers	(n=27) 30%
	Modeling IBS	(n=31) 34%
	Real-Time Coaching	(n=32) 36%
Principal Moves (n=91)	Leadership Actions	(n=24) 26%
	Systems and Structures	(n=31) 34%
	Vision Sharing	(n=36) 40%

Setting the Stage for Inquiry-based Instruction

They should be ready to leap into the unknown while not relying on their knowledge, without even predicting the outcome of the search. By making predictions, one can ruin the chance of discovering new knowledge. Talgam (2015)

Providing teachers with a welcoming environment allows their brains to produce enough oxytocin to prevent them from experiencing anxiety (Hammond, 2015). Teachers often become skeptical and reluctant to try teaching practices different from what they have experienced or have practiced for years (Mehta & Fine, 2019). Through the two cycles of inquiry, the IST addressed what Coyle (1997) states is the chief problem with education: Teacher isolation and school scheduling. I expand on intentional scheduling in the next theme.

During the PAR Cycle Two performance phase, IST members completed their first peer coaching cycle with beginning teachers. Through reflective memos and peer coaching cycle post-conference reflections, the category real-time coaching emerged to strengthen setting the state for inquiry-based instruction as a PAR.

Peer coaching provided the IST opportunities to refine a teacher's skills through real-time coaching and feedback to support their experimentation with inquiry-based strategies (Bowman & McCormick, 2000). In the rehearsal phase of PAR Cycle Two, the IST experienced real-time coaching in the planning of in-service professional development for the WPMS staff. I facilitated the team in breaking down the goal of the in-service professional learning and selecting inquiry-based strategies to ensure the WPMS staff would engage in meaningful discourse to reach our desired outcomes. By engaging the IST in inquiry-based learning strategies throughout the PAR Cycle Two, IST members developed agency, co-constructed knowledge, and engaged in real-time coaching.

IST members began real-time coaching during collaborative sessions to develop inquiry-based lesson plans during their peer coaching cycle. During the IST's post reflections, Teacher F shared that his beginning teacher commented that "having her mentor break down the standard and help her plan a unit led to more meaningful lessons." He shared that being able to provide peer coaching through the planning of the lesson "brought me back to my baseball days; the coach taught each stance, step, and action before the game" (IST Meeting, March 8, 2023). Teacher D had similar reflections when sharing her experiences. "When you coached us in planning the PD for staff, I had a much clearer understanding on what inquiry-based strategy to select," and that "coaching the planning of inquiry-based strategies provided a foundation for her beginning teacher when implementing with students" (IST Meeting, February 15, 2023).

Privacy and autonomy in education are entrenched norms that make it difficult for teachers who desire to change practices within the field (Danielson, 2006). Through real-time coaching during the planning of inquiry-based strategies, the fear and anxiety of being evaluated by a peer is removed and replaced with a collaborative dialogue where knowledge is co-constructed. Teacher E shared that during her peer-coaching cycle, by starting with the planning, she understood the lesson's goal and worked with the beginning teacher to find an inquiry-based strategy that fit her strengths as a teacher and would lead students to the lesson's learning target.

Joyce and Showers (2002) believe that the major purpose of peer coaching is for the implementation of innovations that directly contribute to student outcomes. Teacher F modeled the inquiry-based strategy, concept mapping during the 2023 February staff meeting. His mentee wanted to use the strategy with their students, Teacher F met with his mentee to plan, develop rubrics, and clearly define the purpose of the concept map to fit the standard. He then arranged a time with our instructional coach to have his class covered to provide real-time coaching during

implementation. Teacher F's mentee shared that "having a peer coach present took the stress out of trying something new, he was my safety net" (Personal conversation, February 26, 2023). That is precisely the reaction we hoped for in instituting peer coaching – peer support that produces collaborative inquiry about improving instructional practice which is a missing piece in the school reform puzzle of what might work to shift to equitable and rigorous learning for students.

Principal Moves

The gaps with most potential are often the most intimidating ones, so they are probably covered with layers of tradition, routine, and "that's the way we've always done it here" attitude.
Talgam (2015)

Setting the stage for inquiry-based learning required that I take action to build a common language at WPMS, create systems and structures that support a peer-coaching program to increase and support the use of inquiry-based instruction, and foster teacher efficacy to sustain a peer coaching program. In PAR Cycle One, leadership actions and systems and structures were the dominant categories. The analysis PAR Cycle Two data fortified leadership actions and systems and structures as the dominant categories for the theme principal moves.

In PAR Cycle One, the IST stepped back from implementation of strategies to focus on planning as we discovered that the team and the teachers at WPMS were not ready for a peer coaching program due to the isolation and expectation of privacy that was embedded in the school's culture. In addition, I was in my first year of principalship when the IST conducted the PAR Pre-Cycle and PAR Cycle One. Through praxis and collaborative conversation with staff, I was able to connect my identity as principal to my identity as musical conductor. This self-awareness provided me clear direction on how I approached building teacher capacity at WPMS. To do this, I worked collaboratively to create a common language for WPMS when discussing

student behaviors, academics, and our mission and vision at our school. The PAR Cycle Two data during PAR Cycle Two fortified the categories shared in PAR Cycle One.

During PAR Cycle Two, vision sharing increased in frequency as the IST and staff visited the school's mission and vision statement during every PLC, committee meeting, and staff meeting. During the IST meeting on March 7, 2023, Teacher E shared during her personal narrative that "having the vision engrained in everything kept me focused on the why we are doing this." She explained further with her partner that she used to the vision to ground her when making decisions and that she felt empowered to make decisions – she thought that if her decision aligned with the school's mission and vision, it was the right move.

After talking with a teacher who shared their decision-making process, I reflected on empowering teachers. He told me that he asks himself three questions: "(1) Does it allow students to inquire? (2) Does it allow students to lead? or (3) Does it allow students to serve?" (Reflective Memo, March 15, 2023). If he can answer yes to one of the three questions, he feels comfortable with moving forward with the activity. Originally, I called this teacher efficacy; however, after an IST discussion, the teacher's efficacy was not simply built but unleashed due to the vision sharing.

At this point, we shifted the vision statement. The IST landed on the vision of "inquire, lead, and serve" due to its simplicity and vagueness so that teachers and students could be limitless with their ideas and actions. To connect this approach to the symphonic planning model, composers use vague and relative terms to instruct the musician on how to perform, such as loud and soft or fast and slow; by doing so, the composer is asking the knowledgeable yet creative musician to operate outside the zone of definite knowledge. As a result, in the music we

hear, there is always to contain an element of surprise that the composer cannot determine, or audience predict (Talgam, 2015).

The emerging themes provided the data to confirm the findings for this study. Next, I discuss how setting the stage for inquiry-based instruction supported the IST to develop a peer coaching program to increase the use of inquiry-based instruction. Secondly, the moves I made as principal were essential to developing a peer coaching program.

Findings

As I engaged in the research for the PAR study, I realized that I, the principal, had to make bold moves to set the stage for teachers to engage and immerse teachers in inquiry-based instruction and build a culture in which teachers are willing to leave a state of isolation and the privacy of their classroom to collaborate with a peer coach. Teacher identity is tied to their emotional responses to shifts; they have often faced multiple demands for change that have not actually changed their practices (Cross & Hong, 2012; Cuban, 2012) so we needed to proceed carefully so that the IST and the teachers could adjust to peer coaching as a collaborative process for shifting teacher practices. Two findings emerged from three cycles of inquiry that demonstrate how we designed and started implementation of a peer coaching program that increased and supported inquiry-based instruction:

1. Teachers engage in professional learning and change teaching practices when we set up a non-judgmental collaborative culture that supports their learning and change.
2. The principal needs to manage systems and structures that provide the appropriate support and guidance for encouraging experimentation.

To support these findings, I reorganized the evidence from three cycles of inquiry. For teachers to engage in professional learning that is collaborative, non-judgmental, and supportive, the IST

and I needed to set the stage for experimentation by (a) modeling inquiry-based instruction (IBI), (b) breaking down barriers, and (c) offering real-time coaching (see Figure 19). As the leader, lead researcher, and co-facilitator of this process, I needed to work with the IST to share a vision for the school, attend to specific leadership actions, and set up systems and structures that support change. In all ways, this corresponds to the Grissom et al. (2021) guidelines about how school leaders effect change in schools:

- *Engaging in instructionally focused interactions with teachers.* Forms of engagement with teachers that center on instructional practice... instructional coaching and ... a school-wide instructional program to facilitate such interactions.
- *Building a productive school climate.* Practices that encourage a school environment marked by trust, efficacy, teamwork, engagement with data, organizational learning, and continuous improvement.
- *Facilitating productive collaboration and professional learning communities.* Strategies that promote teachers working together authentically with systems of support to improve their practice and enhance student learning.
- *Managing personnel and resources strategically.* Processes around strategic staffing and allocation of other resources. (p. xv)

Non-Judgmental Culture for Teacher Learning and Change

As indicated in Figure 20, three factors were essential in setting up a culture in which teachers would move from the classroom silo to participate in peer coaching. Teacher learning

Building Inquiry-based Instruction through Peer Coaching	
Setting the Stage for experimentation • Model Inquiry-based Instruction • Break Down Barriers • Offer Real-time Coaching	Principal Moves • Share a Vision • Attend to Specific Leadership Actions • Set Up Systems and Structures that Support Change

Figure 19. Two findings support implementing inquiry-based instruction through peer coaching with middle school teachers.

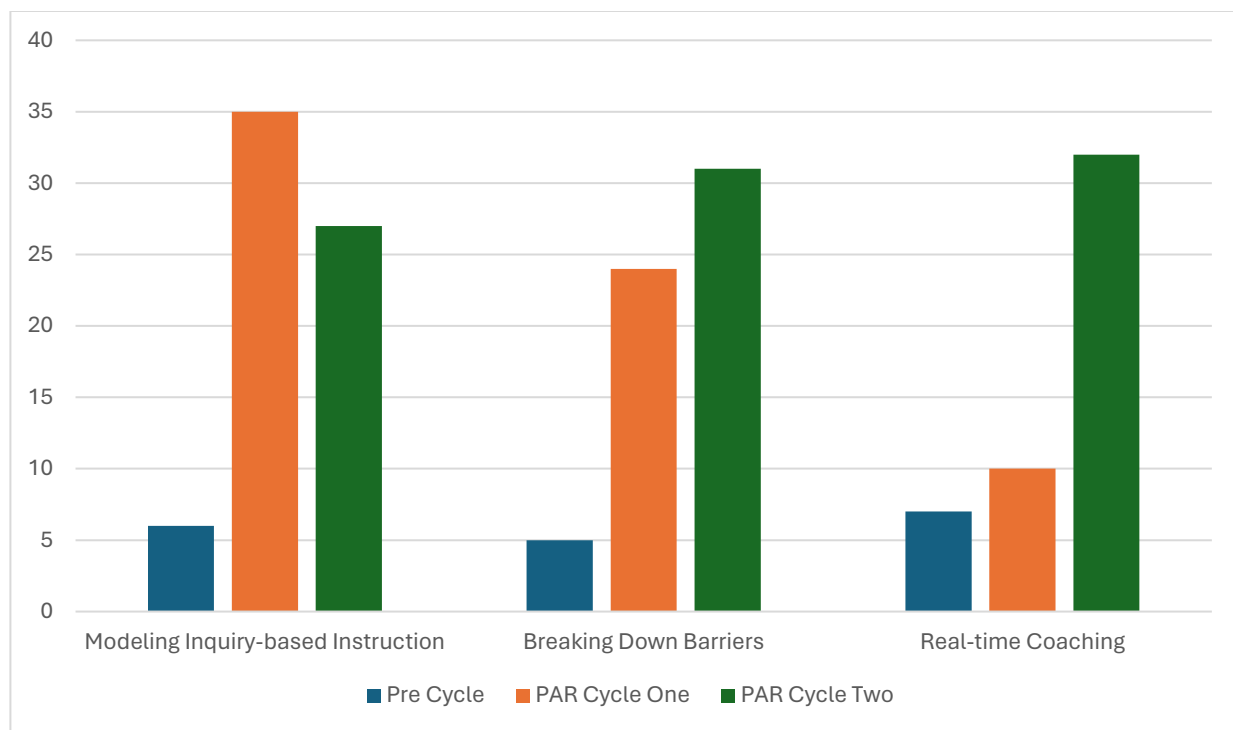


Figure 20. Frequency of themes across PAR cycles for setting the stage.

needed to provide a mirror for what we expected in the classroom; professional learning needs to include inquiry-based instructional practices and cultural nurturing experiences. As we have learned from multiple examples, if we want teachers to change, we must model what we expect (Britt, 2023; James, 2023).

The privacy of the classroom is important to teachers, but so is their participation in an adult learning culture that is safe for their exploration, values their work publicly, and supports them to improve. In this case, the IST members (n=5) and their work as coaches with other teachers (n=3) formed the core of the evidence with the intention of expanding to all teachers once we learned from the initial peer coaching (see Figure 20 for the number of occurrences the themes in each PAR cycle of inquiry). A critical component for the entire PAR project and study was holding space for learning (Drago-Severson, 2012) that nurtured relational trust and listened to their input about pacing; through building trust and listening to teachers, we addressed barriers and moved forward. Finally, the importance of what teachers termed real-time coaching was critical.

Model Inquiry-Based Instruction

To create a peer coaching program to support and increase the use of inquiry-based instruction, participating teachers – first the IST and then other participating teachers -- needed to first experience inquiry-based instruction. A principal cannot simply tell teachers what to do and expect them to change their educational practice (Mehta & Fine, 2019). Teachers only change their practice once they have personally experienced and engaged in new learning using inquiry-based strategies that we expect them to use in the classroom in collaborative, co-constructive processes (Woo & Henriksen, 2023). In the PAR Pre-Cycle, I modeled IBI during

the IST meetings utilizing the five axioms of CLE and inquiry-based strategies that provided agency to the team and relied on their personal experience to build the peer coaching program.

By engaging the IST in IBI, I shifted their role from “vessels needed to be filled” to active members who used their experiences and gifts to provide solutions to the issues they experience daily in the classroom (Freire, 2018). When setting the timeline and focus for PAR Cycle One, the IST requested that modeling inquiry-based strategies and the five axioms of CLE be a norm for every meeting held at WPMS. Teacher B, the instructional coach shared that he “has learned so much from the team and wants the staff [of WPMS] to share their experiences” and that he “had no idea the team [IST] carried so many experiences” (IST Meeting Notes, April 25, 2022).

When the staff returned for the 2022-2023 school year, the IST designed the opening staff meeting on inquiry-based instruction and the shift in power to both students and teachers. The staff engaged in inquiry-based instruction that provided opportunities for them to share their ideas, experiences, and misconceptions on inquiry-based instruction. The IST used the artifacts collected during the August 22, 2022 CLE to begin “program” the peer coaching program in PAR Cycle One. However, during the “sight-reading” phase, IST members recognized that teachers not only needed to experience inquiry-based strategies through modeling, but they needed to experience modeling the selection and planning process of IBI.

Throughout PAR Cycle One, the IST engaged in the IBI planning. When we met, we sat in a semi-circle in front of a whiteboard. I posted meeting objectives with the desired outcomes; as a team, we discussed which inquiry-based strategies would best fit our need and elicit the most discourse from the staff. Teacher E shared in her meeting reflection:

I had no idea how to select an inquiry-based strategy to achieve my learning target. I have been randomly selecting a strategy with really no thought...it's no wonder they [students] seem lost or confused during the activity, there was no purpose behind it. (Meeting Notes, October 12, 2022)

As I modeled the planning process for in-service professional learning, the IST engaged in a “see it-name it” protocol. When they recognized an axiom of CLE, saw an opportunity to break down barriers, transfer power (agency) to teachers, or address inequities. Teacher D shared in an exit ticket that “hearing the team ‘name it’ in real time was eye opening and helped me recognize opportunities in future meetings” (Meeting notes, October 12, 2022).

In PAR Cycle Two, the IST took full responsibility of facilitating the planning process. This step was their opportunity to practice and rehearse the planning process under a stress-free environment in which I served as the coach. Once the IST had opportunities to rehearse the planning process, they began their ‘performance’ and took modeling the planning of inquiry-based strategies to professional learning communities (PLC) and peer coaching beginning teachers who expressed interest in adding inquiry-based instruction to their repertoire. These opportunities for practice helped to break down barriers.

Breaking Down Barriers

In order to provide teachers a non-judgmental culture for teacher learning and change, the IST had to identify and break down the barriers that stood in the way. Breaking down barriers presented itself in each PAR Cycle and increased as the process proceeded (see Figure 21). In the PAR Pre-Cycle, the category was noted and emerged as a theme near the end of PAR Cycle One. In the PAR Pre-Cycle, the IST did not feel comfortable making decisions or sharing ideas. Teacher A shared at our initial CLE that she has “always been told what to do, how to do

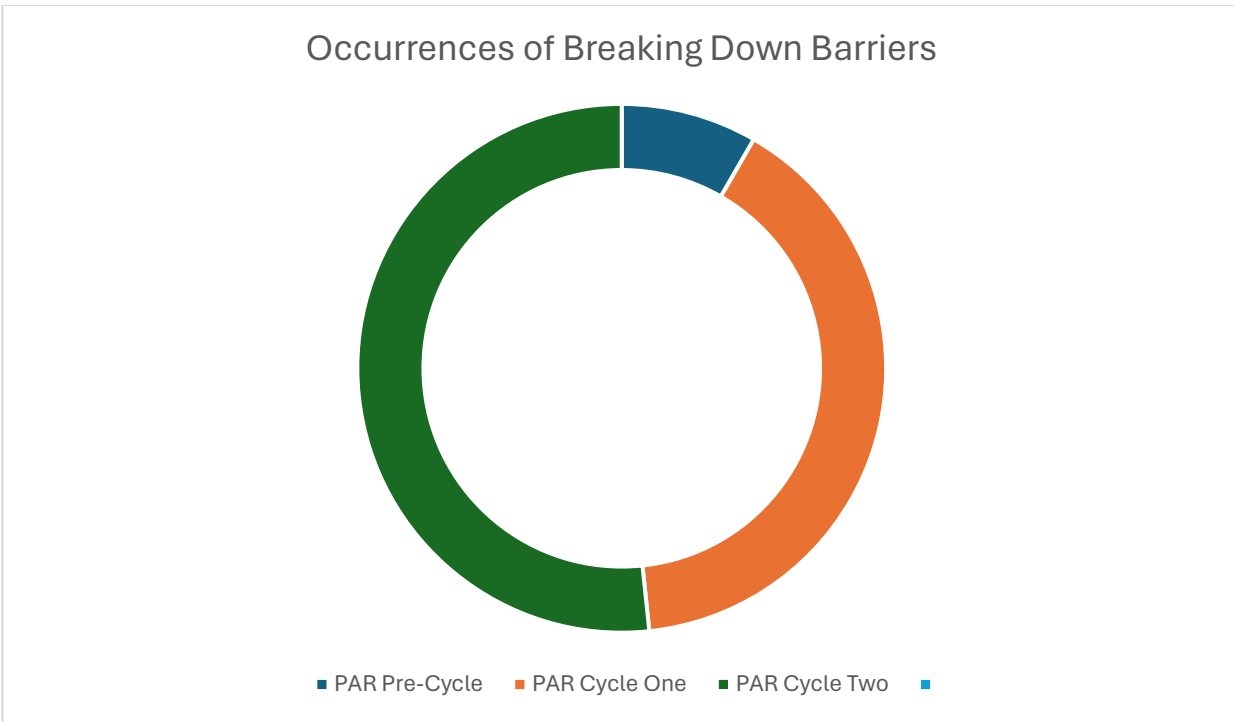


Figure 21. Occurrences of breaking down barriers.

something by admin...I am not comfortable making decisions” (CLE artifact, April 5, 2022). As principal, I noted that this was a barrier to inquiry-based instruction that would need to be addressed in a reflective memo. I wrote, “it is evident that the IST does not have decision making experience. I will need to focus on building relational trust with the team before we can effectively run a peer coaching program” (April 17, 2022).

In PAR Cycle One, the IST discussed a barrier that we as a team needed to break down was the lack of knowledge about effective lesson planning. This lack of knowledge was primarily due to WPMS having a young staff with 40% having five or fewer years of teaching experience. The first step the IST took to break down this barrier was to provide the staff with inquiry-based experiences during every PLC, staff meeting, and committee meeting. Staff were exposed to inquiry-based strategies which required them to engage in dialogue with peers outside of their grade and content level. The IST used protocols in which teachers sit at different tables or engage in dialogue with a pre-determined small group. This action was meaningful and purposeful and helped to address the second identified barrier -- teachers operating in silos.

For the IST to break down the barrier of classroom teachers functioning independently, modeling inquiry-based instruction that encouraged teachers to engage in dialogue with their peers was critical. To ensure that learning IBI was meaningful, the IST choose topics that were relevant to the IST and staff of WPMS (Glaser, 2002; Lindeman, 1926). The topics discussed in staff meetings and in-service professional learning were designed to address teacher needs and used to ensure the probability for a transfer to practice (Rosa & Toncelli, 2022; Terehoff, 2002).

In PAR Cycle One, teachers were apprehensive about talking freely about teaching practices. During the August 22, 2022 CLE, we introduced dynamic mindfulness, personal narratives, and inquiry-based strategies, which shifted the power of dialogue to the staff instead

of being directed by the principal. After the CLE, a teacher shared, "I feel like that was the quickest and most meaningful staff meeting I have ever been in. I learned so much about my teammates" (Personal conversation, August 22, 2022). Jewett and MacPhee (2012b) posit that a perceived barrier to a peer coaching program is a teacher's fear of asking a colleague for assistance and found that with relational trust, teachers found meeting with colleagues more meaningful due to conversations had in communities of practice, which, in turn, nurtured trust among staff. Because we knew that building relational trust was a major barrier to developing the peer coaching program, I expand on relational trust further in the second finding.

Offer Real-Time Coaching

An orchestra conductor provides real-time coaching to members during a performance through various techniques, such as hand gestures, facial expressions, and body language to provide guidance on balance, intonation, and to provide reminders on what is coming next. For this PAR, real-time coaching emerged after several cycles of the model-practice and rehearse phases of the symphonic planning design. Conductors can spend hours rehearsing only four measures worth of music, working with one section (woodwind, brass, strings, percussion) at a time, only adding additional components once the initial section was ready to move forward. This approach ensures that the musician does not build bad habits into muscle memory that would later need to be unlearned.

In education, too often we view in-service professional development as an opportunity to quickly show teachers how to use innovative strategies, techniques, and ideas with little to no consideration on how they can transfer the learning into practice (Rosa & Toncelli, 2022; Terehoff, 2002). Showers and Joyce (1996) conducted a series of studies across two decades and found that peer coaching dramatically increased the rate of transfer to practice when teachers

form small learning communities. When working with the IST in PAR Cycle Two, I served as the peer coach and provided real-time coaching in the IST meetings in which they planned inquiry-based instructional strategies for in-service professional learning. I reflected on this experience in a reflective memo on February 2, 2023:

I have seen my team grow through the collaborative planning meetings for in-service professional learning. Their understanding on selecting strategies, protocols, and personal narratives is amazing and I cannot wait to see them transfer their knowledge to coaching a peer. I believe that providing real-time feedback and using the ‘see it name it’ protocol has helped them identify opportunities to transfer POWER to the learner.

In the final phase of PAR Cycle Two, the IST used the model we had practiced and rehearsed to performance. The IST provided real-time coaching, beginning with lesson planning, following the same protocols we had rehearsed in IST meetings. Teacher F shared that he let his mentee do most of the talking, and he used the ‘see it, name it’ protocol. He stated that “it was too freakin’ easy; I didn’t have to worry about content, just the purpose behind the discourse” (Reflection, March 8, 2023). Teacher F went a step further to support his mentee in providing real-time coaching during the implementation of the strategy. We modeled a concept map during in-service professional learning having teachers connect the school vision to the school initiatives of AVID and POWER. The concept map was used to model inquiry during in-service professional learning. Teacher F worked with a teacher in a peer coaching cycle to help plan and implement the concept map using inquiry during a lesson. Figure 22 shows an example of a concept map created during the in-service professional learning and an example of the student work that resulted in the transfer to practice.

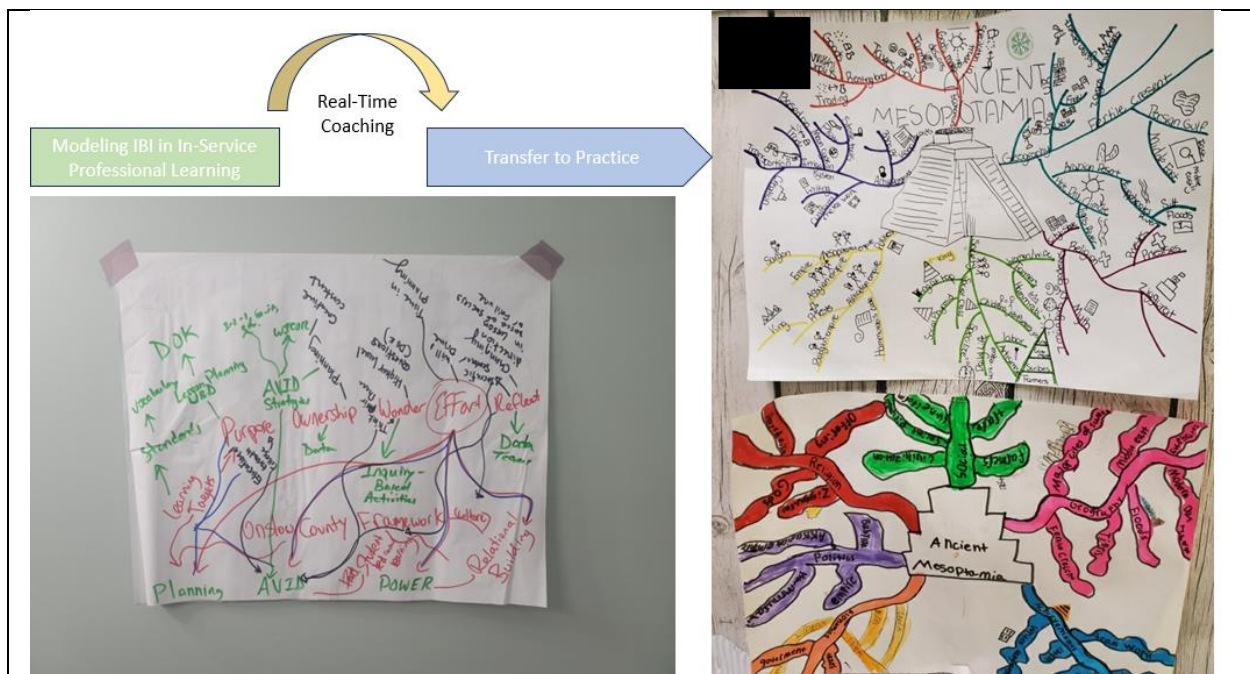


Figure 22. Real-time coaching is the bridge to implementation.

Once teachers felt safe in a non-judgmental culture, they were willing to participate in inquiry-based in-service professional learning and become vulnerable in discourse to express their needs to implement inquiry-based instruction. The IST co-designed a peer coaching program that supported and increased transfer of practice from in-service professional learning to classroom instruction. In discussing the second finding of the PAR study, I analyze how a principal must manage systems and structures to provide the proper guidance for encouraging experimentation with inquiry-based strategies.

Principal Moves

In using the term moves, I was intentional. As a conductor of an orchestra uses movements that are directive but subtle, I recognized that attention to actions mattered. First of all, on the advice from IST and with their input, we moved from a vision of an orchestrated process in my head to a vision and mission that fully communicated an intention. I engaged in particular leadership actions that supported the work, including acting as a colleague in professional learning sessions and working with the IST to think and rethink our plan. Finally, as with any school, the systems and structures can make or break a reform effort (see Figure 23).

Share a Vision

I wrote about a re-occurring conversation that I had with a CTE teacher at WPMS during my first year. He would consistently walk into my office and ask, “what is your vision?” I watched him become more frustrated each time he asked, and I fumbled with my answer. When reading my reflective memos, I recognized that I had lost my identity as a leader. During the PAR Pre-Cycle, I was in my second semester as a first-year principal; for six years, I had served as an assistant principal, an identity I knew very well. However, in this new setting, new school, with new staff, I did not know who I was.

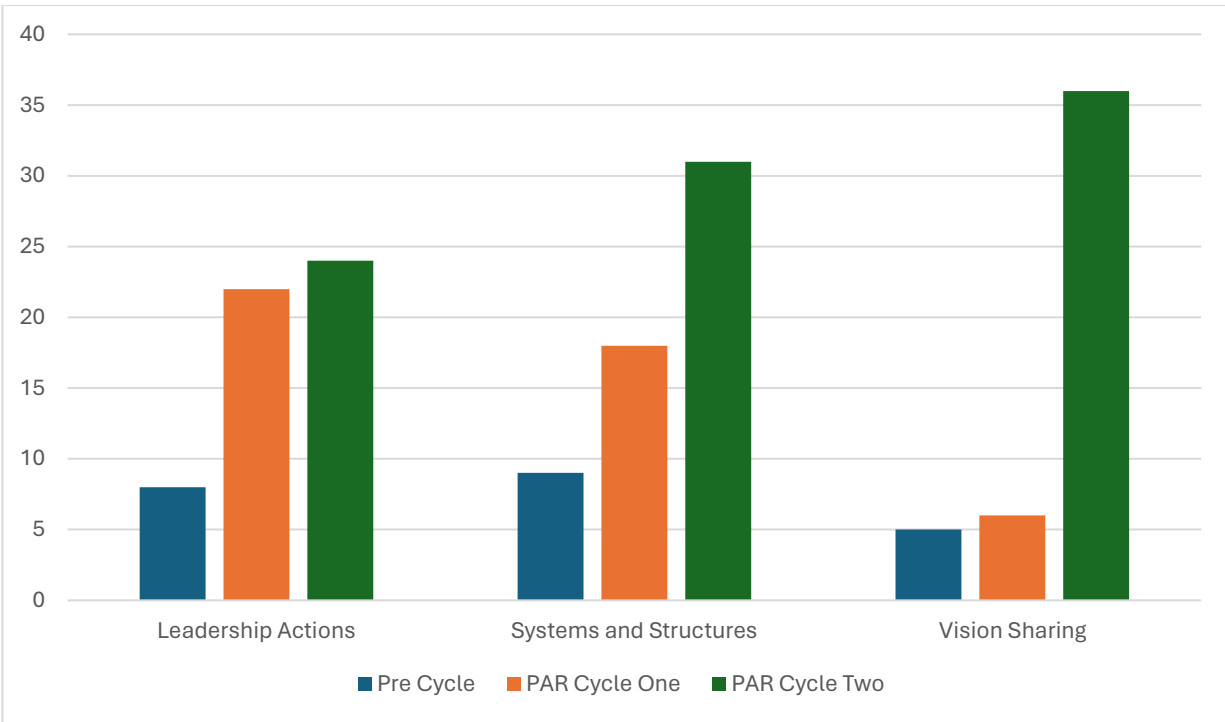


Figure 23. Frequency of data across PAR cycles for principal moves.

I practiced self-awareness exercises and revisited past reflective memos and a digital story created as part of the EdD. program. To build a vision for WPMS, I had to be grounded in who I was and how I wanted to lead. I embraced my identity as a conductor to guide conversations and the planning of the PAR. In my reflective memo, I wrote:

I have felt lost this year, like I am leading someone else's school. I have so many things that I would like to change but I cannot do it alone. My teachers say, "don't change it all, but if see something that needs to be change, change it." I listened to the advice to not make big changes your first year, however, I do not believe in that advise, it has lead me to an identity crisis. (December 18, 2021).

In working with the IST during the PAR Pre-Cycle, several members talked about their experiences in the arts and how those experiences have influenced their identities as teachers. This common ground is what sparked the symphonic planning design for the PAR. The sequence of symphonic planning provided the IST with the vision, structure, and architecture to become the peer coaches they desire to be. This sequence of symphonic planning is the architecture that guided the IST's learning and growth as observers before entering a peer's classroom. The process of modeling and immersing the IST in the process allowed them to see the small details that made them successful and conduct small probes before expanding the peer coaching program. The re-connection to my identity as a conductor sparked conversations with the staff on empowering students to become leaders within the school. I expressed that I wanted the mission of our school to empower students to inquire and lead, the IST later added serve to the mission. Teacher B worked with the Positive Behavior and Intervention Support (PBIS) team to co-develop a new behavior matrix that used the word power. The PBIS team worked to build the meaning of power, the IST met with them to select qualities we want to instill in our students

instead of the traditional compliance-based words. We decided on purpose, ownership, wonder, effort, and reflection.

To drive this vision of inquiry, leadership, and service, I wrote an affirmation poem (see Figure 24) for our students that we recited daily after morning announcements. Social psychologist Claude Steele (2011) suggested that individuals are motivated to maintain self-integrity or sense that one is a person of worth, adequate, and able to make changes (Aronson et al., 2019). During the first two weeks of school the staff talked about student power, what it looked like, sounded like, and what actions it took to practice dolphin power.

Talgam (2015) contends that a leader's main priority is to create a vision so clear that it permeates every aspect of the organization. To ensure that the mission and vision of WPMS stayed in the forefront of every conversation, I attended to leadership moves and created systems and structures that supported and embraced the mission of building communities that inquire about the future, lead in the present, and serve our community. That was a clear leadership action that had immediate results, but other actions were essential to ensuring others were ready to lead the effort as I retained a clear leadership stance that guided the work.

Attend to Leadership Actions

The co-creation of a successful peer coaching program designed to support and increase inquiry-based instruction required me, the principal, educational leader of the school to attend to several leadership actions. These leadership actions were (1) building relational trust with staff, (2) staying connected to my identity as a teacher, and (3) changing the school's culture.

As the IST worked with the PBIS team on the school vision of Dolphin POWER, we engaged in conversation with the staff on the direction for the 2022-2023 school year. These conversations



I am a DOLPHIN, and I AM POWER
When I act with PURPOSE, I
practice my POWER
When I take OWNERSHIP of my
education, I create POWER
When I never cease to WONDER on
my impact, I build POWER
When I put forth EFFORT in my
actions, I gain POWER
When I REFLECT on who I want to
be, I refine my POWER
I am a DOLPHIN, and I AM POWER.



Figure 24. Ownership of vision at student level.

provided teachers a chance ask questions on what it meant for them, provide feedback, or perhaps seek employment at a school that matched their personal convictions.

In Spring 2022, I met with every staff member during the district's transfer period. I provided them the opportunity to give me feedback and communicate their vision for the next school year. I wrote about these meetings in field notes, noting that "the teachers that have joined the PBIS team and IST were more open to express their hopes and dreams as well as provide me honest and sometimes brutal feedback" (April 30, 2022).

To build relational trust with the staff, I shifted our monthly staff meetings to community learning exchanges (CLE), providing every staff member a voice as an expert in the building. Cranston (2011) states that the commitment to trust is an important precondition for schools to improve through professional learning communities. He describes relational trust as the extent to which each member understands their and the other members' expectations, obligations and beliefs.

Throughout PAR Cycles One and Two, I was intentional about becoming an active participant during our CLEs; I joined different tables for each activity to ensure all staff had a chance to build a trusting relationship with me as their principal. As I shared, this impacted several teachers in a meaningful way. I could hear their responses directly if they were overwhelmed, confused, or excited about the topic being discussed. Kanold (2011) reflected on his experience when he heard his principal say, "I don't know" and how that model gave him the freedom to say, "I don't know." This helped him become an inquiry-based leader and empowered his staff to take responsibility for their growth; his communication was "with" teachers instead of "to" them. At a November staff meeting, I joined a table discussing the AVID in-service professional learning and how they thought about AVID as "just one more thing" (Field notes,

November 2, 2022). The notion of “one more thing” was a warning signal, and I addressed their concern by setting up systems and structures with the IST to connect every facet of the in-service professional learning to the school’s mission and vision (see Figure 25), which is a CLE artifact that required staff to connect the school’s mission and vision, AVID, and inquiry-based instruction together. This helped teachers in meaning-making through in-service professional learning.

Set Up Systems and Structures

Part of changing the culture of a school is redefining or creating systems and structures that support the mission and vision. To provide the systems and structures needed to build a peer coaching program at WPMS, I needed to build relational trust with the staff, address barriers that would prevent peer coaching, such as scheduling of school personnel, dismantle the silo mentality of teaching and learning, and provide leadership opportunities for students and staff.

In the previous year, transitions occurred simultaneously, and teachers could not visit classrooms during instruction. I organized the bell schedule so that each grade level had staggered transitions. Teachers then had easier access to visit classrooms throughout the day. In addition, when developing the 2022-2023 school year schedule, I analyzed the needs of the most vulnerable teachers to ensure that they had rooms next to the veteran teachers or their mentors in the same grade level. Setting these structures for teachers provided the opportunity to visit classrooms and eliminated barriers to entering a teacher’s classroom. Teacher A described the door threshold as “the scariest barrier to cross” (Personal conversation, June 7, 2022).

The second system and structure to support relational trust and leadership opportunities was establishing a family system of five families. The staff was charged with keeping check on



Figure 25. Representing how to connect systems and structures.

family members throughout the year; each family had staff from every department and grade level, including office staff, custodians, and our cafeteria staff. Teacher G shared that “having someone outside of his hallway visit to check on him made the hard stuff easier to manage.” He continued to say that he “knew he wasn’t alone” (Personal conversation, June 7, 2022).

The final system and structure was a peer coaching program that provided a pathway to build staff capacity. Figure 26 visually represents the progression developed to provide staff with the support they needed to build their identities as peer coaches and instructional leaders through the PAR process. The structure to build capacity provided the IST opportunities to experiment, rehearse, and practice their skill before performing it in front of their peers. By building teacher capacity the barrier of educational hierarchy is broken as the transfer of power moves from one individual to many.

Through co-developing a vision that encompasses every aspect of the school. Teachers had the freedom to experiment within the vision by asking three questions: (1) Does this promote inquiry? (2) Does this promote leadership? And (3) Does this promote service? This provide guidance and parameters that teachers were free to work under and to work creatively to promote the school vision. This freedom to experiment was also encouraged through building relational trust among the staff through the CLE style staff meetings and administration modeling being vulnerable when learning new skills. The staff adopted the mantra “think beginning band,” meaning the process might be ugly at first, but with practice, experimentation, and refinement, we can collectively make it musical.

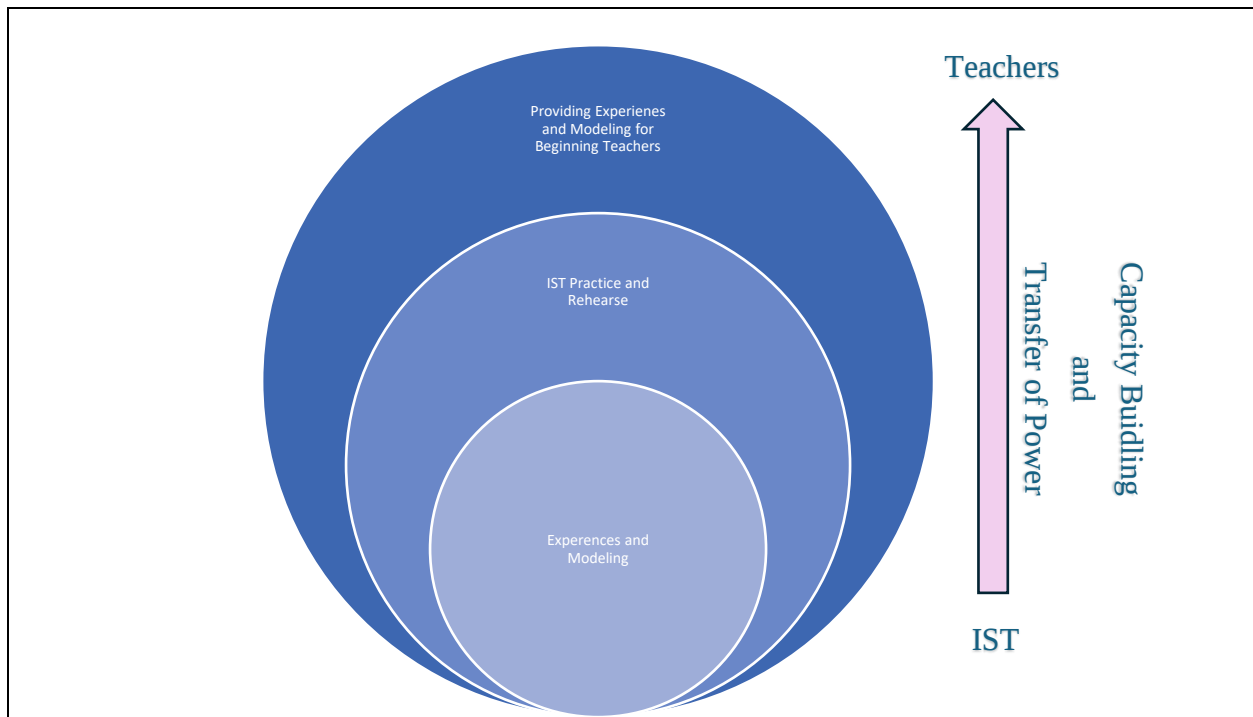


Figure 26. Visual representation of capacity building leading to implementation.

Conclusion

In this chapter I discussed the action steps taken in PAR Cycles One and Two and summarized the data from the two PAR Cycles provided two emergent themes: (1) setting the stage for inquiry-based instruction and (2) principal moves. These emergent themes were fortified and as a result from three cycles of inquiry, and two findings emerged that demonstrated how we built a peer coaching program that increased and supported inquiry-based instruction:

1. Teachers engage in professional learning and change teaching practices when we set up a non-judgmental collaborative culture that supports their learning and change.
2. The principal needs to manage systems and structures that provide the appropriate support and guidance for encouraging experimentation.

In Figure 26, I visually represent our journey to build collective capacity for change. The IST felt empowered by the process to co-create processes for supporting beginning teachers to plan and implement inquiry-based instruction. The IST members established a culture of vulnerability and remained thoughtful; throughout, we made decisions based on teacher readiness. When we were not ready to move forward and needed to “cycle back” to the design of the peer coaching program, we had the processes and evidence necessary to make informed decisions. The symphonic planning framework provided the IST with the permission and expectation to reflect on our praxis and revise the plan to meet the needs of each individual member. The framework anchored the IST in the Focus of Practice instead of rushing to develop a peer coaching program that would inevitably not meet the needs of the teachers or increase the use of inquiry-based instructional practices. Due to the openness of the IST and the flexibility of the symphonic framework to revise based on small probes of experimentation, we co-developed systems and structures to build the capacity of teachers in a safe, structured environment that

supported them to practice and rehearse the skills they needed before performing them in the classroom or with a peer.

CHAPTER 6: DISCUSSION AND IMPLICATION

In the participatory action research (PAR), a small group of teachers as an Instructional Support Team (IST) and I, as the principal co-designed and implemented a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers. The Woodland Park Middle School (WPMS) staff wanted to shift the instructional culture to encourage inquiry, leadership, and service and believed inquiry-based instructional practices were the best catalyst. Therefore, I based the PAR on this theory of action: *If* the instructional support team collaboratively designs a peer coaching program that supports and improves inquiry-based instructional practices, *then* teachers will have support to develop the skills, knowledge, and disposition to implement inquiry-based instruction at WPMS.

I conducted this research at a middle school with 59 staff members and 694 students. During this study, the school had sixteen teachers identified as beginning teachers (BTs) with fewer than five years of experience. The staff's demographic composition of 76% White and 24% Black, Hispanic non-white, Asian, and multi-racial did not reflect our student demographic composition of 53% Black, Hispanic non-white, Asian, and multi-racial. In addition, 47% of students were identified as economically disadvantaged (receiving free or reduced lunch). Even though staff and students experienced a difficult time during COVID-19, the IST members remained focused on changing the school culture and teaching practices. The PAR project and study were possible because of the IST's commitment and determination to support and improve inquiry-based instructional practices to provide our students with the education they deserve.

The IST began with six teachers during the PAR Pre-Cycle and, due to staff transitions, concluded with three teachers through PAR Cycles One and Two. The IST understood that to support teachers in inquiry-based instruction through peer coaching, we needed to provide

teachers with experiences in inquiry-based in-service professional learning, break down barriers that stood in the way of transferring in-service professional learning into practice, and build systems and structures that build teacher instructional and leadership capacity. Through the work of the PAR study, two teachers on the IST were recognized by the district as the Mentor Teacher of the Year for the 2022 and 2023 school year.

Over sixteen months of participatory action research, the IST and I conducted a Pre-Cycle and two cycles of inquiry to collaboratively build a peer coaching program to support and increase inquiry-based instructional practices. Using the networked improvement community (NIC) structure throughout the PAR process (Bryk et al., 2015), we adopted the community learning exchange (CLE) axioms as its norms to fortify our efforts. The IST co-developed a peer coaching program through a dynamic social process focused on the hopes and dreams of the WPMS staff (Guajardo et al., 2016). The IST engaged in multiple activities (see Table 16) through the three cycles of inquiry to build their capacity as peer coaches, which provided data for analysis. The IST and I orchestrated the activities to model inquiry-based teaching and learning as I wanted the IST and staff to have deep experiences in inquiry-based instruction. I used IST meetings, CLEs, reflective memos, and coaching conversations during the three cycles of inquiry and analyzed the data to determine two findings that demonstrate how we built a peer coaching program that increased and supported inquiry-based instruction:

1. Teachers engage in professional learning and change teaching practices when we set up a non-judgmental collaborative culture that supports their learning and change.
2. The principal needs to manage systems and structures that provide the appropriate support and guidance for encouraging experimentation.

Table 16

Activities of PAR Cycles of Inquiry

PAR Cycle	Symphonic Phase	Who	Activities
Pre-Cycle	Programming	IST	CLE (n=1) IST Meetings (n=2) Reflective Memos (n=4)
PAR Cycle One	Sight-Reading	IST and WPMS Staff	Reflective Memos (n=7) IST Meetings (n=4) CLE (n=1)
	Practice and Modeling	IST	Observations of IST (n=3) Post Conferences for IST (n=4) IST Reflections (n=3) Modeling Lesson Planning for ISPL (n=2)
PAR Cycle Two	Rehearsal	IST	Reflective Memos (n=5) IST Meetings (n=4) CLE (n=1)
	Perform	WPMS Staff and IST	IST Reflections (n=2) Peer Coaching Cycle – Lesson Planning (n=3) Peer Coaching Cycle – During instruction (n=3) Peer Coaching Cycle – Post Reflections (n=3)

Teachers must feel safe and free of judgment before opening doors to a peer coach and experimenting with their instructional practice. I documented how the IST addressed the barriers and built relational trust to support learning new instructional practices and how managing systems and structures provided staff with clear and flexible guidance to experiment with their new learning and instructional practices.

In summarizing the two findings of the PAR study, I make connections to the literature and examine the research questions. Then, I review the implications for policy, practice, and research. Finally, I conclude the chapter by reflecting on how the PAR process influenced my leadership development over the sixteen months of research.

Discussion

I began the PAR study thinking that peer coaching through observations and post-observation conferences was the key to orchestrating change in a teacher's educational practices. This simplistic approach caused me to miss vital steps in building a peer coaching program that primarily intended to change teachers' instructional practices to an inquiry-based instructional model. The necessary step of building relational trust with staff and developing systems and structures provided teachers with a safe space to experiment without the fear of judgment.

In this section, I connect the PAR findings to the extant literature, present the final framework of the PAR study, and review the research questions for the PAR. While I present the review of extant research linearly, the PAR study reveals that the literature is more nuanced and intertwined with the PAR findings. In addressing the findings, I integrate factors critical to IST finding and the leadership findings. We participated together in creating a shared vision that was essential to all subsequent work. I concurrently addressed systems and structures and worked with the IST to support the systems and structures, incorporating their ideas. A key system that

we used was a collaborative approach to leading. As a result, we cultivated trust as a team and used the same approaches to work with teachers. Finally, I find that attending to the tenets of liberatory design (NEP, 2023) are consistent with and adds to the symphonic process that I have used throughout the PAR study as a conceptual framework.

Creating a Shared Vision

Such interpretation is a constant negotiation between the conductor's musical vision, the vision of the musicians, and their ability to realize it or perhaps even surpass it. The orchestral conductor must therefore be equipped not only with musical knowledge but also be a proficient pedagogue, communicator, and diplomat. (Marotto et al., 2007, pp. 386-397)

When designing the PAR study, I was beginning my first year as principal at a new school. Following the guidance of “do not make big changes your first year.” However, the IST team was poised and ready to act, and, through careful listening, we worked collaboratively in the PAR Pre-Cycle to construct a mission and vision that would guide every facet of the school. Murphy and Torre (2015) contend that a compelling vision includes the organization's mission, goals, and expectations. The IST developed the school's “Inquire.Lead.Serve” vision to lay the groundwork for a peer coaching program that was successful because we relied on distributed leadership tenets. In that concept of leadership, leadership is cognitively distributed among members, and the responsibility of the leader – and, in this case, the IST, is to rely on the strengths of each person on a team to design and implement change (Spillane et al., 2001). The IST knew that for the vision to be sustainable, we needed to weave the vision into the school's culture and support the stakeholders' relationships, goals, and values (Huffman, 2003; Huffman & Hipp, 2001; Murphy & Torre, 2015).

We invested in a collaborative approach to create a shared vision at WPMS and provided the staff with opportunities to share hesitations and constraints with the IST. As a result, we could problem-solve in real time to address concerns and rely on the shared goals that utilized

everyone's capacity and interests (Doten-Snitker et al., 2020). When teachers work at a school in which the vision aligns with their personal values, they are more motivated (Skaalvik & Skaalvik, 2011). The teachers in the study reported feeling less emotionally exhausted than those who worked at a school with a vision that did not align with their personal values. In our case, co-constructing a school vision we attached to, became a beacon for the continued work and supported our ability to address concerns and maintain forward motion. We relied on systems and structures that supported the vision.

Systems and Structures

I want to acquaint you with how to lead when the orchestra already knows the music and doesn't need to be taught. That is the most difficult type of leadership to learn. They still need direction if they're to perform to their potential, but the direction must be more visionary and strategic and less about helping them manage the details. (Nierenberg, 2009, p. 77)

Teacher leadership can be a driving force for organizational change, yet the role of leadership is too often used as a formal position to assist the principal in the form of managerial delegation (Beauchum & Dentith, 2004; Crowther, 1997; Danielson, 2006; York-Barr & Duke, 2004). Danielson (2006) attributes this to the conception of leadership in the business world in which a strong individual works to complete complex tasks. Danielson argues that teacher leadership should not follow this conceptualization; she believes that teacher leaders develop through a collaborative relationship with their peers in which they inspire others to join without a specific destination. They can work from within to change practice (Grubb & Tredway, 2010). During Summer 2022, the IST revamped the WPMS systems and structures to set conditions for learning that allowed the staff to learn from each other, transforming my role as the sole instructional leader into a more distributed approach (Spillane, 2013).

One structure the IST focused on was the school schedule and the process of assigning teachers rooms in the building. Before the PAR study, the school operated on a seven-period day

in which every grade level transitioned simultaneously; however, this schedule did not allow teachers time to work collaboratively or opportunities to visit their peers while actively teaching. Structuring time to work together is important because it provides time for collaborative reflection and decision-making, which are vital components of leadership (Coyle, 1997). The new school schedule provided time for teachers to form network improvement communities (NIC) in place of professional learning communities.

While professional learning communities have been widely adapted in the educational field to drive student achievement by assessing student achievement data (Dufour & Eaker, 1998; Kanold, 2011), Bryk et al. (2015) offer a slightly different approach with network improvement communities (NICs). The NIC processes are embedded in the principles of improvement science, which is a process that helps teachers analyze “specific tasks people do; the processes and tools they use; and how prevailing policies, organizational structures, and norms affect this” (Bryk et al., 2015, pp. 7-8). NICs recognize that teachers bring valuable expertise to problem-solving an issue that individual teachers cannot typically solve in isolation. In NICs, we rely on the core belief that we can accomplish more collaboratively than alone (Bryk et al., 2015). Jewett and MacPhee (2012a) describe members of such communities of practice as willing to wonder, to ask questions, and to try to understand issues related to their work lives. As they share methods through these kinds of interactions, they learn how to do their work better (Jewett & MacPhee, 2012a, p. 106). The process is analogous to working together in a musical or theatrical ensemble.

Solo to Ensemble: Shifting to Collaborative Approach

Teaching has a tradition of autonomy in which educators practice in isolation. Bryk et al. (2015) believe that professional learning for teachers must disrupt the notion of autonomy and focus on collaborative learning experiences.

At the most fundamental level, NIC participation challenges the long-standing norm of autonomy in practice that educators have traditionally prized. It means recognizing that today's problems cannot be solved through isolated individual actions. Each participant holds expertise that is valuable in solving a given problem, but each also recognizes that he or she must join together with others to solve. Consequently, the life of a NIC entails a profound normative shift. It vitalizes a core belief that we can accomplish more together than even the best of us can accomplish alone. (p. 17)

The importance of shifting to a norm of social and co-constructed learning when approaching teacher development and in-service professional learning is vital in order to increase inquiry-based instructional practice (Bryk et al., 2015; Danielson, 2006; Darling-Hammond & McLaughlin, 2011; Joyce & Showers, 2002).

In the PAR Pre-Cycle, the IST identified barriers to co-constructing a peer coaching program and interrupting the isolation of individual teachers through developing a non-judgmental culture. However, during the PAR Pre-Cycle the IST members were hesitant to take leadership roles. Yet, by PAR Cycle One in which the IST used a multifaceted approach, the members addressed relational trust to shift the school's culture. Teachers do want more, and they can be willing and open to new ways to teaching if we nurture relationships with their peers to model, coach, collaborate, and advocate for change in educational practices (Danielson, 2006; Fairman & Mackenzie, 2014; Pounder, 2006; York-Barr & Duke, 2004). Leaders – including

teacher leaders -- need to understand how to build positive social relationships so that the brain signals a sense of physical, psychological, and social safety for learning to be possible (Hammond, 2015).

In PAR Cycle One, as the IST members developed more confidence, they began crossing the threshold into a peer's classroom, observing by simply watching for strategies to adapt and implement in their classrooms. Removing any form of evaluation or rubric helped remove the fear of criticism (Danielson, 2006). Marotto et al. (2007) refer to this as relational leadership that supports trust through listening.

Relational Leadership

In the PAR study, we asked teachers to open their doors and abandon the silo tradition to work collaboratively. During the study, we established a peer coaching program because the IST was intentional in establishing trust with the staff. Certainly, the importance of trust aligns with the research and practice literature (Aguilar, 2013; Bryk, 2010; Bryk & Schneider, 2003). Cranston (2011) states that relational trust is the extent to which teachers understand each other's expectations and obligations within the organization. In Bryk et al. (2010), relational trust is a resource necessary for school improvement. Grubb (2009) names relational trust as an abstract resource, which school staff build from within. Relational trust is a necessary condition for instructional improvement (Tredway & Militello, 2024). To develop relational trust with the staff, I had to act in particular ways as the new principal, and the most effective strategy the IST utilized was what Koivunen and Wennes (2011) call relational listening.

Aguilar (2013) posits that a principal of a new school needs to be personable and vulnerable with teachers; this will build trust in the principal's motives. In PAR Cycle One, I participated actively in the in-service professional learning. Teachers felt safe sharing their

personal experiences and stories, knowing I was doing the same. Developing relational trust is a critical ingredient for any improvement effort in a school (Bryk, 2010; Bryk & Schneider, 2003; Grubb, 2009; Zepeda, 2012). Pearce et al. (2019) warn that without a clear method of cultivating trust, “the [school] member may feel a lack of trust in the person monitoring them, or the act of being monitored may lead to a lack of trust or confidence in their own abilities” (p. 119).

Building trust was a slow and intentional process during PAR Cycle One, continuously weaving the school’s vision into every in-service professional learning. Connecting to the vision provided staff with a common language and purpose. In PAR Cycles One and Two, the IST converted all staff meetings to CLEs which opened the door to dialogue and provided teachers with a safe space to connect at a personal level.

Listening

In the PAR Pre-Cycle, the IST shared that one of their apprehensions to observing their peers was due to past experiences with formal and informal observations. As we started the PAR study, we had to first acknowledge the hurt, mistrust, and alienation that resulted from poor observational practices and a hierarchical approach to teacher leadership. For this PAR study, listening is defined as a broader phenomenon than hearing sounds; it concerns the attitude and relationship to each other and a willingness to receive without judgment (Welsch, 1997). As leaders of equitable practices, we should model a form of inclusive listening so all participants feel heard. Machado (2021) encourages leaders to be active listeners by witnessing the stories and concerns of staff.

Wheatley and Wheatley (2009) suggest that being heard is deeply healing because listening creates relationships. Talgam (2015) defines relational listening in terms of a keynote listener: “A keynote listener is no less focused than a keynote speaker, but his focal point is

different. Instead of focusing on transmitting knowledge, he focuses on creating dialogue” (Talgam, 2015, p. 60). The open dialogue between and among the IST and the staff supported us to identify barriers. Once we identified these barriers, we negotiated action steps and planned actions that supported progress toward breaking down the barriers that often derail school improvement. As a result, the IST assigned meaning to the barrier through dialogue, made shifts based on short cycles of inquiry (Talgam, 2015) and redefined peer coaching and the practices that we need to engage in peer coaching that is supportive to teachers.

To Coach or Co-Construct?

On the one hand, it is all about you as an individual musician. You undertake your warm-up rituals without regard to anyone else on stage because, in a very transparent organization, you are fully accountable for your playing, and you want to perform well. But then in very short order it also becomes necessary to be totally committed to a certain standard for the group. So there is a tense balance between the solo playing and the need for collaboration – exactly the same balance that education faces when they want to encourage individual excellence and team playing at the same time. (Talgam, 2015, pp. 23-24)

To fully embed a distributed leadership approach and engage in authentic and meaningful peer coaching, we were up against a key practice in the grammar of schooling, which focuses on the individual and privacy (Tyack & Cuban, 1998). Too often, typical professional learning does not regard the input of the teachers when designing and implementing change (Tredway & Militello, 2024). Individualism and, more specifically, American individualism tends to reduce social problems to individual problems, locating the root cause of everything from poverty and illness to criminality and racism in the capacities and motives of individuals (Labaree, 2008). This action of individualizing social problems into individual behaviors, like academic achievement, has led to a teacher dialogue that assigns the low achievement of minority students to having a lack of motivation, low family values on education, and an inability to complete rigorous coursework (McKenzie & Scheurich, 2004).

Adhering to norms of privacy, which are entrenched in the field of education, teachers operate within the bounds of their classroom, Danielson (2006) describes a school as a collection of one-room schoolhouses in which teachers operate in silos. Danielson (2006) continues to say that the traditional norms of autonomy and privacy work against developing professional learning communities in which teachers work collaboratively toward school improvement. When describing the challenges of developing these social and co-constructed networks of improvement, “teacher isolation and the tyranny of the school schedule remained our chief problems” (Coyle, 1997, p. 237). An antidote to the silos are network improvement communities (NIC) in which the members have trusting relationships and full engagement is considered vital to their success (Bryk et al., 2015; Cranston, 2011; Danielson, 2006).

In the PAR study, we resolved isolation barriers in the Pre-Cycle and cultivated and deepened relational trust in PAR Cycle One. In PAR Cycle Two, the definition of peer coaching began to take a different meaning than initially stated in Chapter 2. The IST learned through relational listening that the IST and staff were not yet ready for peer coaching through observational practices. Instead, because the IST listened carefully to teachers, they identified the need to coach teachers through the planning process of inquiry-based instructional practices. This form of peer coaching began to resemble a co-constructed model that developed as we analyzed the evidence and shifted our design to accommodate teacher readiness.

Peer Coaching Redefinition

The process of peer-coaching as an on-site strategy for staff development to increase the rate of transfer from professional learning to classroom practice is not new (Joyce & Showers, 1980). Because they discovered that as few as ten percent of the participants in professional learning made a transfer into their classroom practice, they concluded that “well-researched

curriculum and teaching models did not find their way into general practice and thus could not influence students' learning environments" (Showers & Joyce, 1996, p. 12) The authors developed a series of studies that have evolved over the past two decades to dramatically increase peer coaching as a strategy to increase the rate of transfer from professional learning to classroom practice. Their research recommends "that teachers who are studying teaching and curriculum form small peer coaching groups that would share the learning process" (Showers & Joyce, 1996, p. 12) so that their professional learning directly affects student learning (Showers & Joyce, 1996). The model is similar to the improvement science NIC model.

Glickman (2002) defines peer coaching as a "structure in which teachers, as each other's colleagues, conduct cycles of clinical supervision with each other with the overall coordination of a facilitator" (p. 14). Portner (2003) ties coaching into the role of mentoring stating that "coaching is the mentoring function where your relating, assessing, and facilitating behaviors are applied directly to improving your mentee's performance" (p. 41). Yet, these definitions of peer coaching rely on the hierarchical model of leadership. The PAR findings suggest that peer coaching must include more than import clinical supervision practices to improve the performance of a mentee. After three cycles of inquiry, I posit peer coaching is a structure in which teachers, as colleagues, conduct cycles of inquiry with each other through collaborative planning and co-teaching. A co-constructed peer coaching model is a viable strategy to increase teacher agency and dismantle classroom teachers' traditional isolation and leadership hierarchy (Charteris & Smardon, 2014; Danielson, 2006; Joyce & Showers, 2002). However, for teachers to build peer coaching into their identities as teachers, effective in-service professional development must be planned, presented, and transferred into practice (Danielson, 2006; Joyce & Showers, 2002).

Experiential Professional Learning

A co-constructed peer coaching model advances what we know about adult learning (Drago-Severson et al., 2023). To establish and model a norm of social and co-constructed learning, careful planning of teacher development to increase the use of inquiry-based instructional practices is necessary (Bryk et al., 2015; Danielson, 2006; Darling-Hammond & McLaughlin, 2011; Joyce & Showers, 2002). In the PAR study, we organized all in-service professional learning through the lens of andragogy, or tenets of adult learning. Terehoff (2002) summarized key points of Knowles' (1989) research regarding in-service professional learning through the andragogy lens:

- The learning activities are based on the real needs and interests of teachers.
- The planning and design of the in-service professional learning are co-constructed by a group that represents all teachers involved.
- Teachers are involved in formulating their own goals and objectives.
- The teachers are involved in the implementation and evaluation.
- Teachers share all responsibility for making and carrying out decisions (Knowles, 1989).

Through the PAR study, we organized in-service professional learning with the school's new vision of inquiry as the guide. Each month, the IST collaboratively planned in-service learning for staff based on meeting notes from their NIC and data team meetings. The IST modeled inquiry-based instruction in in-service learning, providing staff with detailed handouts on planning and executing the strategy with their students. In PAR Cycle Two, the IST worked with beginning teachers to plan inquiry-based instruction after the professional learning and

provided support in the initial implementation, which built collective teacher capacity for transferring their professional learning to classroom practice.

Unleashing Power: Building Teacher Capacity

Principals tasked with organizing teacher professional development often get lost in creating subjects or organizing professional development into manageable units throughout the year that do not sufficiently address real-time teacher learning (Glaser, 2002; Rosa & Toncelli, 2022). When teacher professional development is based on what needs to be covered, when it will be covered, and how it is divided into units, we are providing technical assistance but missing critical elements of adult learning that would keep teachers engaged and interested in the learning process (Glaser, 2002; Terehoff, 2002).

While the responsibility of planning teachers' professional development to ensure the students' academic success falls on the principal (Coyle, 1997; Terehoff, 2002), using this practice, we reinforce hierarchy and ignore the goals of adult learning. Too often, current professional learning means professional development companies are entering districts with packaged curricula and presentations. Indeed, Horn and Goldstein (2018) calculate that school districts spend \$18 billion on professional learning each year with little to no student improvement. As a result, teachers remain dependent on their principal or district to determine their needs and performance goals (Terehoff, 2002). Instead, our responsibility is to provide resources as a foundation that build teacher self-efficacy as they take on the responsibility for planning and implementing meaningful learning (Knowles, 1989). Rosa and Toncelli (2022) found that professional development that relied on the persons closest to the issues and incorporating their thinking as well as analyzing their apprehensions were critical. They found

that “dedicated time for ongoing collaboration rather than one-off PD workshops and support from administration to empower teachers to enact new practices were essential” (p. 5).

In the PAR study, we completed three cycles of inquiry; with each cycle of inquiry, I collaborated with the IST to build a teacher toolbox of resources for planning inquiry-based instruction. In the PAR Pre-Cycle, the IST identified the barriers to in-service professional learning and peer coaching. In PAR Cycle One, I modeled planning and teaching with inquiry-based instruction, providing the resources needed to build their own self-efficacy. In PAR Cycle One, the IST and principal conducted several cycles of practice and rehearsal of planning and teaching inquiry-based instruction. In PAR Cycle Two, the IST replicated the co-constructed peer coaching model with beginning teachers. As a result, I merge the attributes of effective liberatory design thinking and implementation with the symphonic method to describe effective processes for professional learning. In our case, we focused on inquiry-based instruction; however, the professional learning design is possible to adapt for other focused improvement topics.

The PAR study revealed that for a small group of teachers to co-construct a peer coaching program to support teachers in implementing and experimenting with inquiry-based instructional practices, multiple tenants had to be addressed: (a) co-creating a shared vision, (b) establishing systems and structures that support judgment free experimentation, (c) building relational trust through meaningful listening (d) re-defining peer coaching to be co-constructed, and (e) build teacher capacity for a transfer of power. Each of the tenants were built on throughout the PAR study simultaneously and not linearly, to maintain a clear focus the IST used a symphonic planning framework throughout the PAR study to guide praxis and action steps.

Liberatory Design and Symphonic Planning Phases

The IST developed a design framework for the PAR study using a symphonic planning process. The symphonic planning framework is a five-step process to program, sightread, practice and model, rehearse, and perform. Reviewing extant literature on design frameworks, the symphonic planning framework aligns closely with a liberatory design framework (see Table 17; Anaissie et al., 2021). The liberatory design framework is a creative problem-solving practice that places equity at the center of the process (Anaissie et al., 2021). The framework comprises mindsets and modes. Anaissie et al. (2021) state that the mindsets ground the design process in the stances and values of those involved, while modes provide process guidance and design practice.

The National Equity Project states that change efforts fail to achieve the desired outcomes due to the efforts that:

- Take a traditional linear, hierarchical plan that focuses on strategies, goals, and timelines instead of constructivist adult learning processes.
- Do not employ a deep enough equity lens.
- Create a context of white culture, traditional structures in which participants are unable to engage in authentic critical dialogue; effectively develop relational trust; or think creatively.

Thus, participants often work in haste to propose solutions to problems in which they ignore the complexity of the issues and arrive at simplistic solutions, do not collect and analyze sufficient information to make strategic decisions and fail to take time to experiment with creative and potentially effective solutions (National Equity Project, 2023).

Table 17

Symphonic Connection to Liberatory Design (LD)

Symphonic Phase	Habit	LD Mode	LD Mindsets	PAR Activities and Praxis
Programming	See	Notice and Reflect See the System Imagine	Recognize Oppression Attend to Healing Practice Self-Awareness Exercise Creative Courage	-Conversations with IST -Data Review -Reflective Memos – re-discovering my identity as conductor -Challenging the “tradition” of school
Sight-Reading	See	Prototype Try Reflect Design	Build Relational Trust Focus on Human Values Recognize Oppression Embrace Complexity	-Incomplete conceptual framework of symphonic model -Asset inventory as CLE activity -Unlocking the school schedule
Model and Practice	Engage	Inquire Empathize Reflect	Take Action to Learn Work with Fear and Discomfort	-Collaborative planning of ISPL -Adoption of CLE axioms as meeting norms -Adopt motto: “Think beginning band”
Rehearse	Engage Act	Reflect Try	Recognize Oppression Seek Liberatory Collaboration Work to Transform Power	-Provide teachers time for classroom visits -Provide real-time coaching -Revise actions based on data -Cycle back to model and practice based on feedback
Perform	Act See	Try	Share don’t Sell Exercise Creative Courage	-Co-constructed peer coaching in action

In the PAR study, we used a symphonic framework that I utilized as a band director, which served as a foundation for the IST experiment with solutions in a small, controlled setting in which they experimented with possibilities in small groups. I paired the symphonic approach with the modes and mindsets of liberatory design. The process supported reflection, practice, revisions, and guided rehearsal before full implementation. Known as fail-safe probes, the process of small experimentation is an approach to change efforts in which the IST adopted different stances and approaches to accomplish change (Ridell & Moore, 2015; Snowden, 2007). With the support of myself as the leader and, at the time, collegial participant, the trial and error approach in which we listened carefully to teachers made possible small steps that we could later accelerate.

This approach to developing an inquiry-based peer coaching program provided the IST the freedom to experiment with their ideas and approaches; in other words, they could prototype possible ways to approach the goals. During PAR Cycle One, the IST discovered that developing a peer coaching program using traditional observations and post-conferences was too hasty and not lead to the change the IST desired. Using the fail-safe probe as a guide, the team reflected, adapted, and shifted the design of the peer coaching program. Snowden (2007) states that to change a system such as a school, the school actors need to experiment with probes. He further explains that the probes provide information on the teachers' readiness to learn, the principal's or teacher leaders' skill sets, and the best instructional practice needed for effective change. The fail-safe probes ensured the IST that the barriers faced did not negatively impact the development of the inquiry-based peer coaching program.

Expanded Framework

Throughout the PAR study, the symphonic planning phases guided the design and implementation of the inquiry-based co-constructed peer coaching program. In combination with the liberatory design framework, I have expanded the symphonic planning framework to include the modes and mindsets of the liberatory design framework (see Figure 27) (Anaissie et al., 2021). The revision to the framework now includes a reflection after the performance. In this framework phase, the IST reflected on the implementation of the co-constructed program to look at the organization, find opportunities to transfer power, build relational trust, and develop a vision for the next action cycle.

The framework has two areas of cyclic motion: programming and sightreading represent the first cyclic motion with practice and modeling, and rehearsal is the second. In the programming and sightreading cycle of the design framework, the IST employed fail-safe probes and experimented with the initial design of the peer coaching program. In this phase, the IST discovered that the traditional, hierarchical approach to peer coaching would not work due to the lack of readiness. They recognized that they were metaphorically “getting the cart before the horse”; instead, they needed to slow down the process, cultivate relational trust through listening, and build systems and structures that would support a culture of co-constructed peer coaching. The IST built a plan, experimented, reflected, and revised before re-designing the program and beginning the modeling and practice phase.

The second cyclic motion is critical to practice and modeling as they are rehearsed. In this part of the process, the IST slowed their pace of learning and moved through as many cycles of practice and rehearsals as needed before fully implementing the program in the school. When a band rehearses under the direction of the conductor, musicians take the feedback provided

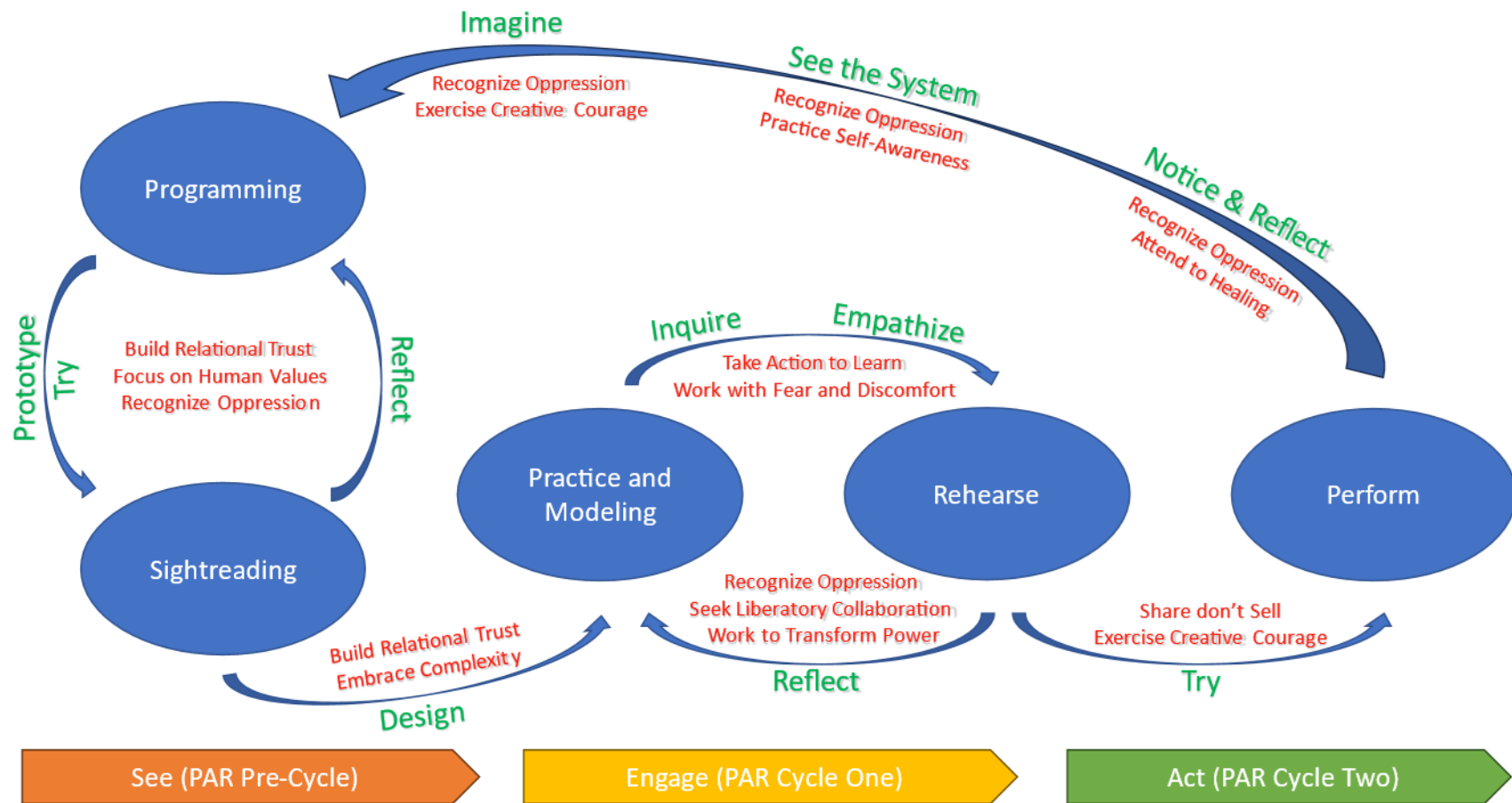


Figure 27. Conceptual framework of symphonic planning and liberatory design.

during rehearsal and practice individually or in small groups before the next rehearsal. Once the ensemble has determined the readiness of a performance, the conductor adds the piece of music to a program for a performance. This relationship between rehearsal and practice is one of experimentation and growth, a relationship the IST wanted to encourage when building teacher capacity in inquiry-based instructional practices.

While we had some performance elements in our process during the three cycles of inquiry and IST members observed in classrooms, the full implementation required more modeling and rehearsal. The critical factor is that we go too fast in professional learning – what Rosa and Toncelli (2022) term drive-by professional development. We expect teachers to “just do it,” but instructional practices with well-established routines are difficult to change. The process is not a sprint, but a long-distance race that requires substantial experimentation. While teachers may change slightly due to a professional learning, fully incorporating new practices – in this case, inquiry-based instruction – takes time. As James (2023), who worked with teachers over two years to incorporate inquiry instruction in high school reports, change requires teacher trusting relationships with the school administrators and other teachers, experiences in inquiry, and carefully designed coaching conversations.

Review of Research Questions

In the research study, I sought to answer the overarching question: How does an Instructional Support Team (IST) design and implement a peer coaching program to support and improve inquiry-based instructional practices of middle school teachers? Additionally, I explored these sub-questions:

1. To what extent does an IST collaboratively design a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?

2. To what extent does an IST implement a peer coaching process to meet specific teacher needs as they implement inquiry-based instruction?
3. To what extent does the involvement in creating and refining a peer coaching program improve the IST team's knowledge, skills, and dispositions in inquiry-based instructional practices?
4. How does involvement in creating and refining a peer coaching program improve the principal's knowledge, skills, and dispositions as an instructional leader?

Overarching Question

In responding to the overarching question, I reviewed the IST meeting design, team member's engagement in the meetings, field notes, and the transfer of practices to the classrooms. We used the CLE format at all IST and staff meetings and included dynamic mindfulness, personal narratives, inquiry-based protocols, and closing narratives. These structures provided teachers time to center themselves on the work, time to collaborate and learn from each other, opportunities to discuss their learning and make connections to prior knowledge, and time to reflect. My goal was to breakdown the hierarchical structure of the school culture and build relational trust so teachers could learn from one another.

One task at the first CLE with the IST was to co-construct norms. The IST had autonomy as they co-constructed the norms, which guided the team throughout the PAR study. At the end of each meeting, the IST reflected on the vision, connecting it to the discussions, progress of the team, and the action steps developed in the meeting. These recursive acts of praxis kept the IST grounded in the work of dismantling the culture of hierarchy. In a June 17, 2022 reflective memo, I wrote, "The IST struggles with the transition of 'top-down' directives to one that is collaborative. Next school year, I need to transition every meeting to use the five axioms of

CLEs to build relational trust and teacher capacity for the peer coaching program to be effective.” This decision changed the culture of our school during the 2022-2023 school year, as teachers shared that their voice is heard and expressed that they felt valued at the closing staff meeting in June 2023.

Sub-Research Questions

The sub-research questions addressed how the IST collaborated and co-constructed a peer coaching program to meet individual teacher needs in inquiry-based instruction. The IST described the process as enlightening and empowering. Each IST meeting provided the IST members with opportunities to collaborate and reflect. Examples of collaboration included designing the IST norms, co-developing in-service professional learning for staff, and co-creating and revising the peer coaching framework. The IST described the work of addressing barriers and modeling what we wanted to see in the classroom.

Throughout the PAR study, the IST reflected on what the teachers at the school needed and worked with me to co-construct in-service professional learning. In the process, the IST was always grounded in what individual teachers needed and responded to them in a timely manner. Through modeling the design and planning of in-service professional learning, the IST had experienced a model on how to implement a co-constructed peer coaching program in planning inquiry-based instruction. The responses to the research questions and the finding inform the implications.

Implications

The results of the PAR study support practice, policy, and research that recognizes the vital need for the principal to collaborate with teachers to support instructional change in a school (Grissom et al., 2021). The PAR study then has immediate implications for practice,

policy, and future research. The decision to use participatory action research to collaborate with the IST to elicit instructional change was effective. Through collaboration with the IST, the team approached change in creative methods (Wong et al., 2021). The IST experienced inquiry in a judgement free space which built their capacity and willingness to implement inquiry in the classroom. The results of the study could have implications for ways to change teacher development and teaching practices in inquiry-based instruction.

Practice

Improved teacher capacity leads to student learning. For principals seeking to develop a culture of inquiry, the principal as an instructional leader must be mindful of providing teachers opportunities to develop their knowledge and skills in a judgement free space. To build teacher capacity in inquiry-based learning, teachers must feel confident in their ability to experiment and have the support needed to plan and implement inquiry-based instruction. To fully understand the needs of teachers, the principal must practice relational listening (Talgam, 2015; Welsch, 1997; Wheatley & Wheatly, 2009). The act of relational listening builds trust between the principal and the teachers they lead.

We need to flip the script on professional learning for teachers and leaders. Most of the workshop trainers or presenters in teacher education and professional development continue to use the banking method (Freire, 2018; Glickman et al., 2014), which limits any learner's creative power. The banking method only serves the oppressors who do not care to see the world revealed or transformed. The PAR study shifted teacher development to one of inquiry and reflection, acknowledging that teachers have not been taught or coached to use inquiry as a means of teaching (Aguilar, 2013).

The study found that working with a small group of teachers built their capacity in three areas: (a) planning inquiry-based instruction, (b) modeling inquiry-based protocols during in-service professional learning, and (c) peer coaching inquiry-based instruction in a co-constructed model. To move away from the banking method of educating students, we must acknowledge, as educational leaders, that continuing teacher education and professional development are deeply rooted in traditional ways of teaching and learning. In the PAR project, we used community learning exchange (CLE) pedagogies for engagement and learning as these pedagogies acknowledge that the learner's past experiences, personal interests, and prior knowledge must be understood for information to be transformed into knowledge (Guajardo et al., 2016).

The PAR project affected teacher instructional practices which can lead to stronger student learning. Teachers shared that experiencing the power of inquiry-based protocols in staff meetings, in-service professional learning, and committee meetings provided them the vision for shifting their lessons. They felt supported in the planning of inquiry-based instruction and having the support in the room during implementation supported them to experiment. While attribution of the factors that shift or impact student achievement is complex, the school had the highest change in their growth index of all schools in the district, adding ten composite points to the school report card. In addition, the school met growth targets for all sub-groups represented in state standardized testing. As a result of the increase of student achievement, the state removed the designation of WPMS as low performing.

Policy

As the study findings indicate, teachers change teaching practices when they are engaged in professional learning that is non-judgmental and collaborative. Teacher professional learning is engrained in the sit-and-get style of teaching has little impact on changing teacher practices.

Instead of budgeting large sums of money to bring in facilitators or sending teachers to conferences, we need to allocate resources to building internal teacher capacity and school leaders to work more systematically in a local context (Grubb & Tredway, 2010; Schneider & Berkshire, 2020). Otherwise, we face dynamic inequality – while we have change efforts, they do not address equity and inequality (Grubb, 2009). A revised allocation of resources would support school leaders in recruiting, developing, supporting, and retaining teachers and creating non-judgmental conditions to deliver inquiry-based instruction (Grissom et al., 2021). That means professional learning should be locally driven based on the evidence of teacher needs, and classroom data, a model rarely used by districts when making policy decisions for teacher development.

To develop a teacher development model that is locally determined, districts need to rethink differentiated professional learning in order to meet the individual needs of teachers and schools. The observational tools and conversation guide supported the principal and IST to engage in differentiated conversations based on data and individual needs (Tredway & Militello, 2024; Tredway et al., 2019). If districts would approach professional learning differently by supporting principals to have local level authority to plan, implement, and support teacher learning in their context, we could change how teachers learn and how principals lead their schools. The PAR results could inform district policy on professional learning and coaching in other middle schools across the state and nation.

The PAR results should and could inform district, state, and national leaders to move away from the one-size-fits-all professional development approach to changing teacher practices. The study provides evidence that collaboration, co-constructed peer coaching, inquiry-based experiences change teacher practices.

Research

The PAR study provides qualitative data for understanding a revised way to provide teachers support through co-constructed peer coaching to increase the use of inquiry-based instructional practices. We adopted the inquiry-driven process found in the performing arts to design and implement a peer coaching program to improve and support inquiry-based instructional practices of middle school teachers. Since the project design posed a challenge of dismantling the long-standing practice of teachers working alone in the school setting, we worked collaboratively – using every voice to perform the symphony successfully (Atwood, 2017; Hadar & Brody, 2010).

Just as an orchestra acknowledges that every individual brings their interpretation, skills, and stories to the performance, we need to engage teachers to take collaborative roles to project the melody (Talgam, 2015). The framing of the symphonic approach to classroom teaching and learning adds to the research base on collaboration and classroom practices and how we construct professional learning communities of practice. The PAR study utilized the CLE pedagogies for professional development which supported teachers in building their understanding of inquiry-based teaching and learning through equitable conversations and meaning-making (Guajardo et al., 2016).

Participatory action research is not only for academic researchers but is a tool for researchers to work collaboratively with those fully engaged in practice (hunter et al., 2013; Kemmis et al., 2014). The PAR results provide substantial data to make changes in educational practice. This PAR study resulted in changes in instructional practices; however, there may not be changes in other contexts. Researchers seeking to change teachers' instructional practices should conduct further research to understand how teachers change instructional practices

through co-constructed learning. To understand if shifting teacher learning to a co-constructed model influences their transfer to practice, researchers should conduct research specific to the desired area of change. The proposed research question is: How does shifting teacher learning to a co-constructed model impact transfer to practice?

Limitations

As I conducted the study, I realized specific limitations of the study. The first is the PAR study included a small number of participants (n=5). Due to the size, other researchers may not generalize the results in their setting. However, when thinking about changing teacher practices, starting with a small group of teachers who are engaged in the work, can become change agents within the school. Participatory action research is a style of research that educational leaders can utilize in their educational setting. Educational leaders can work with a small group of individuals in their context to make improvements because they have investments in teaching and learning. When conducting research, participants should have a high level of participation (Herr & Anderson, 2014). By ensuring a high level of participation from participants and educational leaders, researchers are supporting more effective change.

We developed key insights on how to develop a peer coaching program to support and increase the use of inquiry-based instructional practices. Principals look for new methods of modeling inquiry-based instructional practices in professional learning that promote a culture of experimentation and non-judgement. Engaging teachers in co-constructed peer coaching cycles that begin with professional learning and provide support in the planning and implementation of inquiry-based strategies provided positive results for WPMS. Some strategies from this study may provide other educators with ideas on how to build teacher capacity and transform teaching and learning. Finally, I discuss how I changed as a leader by re-discovering who I was as a

leader, developed capacity in relational leadership, and addressed equity through empowering the learner.

Leadership Development

As I engaged in the PAR study to change teacher practices at a new school, as a new principal, I had to first re-discover who I was as a leader and build my identity as principal. This journey of re-discovery grounded me in relational leadership and a desire to break the hierarchy and inequity of power at the school.

Re-Discovery of Self

At the beginning of the PAR study, I transitioned to the role of principal at a new school within my district. Although this was an exciting change for me, I encountered challenges in finding my identity as a principal. This lack of awareness caused me to be hesitant on making changes to the school schedule and culture my first year. When holding conferences with staff in July 2021, I noted in many conversations that teachers would say “don’t make too many changes, but if see something that needed to be change, change it.” In reflection, they were requesting changes but due to a lack of relational trust, they would not say what changes they believed needed to be examined. Following the advice from colleagues, I did not make changes, this led to a long and trying year as I felt I was leading someone else’s school.

Through the PAR study I re-discovered myself as a leader. At the beginning of my doctoral studies, we created a digital story of our journey and the events that shaped who we were, this video became instrumental in guiding my re-discovery of who I was. In addition to the digital story, we wrote a note to our future selves that we read with our coaches toward the end of our doctoral studies. This letter pointed me back to the digital story and my challenge to lead like a conductor. The final event of the PAR study that solidified my identity as a principal was

the initial CLE with the instructional support team (IST). In the initial CLE, the IST connected their journey to the performing arts and expressed a desire to co-construct a peer coaching program using the strategies found in the performing arts. The re-discovery of my identity as a conductor guided the PAR and how I led the school moving forward.

I felt rejuvenated and worked with the IST to plan the opening staff meeting for the 2022-2023 school year. In my reflective memo on August 22, 2022, I wrote:

I have been anxious about today as I wanted to set the tone for the year and really emphasize our new mission and vision for our school. This summer, I have pushed my teams to revamp, revise, and refocus on Leadership, Inquiry, and Community Service; Inquire, Lead, Serve. I decided to run the opening staff meeting as a CLE to ensure that all staff was provided opportunities to have a voice, share their experiences, and learn from each other.

The CLE protocols aligned with my identity and desire to breakdown the hierarchical structure at the school so that every voice regardless of years of experience was heard. The CLE protocols provided opportunities for me to join teachers in dialogue and develop my skills in relational leadership.

Relational Leadership and Transfer of Power

In transitioning to a new school, I had to build relational trust with the teachers and staff. At first, this was difficult as staff members were adapting to a new leadership style that was different from the prior administrator. In conversation with an IST member, she shared that they were told what to do, how to stand, and were afraid to question any directive. Another teacher called the professional learning community (PLC) room the ‘torture room.’ To address healing, we turned the PLC room into a staff lounge to provide teachers a space to escape throughout the

day and held PLCs in the teachers' room. Teacher felt more comfortable having deep conversations in their space; the imagery of hierarchy lessened as I gave control of space back to them.

By entering the teacher's space and encouraging them to set the agenda and lead were the first steps in nurturing trust. By becoming an active participant in their meetings, teachers were more open and honest when addressing student achievement. This transfer of power provided teachers the space to grow and experiment with creative solutions. To ensure the transfer of power did not result in a grade level chair becoming a 'talking head,' I worked with the IST to prepare teacher understanding of the CLE axioms and adopt them as the schoolwide norms for meetings. We placed the axioms at the top of every agenda and opening PowerPoint slide as a reminder of the importance of the people in the room and our vision.

The CLE axioms became the anchor that guided every meeting at WPMS. This focus on self-care, storytelling, and support provided the vessel to build relational trust to build sustainable and meaningful change in our praxis. As the CLE axioms became embedded in the school culture, teachers and support staff began to learn from each other and the departmental silos that were traditionally observed began to crumble. This de-privatization of practice accelerated teacher learning and our willingness to change through the experiences of each other (Tredway & Militello, 2024).

The development of a peer coaching program was dependent on building relational trust within the building. Before teachers would become vulnerable, I had to demonstrate that I was willing to do the same. I worked with the IST to develop in-service professional learning using inquiry-based strategies and protocols and allowed teachers to lead. This was not an act of

‘passing the buck’ but one that allowed me to join teachers in their learning. I wrote about this experience in my reflective memos on September 7, 2022:

I joined a table and participated in the ISPL with my staff, teachers expressed that they appreciated the fact that I “became one of them (personal conversation)” and had another teacher who joined us this year from Organ say “I have never seen admin join in during PD.” I believe that admin have to join teachers in their ISPL, we learn from each other and through the conversations that are had around the room. During my time with the table I learned more about their experiences as teachers, how education is different around the country. It also provided me time to share my experiences as a teacher.

Administrators often neglect or forget how it feels to be a teacher in a classroom, or how it feels to be subjected to sit and get ISPL.

By being an active participant in professional learning, I believe that I bridged the divide of mistrust caused by prior micro-management and transferred power back to the WPMS teachers.

I have gained confidence in myself through my doctoral journey. I often describe myself as a dreamer, one with big ideas and passion to provide students a better educational experience than one I had. My confidence has at times faltered, but this doctoral journey gave me opportunities to explore my identity and see it as a strength. The Project I⁴ coach empowered me to embrace my identity to become a change agent for the school.

Conclusion

The doctoral journey has been challenging and rewarding for the school and myself. The desire to provide students with an education that was more than lecture, copy notes, and repeat has guided my approach to teaching. The dissertation provided the foundation to enact that change at WPMS – a change that helped teachers move beyond the banking method of education

and transferred the power of learning and meaning-making to their students. This is what drives me – to work with teachers to create meaningful learning experiences for students.

Lecture, copy notes, and repeat; this is how I remember school. Every day we would walk into class, listen to a lecture, copy the teacher's notes, and repeat the process in the preceding courses until the last course of the day. Only in this final period of the day could my peers and I work collaboratively and become part of the learning process. The course was concert band, and the experiences were life-altering.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office 252-744-2914 · Fax 252-744-2284 ·
rede.ecu.edu/umcirm/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: [Carl Cruthis](#)
CC: [Matthew Militello](#)
Date: 3/29/2022
Re: [UMCIRB 21-001647](#)
Tacet Leadership

I am pleased to inform you that your research submission has been certified as exempt on 3/29/2022. This study is eligible for Exempt Certification under category # 1 & 2ab.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
CALL Survey(0.02)	Surveys and Questionnaires
Consent Form(0.03)	Consent Forms
Email(0.01)	Recruitment Documents/Scripts
Interview Protocol(0.01)	Interview/Focus Group Scripts/Questions
Observation Tool(0.01)	Data Collection Sheet
Purposal(0.01)	Study Protocol or Grant Application

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: CITI TRAINING CERTIFICATE

		Completion Date 31-Dec-2020 Expiration Date 31-Dec-2023 Record ID 40143516
This is to certify that:		
Carl Cruthis		
Has completed the following CITI Program course:		Not valid for renewal of certification through CME.
Human Research (Curriculum Group)		
Group 2.Social / Behavioral Research Investigators and Key Personnel (Course Learner Group)		
1 - Basic Course (Stage)		
Under requirements set by:		 Collaborative Institutional Training Initiative
East Carolina University		
Verify at www.citiprogram.org/verify/?w4a4ebb33-d08e-4963-9969-52a497368c42-40143516		

APPENDIX C: DISTRICT APPROVAL



Board of Education
Bob Williams, Chairman • Jeff Hudson, Vice-Chairman
Bill Lanier • Melissa Oakley • Ken Reddic • Joseph Speranza • Eric Whitfield

ONSLOW
COUNTY
SCHOOLS



Superintendent
Barry D. Collins, Ed.D.

December 6, 2021

To Whom It May Concern:

Onslow County Schools recognizes the benefits of participating in relevant, well-designed research studies proposed by qualified individuals. Approval for conducting such studies is based primarily on the extent to which substantial benefits can be shown for Onslow County Schools and its mission of educating students. The purpose of this letter is to notify you of the approval to use conduct your dissertation study titled, "TACET LEADERSHIP: ORCHESTRATING TEACHER LEADERSHIP TO DEVELOP A PEER COACHING PROGRAM FOR INQUIRY-BASED INSTRUCTIONAL PRACTICES" with participants in our schools. We also give permission to utilize the following spaces at Northwoods Park Middle School to collect data and conduct interviews for his dissertation project: in-service professional development, IST meetings, communities of practice, and site and classroom observations.

The project meets all of our school/district guidelines, procedures, and safeguards for conducting research on our campus. Moreover, there is ample space for Carl Cruthis to conduct his study and his project will not interfere with any functions of the school. Finally, the following conditions must be met, as agreed upon by the researchers and STEM teachers, and district office staff:

- Participant data only includes information captured from the state data collection strategies.
- Participation is voluntary.
- Participants can choose to leave the study without penalty at any time.
- Any issues with participation in the study are reported to the school administration in a timely manner.
- An executive summary of your findings is shared with the school administration once the study is complete.

In addition to these conditions, the study must follow all of the East Carolina University IRB guidelines.

We are excited to support this important work.

Respectfully,

Dr. Barry Collins
Superintendent, Onslow County Schools

APPENDIX D: INFORMED CONSENT FORM: ADULTS



Informed Consent to Participate in Research

Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: Tacet Leadership: Orchestrating Teacher Leadership to Develop a Peer Coaching Program for Inquiry-Based Instructional Practices

Principal Investigator: Carl Cruthis

Institution, Department or Division: East Carolina University, Department of Educational Leadership

Address: 148 Old Millstone Landing Lane, Sneads Ferry, NC 28540

Telephone #: 336-471-8109

Study Coordinator: Dr. Matthew Militello

Telephone #: 252-328-6131

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

Why am I being invited to take part in this research?

The purpose of this participatory action research (PAR) is to create a peer coaching program to build the internal capacity of middle school teachers in using inquiry-based instructional practices. You are being invited to take part in this research because you are a respected leader of your peer group and a seating member of the Instructional Support Team, Building Leadership Team, PBIS and/or AVID committees, or teach in the area of STEM. The decision to take part in this research is yours to make. By doing this research, we hope to learn how a group of teachers can collaboratively create a peer coaching program that will support the unique needs of teachers in incorporating inquiry-based instructional practices in the STEM classroom.

If you volunteer to take part in this research, you will be one of about eight people to do so.

Are there reasons I should not take part in this research?

There are no known reasons for why you should not participate in this research study.

What other choices do I have if I do not take part in this research?

You can choose not to participate.

Where is the research going to take place and how long will it last?

The research will be conducted at Northwoods Park Middle School, Jacksonville, North Carolina. You will need to come to the middle school, room 2, approximately ten times during the study. The total amount of time you will be asked to volunteer for this study is ten hours over the next eighteen months.

What will I be asked to do?

If you agree to participate in this study, you may be asked to participate in an interview and/or observation throughout the research project. The interviews and/or observations may be recorded in addition to handwritten notes by the research team members. All of the interview questions will focus on your experiences with peer coaching and inquiry-based instructional practices within the STEM classroom.

What might I experience if I take part in the research?

We don't know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We don't know if you will benefit from taking part in this study. There may not be any personal benefit to you but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?

We will not be able to pay you for the time you volunteer while being in this study.

Will it cost me to take part in this research?

It will not cost you any money to be part of the research.

How will you keep the information you collect about me secure? How long will you keep it?

The information in the study will be kept confidential to the full extent of the law. Confidentiality will be maintained throughout the data collection and data analysis process. Consent forms and data from surveys, interviews, and focus groups will be maintained in a secure, locked location and will be stored for a minimum of three years after completion of the study. No reference will be made in oral or written reports that could link you to the study.

What if I decide I don't want to continue in this research?

You can stop at any time after it has already started. There will be no consequences if you stop and you will not be criticized. You will not lose any benefits that you normally receive.

Who should I contact if I have questions?

The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at 336-471-8109 (weekdays, 7:00 am- 4:00 pm) or email cruthisc19@students.ecu.edu.

If you have questions about your rights as someone taking part in research, you may call the Office of Research Integrity & Compliance (ORIC) at phone number 252-744-2941 (weekdays, 8:00 am – 5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director of the ORIC at 252-744-1971.

I have decided I want to take part in this research. What should I do now?

The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

Participant's Name (PRINT)

Signature

Date

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above and answered all of the person's questions about the research.

Person Obtaining Consent (PRINT)

Signature

Date

APPENDIX E: INTERVIEW PROTOCOL

Thank you for taking time from your busy schedules to meet with me today. I appreciate your willingness to participate in this focus group interview and will limit the time to one hour.

My name is Carl Cruthis. I will serve as the moderator for the interview. I am conducting research as a graduate student at East Carolina University. The interview is part of a study to learn how a principal and the Instructional Support Team can design and implement a peer coaching program to support and improve instructional-based instructional practices of middle school STEM teachers.

The purpose of this participatory action research project is design and implement a peer-coaching program to support and improve the instructional capacity in Inquiry-based Teaching and Learning (I:T&L) of middle school STEM teachers.

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Disclosures:

- Your participation in the study is voluntary. It is your decision whether or not to participate and you may elect to stop participating in the interview at any time.
- The interview will be digitally recorded in order to capture a comprehensive record of our conversation. All information collected will be kept confidential. Any information collected during the session that may identify any participant will only be disclosed with your prior permission. A coding system will be used in the management and analysis of the focus group data with no names or school identifiers associated with any of the recorded discussion.
- The interview will be conducted using a semi-structured and informal format. Several questions will be asked about both the individual knowledge and skills gained and the organization practices used. It is our hope that everyone will contribute to the conversation.
- The interview will last approximately one hour.

TURN RECORDER ON AND STATE THE FOLLOWING:

“This is Carl Cruthis, interviewing NAME(S) on *(Date)* for Tacit Leadership: Orchestrating Teacher Leadership to Develop a Peer Coaching Program for Inquiry-Based Instructional Practices”

Please describe the NAME ARTIFACT your group created at the learning exchanges to represent NAME THE LEARNING EXCHANGE TASK/ACTIVITY.

How has your participation in this PAR project influenced your knowledge, skills, and understanding in inquiry-based instruction?

How did your participation on the instructional support team and in the project enhance your understanding of inquiry-based instructional practices?

Describe what leadership actions and conditions you have created in your work environment for your colleagues to receive peer coaching on their specific needs?

Describe one of your peer coaching cycles, and it provided support and targeted coaching to a colleague.

How will you sustain the work of peer coaching inquiry-based instructional practices beyond me when I am no longer leading the PAR project?

