

Influencing Organizational Culture: A Distributed Leadership Approach to Professional Learning

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The purpose of this research project was to investigate the relationship between the implementation of a distributed leadership model of professional development and faculty trust in colleagues. Data were collected from the following sources: Hoy & Tschannen-Moran's (2003) Omnibus-T scale and semi-structured focus group interviews. A series of ANOVA were performed to analyze the survey data. A priori codes, open codes, in vivo codes, and logic model analytics were used to examine focus group interview data. The findings of this study revealed a positive significant relationship between participation in the professional learning model and trust in colleagues. The results of this study confirm and expand the research supporting the positive impact of effective professional development and distributed leadership practices on trust in schools.

Keywords: distributed leadership, faculty trust in colleagues, professional development, mixed-methods, case study, trust in schools, middle school, sequential-explanatory design, organizational culture, professional learning community

BACKGROUND AND SIGNIFICANCE OF THE STUDY

Providing each student with a quality equitable education is the ultimate responsibility of education leaders (Leithwood, 2021). Subsequently, school leadership practice is a prevalent research topic, especially as it relates to educational improvement (Youngs, Kim, & Clark, 2021). Due to the positive impact that teachers have on student achievement (Hattie, 2018), the need for improvement of teacher instructional practices tends to be a direct focus of school reform efforts (Darling-Hammond et al., 2017).

A notable shift from a traditional "hierarchical" approach to leadership to an increase in teacher leadership has gained momentum in recent years. The concept of distributed leadership calls for shared responsibility among members of a faculty in capacities such as decision making and professional learning (Spillane & Mertz, 2015). The core concepts related to distributed leadership highlight the importance of teacher leadership in successful educational reform leading to increased organizational trust, a collaborative culture, and student academic success (Angelle, 2010; Goddard et al., 2004; Harris, 2015; Spillane & Mertz, 2015).

Teacher trust in colleagues is a key component of school culture impacting the learning environment (Weiner & Higgins, 2016); yet, there are many areas of this research left to be explored. Adams and Forsyth (2013) recommended that more research is needed on policies designed to build capacity, strengthen collective trust, and support sustainable school reform. Moreover, Daly and Finnigan (2012) proposed that further investigation was needed on the relationship between trust and organizational performance

outcomes, stating that empirical research analyzing the relationship between organizational trust and teacher practice would enhance the existing literature. Subsequently, some unanswered questions still existing on collegial trust in schools can be further explored through this study.

PURPOSE OF THE STUDY

This case study was designed to investigate the influence of the District Professional Learning Community (DPLC) model of professional learning during the first two years of implementation in a large urban school district. The DPLC structure used a distributed leadership approach to deliver literacy strategies to all teachers across the school district. Unlike a train-the-trainer model, the DPLC model is designed to create ownership of the professional learning by school teams as they make choices about the implementation of the learning that best meets the needs of their school. Nelson and Cudeiro (2009) describe this distributed leadership model with the criteria “builds expertise in all staff through repeated cycles of high-quality learning, followed by opportunities for practicing, receiving feedback, observing colleagues, ongoing professional reading, and peer discussion about the practices, including examining the impact of the practices on student learning by looking at student work and reviewing student performance data.”

In addition to the professional learning focus of interdisciplinary literacy instruction, this distributed leadership model offers potential for impacting trust in schools. This study specifically investigates the dependent variable, teacher trust in colleagues, defined as “the faculty’s belief that teachers can depend on each other in difficult situations and that teachers can rely on the integrity of their colleagues” (Tschannen-Moran and Hoy, 1998, p. 6). In order to investigate the influence of the DPLC model of professional learning on teacher perceptions of trust among colleagues, the following research question was developed: In what ways and to what extent is faculty trust influenced by participation in DPLC model of professional learning?

METHODS

In this mixed methods case study, sequential-explanatory design was utilized to allow for data collected from the first quantitative phase of the study to inform the qualitative phase. Quantitative and qualitative data were then analyzed through the synthesis phase.

During the quantitative phase of this study, all instructional faculty members of Central Florida Middle School (CFMS), 54 participants, were invited to participate in Hoy & Tschannen-Moran’s (2003) Omnibus-T scale (see Appendix A), a 26-item Likert survey. The survey was administered on three separate occasions over a two year period. The average response rate among the three survey administrations was 44.4%.

An analysis of variance (ANOVA) was utilized to compare the amount of variance of the dependent variable, faculty trust in colleagues, over the course of three survey administrations. Additional two-way ANOVAs were used to compare the amount of variance between groups using the moderator variables: years of teaching experience, subject area taught, gender, and DPLC Site Team membership. Specifically, the interaction effects are reported for each moderator variable with time as the corresponding factor.

In the qualitative phase of the study, interview questions (see Appendix B) were utilized during two separate semi-structured focus group interviews. The first focus group interview consisted of seven instructional faculty members including teachers and instructional coaches who directly attended the district trainings and were charged with leading the literacy professional learning on their campus (DPLC Site Team members). The second focus group interview consisted of five teachers representing a variety of content areas and grade levels at the school. These focus group participants were recipients of the professional learning, designed and delivered by their peers. Participants were selected using stratified random sampling, categorizing by subject area taught. The focus group questions guided teacher discussions in order to capture their perceptions about collaborative culture, instructional leadership opportunities, professional development opportunities, literacy support, and impact of professional

development sessions. Additional themes and patterns were surfaced from the focus group interview data, connecting the discussions to faculty trust in colleagues.

Focus group interview data were examined using a priori codes derived from the research question and underlying literature. Additional open codes and in vivo codes were generated based on patterns and themes discovered while examining the data. After the reporting of coding and emergent themes, findings were utilized to report on the applicability to the question. Logic model analytics were then used to develop a conceptual framework for the analysis of the qualitative data.

The researcher utilized the following credibility techniques in order to promote trustworthiness in the qualitative phase analysis: member-checking, triangulation, negative case analysis, and thick rich description (Creswell & Plano Clark, 2018). By describing a phenomenon in sufficient detail, the researcher can evaluate the degree to which the conclusions drawn are transferable to other times, settings, situations, and people (Lincoln & Guba, 1985). Therefore, thick rich description was employed throughout the reporting of analysis of data included in this chapter. Additionally, the researcher utilized triangulation in order to seek convergence and corroboration by comparing findings from qualitative data with quantitative data (Creswell & Plano Clark, 2018, p.290). Following is a discussion of the processes utilized for member checking and negative case analysis.

When utilizing member checking, the researcher contacted one key participant from each focus group to review summaries of key findings. The key participants provided feedback on the accuracy of the findings. The key participant from focus group one responded to the inquiry for feedback with the following, “Good morning, I believe you captured themes that we as a school were reflective about regarding the DPLC process. Awesome Job.” The key participant from focus group one responded, “Yes, I think your identified themes represent our conversation. Thank you for the opportunity to share my thoughts on your analysis.”

Moreover, the researcher increased credibility of the data analysis by using negative case analysis. This involves searching for and discussing elements of the data that do not support or appear to contradict patterns or explanations that are emerging from data analysis (Patton, 1999). In the context of this study, the researcher sought to identify data attained from the focus group interviews that did not fit into the patterns and themes that framed the analysis. Analysis of deviant cases may revise, broaden and confirm the patterns emerging from data analysis.

After reviewing transcripts for negative cases of each theme, one revision emerged. Theme 3 was originally named teacher collaboration. Through the use of negative case analysis this theme was broadened to encompass all supports that teachers offer each other. This resulted in the title of Theme 3 becoming Teachers support each other. These revisions are outlined in Appendix C.

Through the use of the quantitative and qualitative data collection tools leveraged in this study, a rich data analysis and synthesis of findings were possible. During the synthesis phase, a joint data display was utilized to represent the connected integration of the quantitative and qualitative phases. This type of data display represents specific links between the two connected databases to help visualize how the qualitative findings enhance the understanding of the quantitative results. The researcher applied two credibility techniques, cross-data triangulation and negative case analysis, with the purpose of minimizing threats in the synthesis phase of the analysis. (Creswell & Plano Clark, 2018).

Triangulation, a credibility technique designed to seek convergence and corroboration by comparing findings from qualitative data with quantitative data, was utilized (Creswell & Plano Clark, 2018). In the context of this study, the researcher compared findings from the quantitative survey subsets to data obtained in the focus group interviews. Triangulation has been addressed within the analysis throughout the synthesis section. The use of joint data displays signified the depth of triangulation that occurred for each research question.

The researcher minimized validity and reliability threats by using the process of negative case analysis. This involved searching for and discussing elements of the data that did not support or appear to contradict patterns or explanations that were emerging from data analysis (Patton, 1999). Similar to the process used in the qualitative phase, the researcher analyzed quantitative and qualitative data sets, searching for deviant cases. The discovery of such cases may result in the revision of conclusions drawn about the data. In the

context of this study, the researcher sought data attained from the survey results and focus group interviews that did not concur with synthesis of the results presented. Appendix D illustrates the revisions that occurred before the application of the final synthesis of findings for the research question.

DISCUSSION OF THE FINDINGS

Schein's theoretical framework of organizational culture provided a context for the design and approach in the presented research. Schein defined organizational culture as "a pattern of basic assumptions, invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (p. 7). The concept of organizational culture has evolved over the past three decades, though Schein's framework continues to be a foundation for theory on organizational culture. Schein (1988) described three levels of organizational culture: artifacts, values, and underlying assumptions.

According to Schein, artifacts are the visual organizational structures and processes that represent the organization to those on the outside. Schein explained that artifacts can be difficult to decipher as they are only a surface level view of the organization. In a school culture, this could include the physical school building, classroom set-up, how the student and faculty dress, mascot, technology, artwork, etc.

The next level of an organization's culture, "values," reaches a deeper layer. Values represent the organization's philosophies, espoused goals, ideals, and norms (Schein, 1988). Values are what the organization claims to represent. In most cases, an organization's values are developed and established by the leaders of the organization (Schein, 1988). Some examples of values in a school culture include the school mission statement, schoolwide goals for student achievement, school district goals, and collaborative team norms.

The deepest level of organizational culture, according to Schein (1988), is underlying assumptions. Underlying assumptions are the truths told by the established members of the organization. They represent the beliefs of members about each other and the organization as a whole (Schein, 1988). For example, when a new school district initiative is introduced and disseminated to each school, the underlying assumptions of each school and individual faculty members may be different, which will in turn affect the success of the initiative.

This study was conducted to investigate a cultural aspect of an organization: faculty trust in colleagues. The data acquired through this study were intended to test the relationships between the values and underlying assumptions of a school. The researcher sought to determine how the school's culture was being influenced during the implementation of this distributed leadership model for professional learning. Through the developed research question, the researcher attempted to disclose whether the espoused beliefs of the DPLC distributed leadership model impacted organizational trust.

Research Question: *In what ways and to what extent is faculty trust influenced by participation in DPLC model of professional learning?*

The findings resulting from the research question indicated a positive significant relationship between faculty trust in colleagues and participation in the DPLC model of professional learning. Faculty trust in colleagues experienced a statistically significant increase throughout the course of the first two years of implementation (see Appendix E). Furthermore, statistical significance in the area of Faculty Trust in Colleagues was found based on subject area taught. The mean difference between ELA/Reading and Math/Science, as well as the difference between ELA/Reading and all other subject areas (Social Studies, Electives, and Exceptional Student Education) was revealed. ELA and Reading teachers were found to have higher increases of trust in colleagues than all other subject area teams (see Appendix F). Though the results of the remaining ANOVA tests did not show statistical significance, there was an increase of mean for all moderator variables in this study: time, subject area taught, gender, years of teaching experience, and DPLC Site Team membership.

The qualitative portion of data analysis revealed themes and connected information to several of the quantitative findings. The researcher developed seven a priori codes based on the research questions. Appendix G details the pre-established codes developed in order to encompass the key components of each research question and extant literature.

Six additional open codes naturally emerged during data analysis. The following open codes were established and utilized for data analysis: (a) barriers to DPLC implementation, (b) content area insight, (c) opening up classroom practice (d) feelings about school-based professional development, (e) student ownership of literacy strategies, and (f) feelings about literacy. Additionally, in vivo codes were utilized to identify specific statements that strongly represented established coding categories.

In vivo codes were then utilized to highlight specific quotations from the focus group interview transcripts that exemplified the established a priori and open codes. Furthermore, in vivo codes, along with a priori and open codes were utilized to identify emergent themes in the qualitative data. Appendix H describes all a priori and open codes, the frequencies in which they appeared, and in vivo code examples of each.

Three major themes emerged from the focus group interview data: (a) Opportunities for professional growth (b) Teachers support each other (c) Positive feelings about DPLC Implementation. Subcategories supported by In Vivo Codes allow for a deeper look at the details of each established theme (see Appendices I, J, K).

Through the use of joint data display in the synthesis phase, qualitative support was provided for all statistically significant results as well as additional areas (see Appendix L). Findings from the survey and emergent themes from focus group interview analysis were synthesized in order to present the following conclusions: (a) teachers reported increase in trust and improved schoolwide culture, (b) teachers reported increased academic expectation for literacy instruction across content areas, (c) DPLC Site Team reported appreciation for being the chosen leaders of this professional learning, (d) high levels of trust and comradery were reported among the staff, (e) teachers reported trust in the professional development being delivered by colleagues, (f) ELA and Reading teachers reported believing in and trusting the learned literacy strategies taught by their peers, (g) Math teachers struggled with seeing value in the learned strategies, (h) elective teachers needed more support with understanding how to apply literacy content learned, (i) DPLC Site team members reported trusting each other and working well together, and (j) teachers reported value in co-creating lessons with each other during professional development sessions.

These conclusions align with extant literature regarding behaviors associated with distributed leadership and their linkage to increased trust (Bryk & Schneider, 2003; NSDC, 2000). Teacher collaboration and sharing of knowledge of skills are factors that increase faculty trust. Specifically, the structure of professional learning communities has become a vehicle for engagement in distributed leadership (McBrayer et.al, 2018). The impact of professional learning communities, reinforces the concept that collaboration is the key to a successful school (Dufour 1998, 2006, 2015). The importance of collective commitment of the faculty is evident through a progression of key actions including collaborating with colleagues, using data to create common goal(s), identifying competencies that are necessary in helping staff achieve goal(s), designing purposeful, goal-oriented strategies and programs to develop those competencies; and sustaining commitment to those strategies and programs until staff display ownership of intended knowledge and skills (Dufour, 2006). These key components of trust and effective professional learning surfaced through the themes in this study.

When facilitating professional development or learning from colleagues, teachers feel the highest sense of efficacy at work (Gray, Kruse, Tarter, 2017). Moreover, principal behaviors associated with distributed leadership have the potential for increasing trust in a school (Goddard et al., 2004; Tschannen-Moran & Gareis, 2015). When principals value staff members' ideas and include them in decision-making, vulnerability is present and a trusting environment is being built (Brewster & Railsbeck, 2003; Mullen & Jones, 2008). Teachers' input in decision making contributes to faculty satisfaction with the school's climate and, in turn, impacts the school culture (Gray, Kruse, Tarter, 2017).

SIGNIFICANCE AND IMPLICATIONS FOR PRACTICE

The findings of this study have implications for many educators who impact and are impacted by professional development in a school system. Furthermore, the implications speak to the influence of school culture on teacher perceptions of professional learning. The results of this study provide valuable insights into the many facets of a distributed leadership structure for professional learning that allow for the growth of instructional leaders, school ownership of learning, collaboration among colleagues, and teacher implementation of research-based practices. Moreover, this study provides implications for the influence of leadership decisions on school culture. Specifically, allowing teachers opportunities to be involved in shared decision making about instruction, engaging in mastery and vicarious experiences, and leading professional development has the potential to impact faculty trust. These findings support the engagement in professional learning community structures that foster ongoing collaboration grounded in educator's practice. Subsequently, these actions have the potential to increase pedagogical experience and authentic classroom implementation of research-based practices.

In the current political and social climate, the DPLC distributed leadership model has the potential to serve as a vehicle for bringing relevant, timely professional learning to all stakeholders. Pertinent topics such as culturally responsive practices and social and emotional learning strategies can become embedded into schools and classroom instruction through this distributed leadership model.

RECOMMENDATIONS FOR FURTHER RESEARCH

Future research has the potential to build on the findings in the present study. These findings can lead to investigation of program longitudinal sustainability and increased generalizability in other settings and situations. Due to the time constraints of this study, only the first two years of a three-year program were studied. To expand this study, researchers could follow up on this case study at Central Florida Middle School to investigate longitudinal implementation of literacy learning, utilization of the DPLC model, and faculty trust.

Additionally, this mixed-methods case study was limited to one middle school in a large urban school district. This study has the potential to be replicated and expanded in multiple ways. To expand this study, researchers could:

1. Utilize a similar methodology with a different grade level band (elementary, K-8, or high school) within a school district beginning implementation of the DPLC model.
2. Utilize a similar methodology with a different middle school in the same school district.
3. Expand the quantitative phase of study to an entire school district implementing district-wide literacy learning through the DPLC model.

This study focused on teacher perceptions of cultural aspects of their school environment. The existing research supports the impact that organizational trust has on student achievement. Future researchers can conduct a longitudinal follow-up study tracking the impact that faculty trust has on student achievement at Central Florida Middle School. Furthermore, this connected research could expand to exploring trends in student achievement within school districts that have implemented the DPLC model of professional learning.

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APPENDIX A: OMNIBUS TRUST SCALE

	Somewhat Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Directions: Please indicate your level of agreement with each of the following statements about your school from strongly disagree to strongly agree . Your answers are confidential.						
1. Teachers in this school trust the principal.	①	②	③	④	⑤	⑥
2. Teachers in this school trust each other.	①	②	③	④	⑤	⑥
3. Teachers in this school trust their students.	①	②	③	④	⑤	⑥
4. The teachers in this school are suspicious of most of the principal's actions.	①	②	③	④	⑤	⑥
5. Teachers in this school typically look out for each other.	①	②	③	④	⑤	⑥
6. Teachers in this school trust the parents	①	②	③	④	⑤	⑥
7. The teachers in this school have faith in the integrity of the principal.	①	②	③	④	⑤	⑥
8. Teachers in this school are suspicious of each other.	①	②	③	④	⑤	⑥
9. The principal in this school typically acts in the best interests of teachers.	①	②	③	④	⑤	⑥
10. Students in this school care about each other.	①	②	③	④	⑤	⑥
11. The principal of this school does not show concern for the teachers.	①	②	③	④	⑤	⑥
12. Even in the difficult situations, teachers in this school can depend on each other.	①	②	③	④	⑤	⑥
13. Teachers in this school do their jobs well.	①	②	③	④	⑤	⑥
14. Parents in this school are reliable in their commitments.	①	②	③	④	⑤	⑥
15. Teachers in this school can rely on the principal.	①	②	③	④	⑤	⑥
16. Teachers in this school have faith in the integrity of their colleagues.	①	②	③	④	⑤	⑥
17. Students in this school can be counted on to do their work.	①	②	③	④	⑤	⑥
18. The principal in this school is competent in doing his or her job.	①	②	③	④	⑤	⑥
19. The teachers in this school are open with each other.	①	②	③	④	⑤	⑥
20. Teachers can count on parental support.	①	②	③	④	⑤	⑥
21. When teachers in this school tell you something, you can believe it.	①	②	③	④	⑤	⑥
22. Teachers here believe students are competent leaders.	①	②	③	④	⑤	⑥
23. The principal doesn't tell teachers what is really going on.	①	②	③	④	⑤	⑥
24. Teachers think that most of the parents do a good job.	①	②	③	④	⑤	⑥
25. Teachers can believe what parents tell them.	①	②	③	④	⑤	⑥
26. Students here are secretive.	①	②	③	④	⑤	⑥

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APPENDIX B: FOCUS GROUP INTERVIEW QUESTIONS

- Background information on each participant: Content area taught, grade level taught, years of teaching experience.
- What has your involvement been in the DPLC initiative at your school?
- What trainings and supports have you received regarding the DPLC content? By whom? By what methods? Quality of the training.
- How do you feel about the implementation of DPLC at your school thus far? Explain.
- Do you feel that the content learned from the DPLC is what is best for students? Explain.
- Do you believe the DPLC content will improve student literacy at your school? Why or why not?
- Have you noticed improved literacy practices by your students since DPLC content has been rolled out? Explain specifics: why or why not, which practices, what improvements, what data supports your findings?
- Do you believe the content learned from DPLC is relevant to your job? Explain.
- Do you see value in the content learned from DPLC? Explain.
- How has the DPLC content impacted your own instructional practices?
- Do you feel that being involved in DPLC content has improved your instructional practices? Explain.
- Has DPLC implementation changed the culture of your school? If yes, how? If no, why not? Explain.
- Do you feel that there is anything that can be done to improve the implementation of DPLC at your school?

APPENDIX C

TABLE 75
REVISIONS OF THEMES BASED ON NEGATIVE CASE ANALYSIS

Themes	Negative Cases (NC)	Explanation of NC	Adjusted Themes
Theme 1: Positive Feeling about DPLC Implementation	But even though in our department (ELA) we only had three new teachers out of nine, all of us were still doing totally different things and we had a lot of misconceptions about the different phases of close reading.	No negative cases were found. This theme encompasses all positive feelings about DPLC implementation.	Theme 1: Positive Feeling about DPLC Implementation
Theme 2: Opportunities for Professional Growth	None found	No negative cases were found. This theme encompasses all opportunities for professional growth.	Theme 2: Opportunities for Professional Growth
Theme 3: Teacher Collaboration	We know that's a trustworthy source (other colleagues) who's looking out for the best interest of the teacher and the students. So I think with that aspect it's kind of just improved our school culture, at least amongst the staff.	This theme was broadened to encompass more than collaboration. Multiple facets of support are evident and included through this expanded theme.	Theme 3: Teachers Support Each Other

APPENDIX D: REVISION OF SYNTHESIS BASED ON NEGATIVE CASE ANALYSIS

**TABLE 79
REVISIONS OF SYNTHESIS BASED ON NEGATIVE CASE ANALYSIS**

Synthesis of Findings	Negative Cases (NC)	Explanation of NC	Adjustment to Synthesis
ELA and Reading teacher report believing in and trusting the learned literacy strategies taught by their peers	But even though in our department (ELA) we only had three new teachers out of nine, all of us were still doing totally different things and we had a lot of misconceptions about the different phases of close reading.	This case does not discount the appreciation for the PD and collaborative opportunities. It just points out that the department is working out a consensus for close read understanding because they value “getting it right.”	No adjustment needed
Teachers reported increase of trust and improved schoolwide culture	One problem or one thing that came across that I didn’t like is I’m going to say about halfway through the year we were issued standard annotation markings (initiated by principal)	The case of the schoolwide annotation marks does illustrate a perceived misstep on the part of the principal; however, overall there are many more cases of success with establishing trust at the school and in the DPLC process by the principal and his decisions.	No adjustment needed
Math teachers struggle with seeing value in the learned strategies	I’m teaching algebra so I’m trying to use it with my students in the classroom. I feel that the content was pretty	The math teacher who reported success is also the instructional coach and a DPLC Site Team member. She also is	No adjustment needed
Teachers report value in using literacy strategies with students	I think they (students) are aware of the expectations. Whether or not they choose to put forth effort is another... But I think that they know that expectation is there for them cross the board in all subjects ut whether or not they choose to cooperate	one of the interviewees that reported the lack of buy-in from the math department. The instances reported that show concerns for student motivation do not discount the multiple reports of successful implementation with students.	Additional synthesis added to include concerns with some students’ motivation and academic struggles

APPENDIX E

TABLE 25
STATISTICAL SIGNIFICANCE OF FACULTY TRUST IN COLLEAGUES OVER THE COURSE OF THREE SURVEY ADMINISTRATIONS (TURKEY POST HOC)

(I) Survey Administration	(J) Survey Administration	Mean Difference (I-J)	Sig.	95% Confidence Interval Lower Bound Upper Bound	
May 2018	December 2018	.08373	.834	-.2654	.4329
	May 2019	-.55481*	.001	-.9003	-.2093
December 2018	May 2018	-.08373	.834	-.4329	.2654
	May 2019	-.63854*	.000	-.9910	-.2861
May 2019	May 2018	.55481*	.001	.2093	.9003
	December 2018	.63854*	.000	.2861	.9910

APPENDIX F

TABLE 29
STATISTICAL SIGNIFICANCE OF FACULTY TRUST IN COLLEAGUES BY SUBJECT AREA TAUGHT (TURKEY POST HOC)

(I) Survey Administration	(J) Survey Administration	Mean Difference (I-J)	Sig.	95% Confidence Interval Lower Bound Upper Bound	
ELA/Reading	Math/Science	.4323*	.015	.0726	.7920
	Other	.5625*	.001	.2028	.9222
Math/Science	ELA/Reading	-.4323*	.015	-.7920	-.0726
	Other	.1302	.623	-.2080	.4684
Other	ELA/Reading	-.5625*	.001	-.9222	-.2028
	Math/Science	-.1302	.623	-.4684	.2080

Based on observed means.

The error term is Mean Square (Error) = .234.

* The mean difference is significant at the .05 level.

APPENDIX G

TABLE 67
A PRIORI CODES ESTABLISHED BY RESEARCH QUESTION

Research Questions	A Priori Code
1. In what ways and to what extent is faculty trust influenced by participation in DPLC model of professional learning?	Relationship with Colleagues Shared Decision Making Acquiring new knowledge and skills Collaboration with Colleagues Feelings about DPLC implementation

APPENDIX H

**TABLE 68
FREQUENCIES, DESCRIPTIONS, AND EXAMPLES OF ALL ESTABLISHED CODES USED
FOR FOCUS GROUP DATA ANALYSIS**

Code	Frequency	Description	Example (In Vivo Code)
Acquiring new knowledge and skills	34	The participant(s) discussion of new knowledge and skills that they have acquired	This whole process has been allowing me to be more mindful about the different steps that I need to be taking care when I am planning and when I am delivering instructions in class.
Attitude toward literacy	51	The participant(s) discussion of their attitude and feelings about literacy (learning about it, teaching it, implementation of it, etc.)	When you start making it work for you, close read for some of our kids who are who are really struggling readers or don't want to read it all, they read the question now just find words and write the key words that help them understand.
Barriers to implementation	17	The participant(s) discussion of barriers that have impeded implantation of content learned through DPLC	It's hard to learn how to become a teacher, learn the content and implement a strategy within that content when you don't know what the content is. So as a first-year teacher or a first-year teacher at our type of school, that's a struggle.
Collaboration with Colleagues	38	The participant(s) discussion of their experiences with collaborating with their colleagues	So, I liked when we were actually creating the lessons because we were able to know we did it like based on our professional learning community thing. So, we fed off of each other and get different ideas or like "what are you doing", "what should we do". So, I thought that was kind of interesting.
Content area insight	47	The participant(s) discussion of DPLC learning and implementation through the lens of content area taught	I can see mixing us up once to kind of spread ideas, but I think that at least starting out, it needs to be with your content area to support gym, art, math, because that's gonna be a little bit harder for those.

Feelings about DPLC Implementation	77	The participant(s) feelings about DPLC implantation at their school	For the population of students we work with especially the struggling learners that we have, I think close reading is really important.
Feelings about School-based Professional Development	27	The participant(s) feels about professional development at their school	So one reason I think that training was so beneficial to teachers was that it was stuff that they could take back to the classroom naturally and use you know modeling academic conversation strategies in the training.
Opening up Classroom Practice	20	The participant(s) discussion about their experiences with opening up classroom practice at their school	We've had a ghost walk before and we've had school admin come to our school last year and we went to schools. So it wasn't a new thing for us. We knew what to expect in year two just because we had been exposed to that already.
Relationship with Colleagues	42	The participant(s) discussion about their relationships with their colleagues (other teachers at their school)	I tried to make sure that I was open and they (new teachers) were open to come to me with any questions, concerns and I tried to make sure that they had someone that they can go to that was open to helping them.
Shared Decision Making	13	The participant(s) discussion of their experiences with shared decision making at their school	And (the assistant principal) and I were looking at all of our feeder schools and I'm like well this is good because when they come in from fifth grade to sixth grade, you're not reinventing the wheel here.
Student Ownership of Literacy Strategies	38	The participant(s) discussion of students' use of the implemented literacy strategies in the classroom	I've got kids are struggling with it anyhow so I've already trained them in one way. When I did it, I allowed them to do it in a manner that made sense to them. I gave them a general idea this is kind of things I want to see but how you actually implement it, I'm going to give you some freedom so that makes sense for you.

APPENDIX I

TABLE 70
FOCUS GROUP PARTICIPANT RESPONSES SUPPORTING THE THEME: OPPORTUNITIES FOR PROFESSIONAL GROWTH

Theme Sub-category	Example Participant Responses (In Vivo Codes)
Improved Confidence with Teaching Literacy Over Time	<p>This is my first year so I can't really compare it to anything. But like I think the more we do it obviously the more they get the hang of it and also I've been getting better at it as well over time. But I guess the next year I'll be better and better. I mean each year it just gets better.</p> <p>Even though I teach reading, it is a little more second nature to me now, I can create a close read lesson quicker and I think I do it with more support for the student. I think I do a better job of creating it than I did two years ago.</p> <p>At the end of the day when you're deciding what trainings are most valuable...what can the teachers take and use in their classroom to benefit them.</p>
Shared Leadership Opportunities	<p>We, the people who are on the DPLC... We are pretty good here working together and we're pretty good and open to helping others. So I think if you have a team that is working together and open to help another like she said it's not hard for them to come to us or ask those questions or take advice from us because we seem to be the veterans and we're open to suggestions and I always tell people I'm still growing and learning too so this is all part of a process.</p> <p>Actually present this stuff has really helped. At first it was like I don't know if I really want to present this stuff and then when I started reading up and realized it's not too bad. And when you start talking about it, everything started coming back to me from the other meetings and I'm like this is not too bad. So I think it's made me a lot more comfortable.</p>
Value Literacy Strategies Learned through DPLC	<p>By the time that I'm planning the text-dependent questions is the most and I feel that this training is a lot of help on the way that you have a very good of structure with the reading one two three and the type of questions that are actually you know incorporated in each step, that's pretty helpful.</p> <p>This whole process has been you know allowing me to be more mindful about the different steps that I need to be taking care when I am planning and when I am delivering instructions in class.</p>
Value Collaboration with Colleagues	<p>Meeting with the other teachers is so invaluable because we never ever get to do that. We never get to talk with other people from other schools and find out what they're doing, what's working, what's not working.</p> <p>So I liked when we were actually creating the lessons because we were able to know we did it like based on our professional learning community... So we fed off of each other and get different ideas or like "what are you doing", "what should we do". So I thought that was kind of interesting.</p>

APPENDIX J

TABLE 71
FOCUS GROUP PARTICIPANT RESPONSES SUPPORTING THE THEME: TEACHERS
SUPPORT EACH OTHER

Theme Sub-category	Example Participant Responses (In Vivo Codes)
Value Relationship with Peers	<p>It's easier to attend a training and listen to the information they're providing because we know that's a trustworthy source who's looking out for the best interest of the teacher and the students. So, I think with that aspect it's kind of just improved our school culture, at least amongst the staff.</p> <p>You know it's just a learning curve for all of us as well you know that we're all in this together, kind of moving forward, moving along in a three-year process.</p>
Shared Leadership Opportunities	<p>We, the people who are on the DPLC... We are pretty good here working together and we're pretty good and open to helping others. So, I think if you have a team that is working together and open to help another like she said it's not hard for them to come to us or ask those questions or take advice from us because we seem to be the veterans and we're open to suggestions and I always tell people I'm still growing and learning too so this is all part of a process.</p> <p>Actually, present this stuff has really helped. At first it was like I don't know if I really want to present this stuff and then when I started reading up and realized it's not too bad. And when you start talking about it, everything started coming back to me from the other meetings and I'm like this is not too bad. So, I think it's made me a lot more comfortable.</p>
Support New Teachers	<p>As an instructional coach will use some of the (DPLC) strategies and things that I learned with my new teachers during Friday morning meetings. To show them a strategy or I get to know your skill and our way these things can be implemented and if I could use it with teachers, I'm showing you this and modeling this. So you can use it in your classroom and it will make it a little bit easier for you to understand.</p> <p>We had a lot of new staff, new teachers to the profession. So, at the beginning of the year maybe DPLC wasn't our top priority our top focus with new teachers but then as the years gone on I think new teachers have caught along quicker than we anticipated.</p>
Value Collaboration with Colleagues	<p>Meeting with the other teachers is so invaluable because we never ever get to do that. We never get to talk with other people from other schools and find out what they're doing, what's working, what's not working.</p> <p>So I liked when we were actually creating the lessons because we were able to know we did it like based on our professional learning community thing. So we fed off of each other and get different ideas or like "what are you doing", "what should we do". So I thought that was kind of interesting.</p>

APPENDIX K

TABLE 73
FOCUS GROUP PARTICIPANT RESPONSES SUPPORTING THE THEME: POSITIVE FEELINGS ABOUT DPLC IMPLEMENTATION

Theme Sub-category	Example Participant Responses (In Vivo Codes)
Value of utilizing the acquired literacy practices in their classrooms	<p>I try and use it on a weekly basis (close reading strategies). I try to do reading two or three days a week and I think the repetition is important because my kids do have significant gaps. It does help for them to see that content presented to them over and over and kind of break it down and make notes on the side.</p> <p>I think it helps them build up like a little bit of mental stamina to read the passage. We chunk them like we talked about. But and I think reading it like multiple times helps them get used to the content or at least the sizing of it so when they're reading a test question that might have a quote in it they're not just, you know, skipping over it.</p>
Improved confidence with teaching literacy strategies over time	<p>I can create a close read lesson quicker and I think I do it with more support for the student. I think I do a better job of creating it than I did two years ago.</p> <p>(Implementation of literacy content) Started out rough. I think we're all trying to figure out what we were doing. But once the meetings (school-based PD) started going and we started learning more, I think it was easier for us to kind of implement.</p>
Believe DPLC literacy strategies are good for students	<p>I think it really is helping them (students) with their writing because they're now comfortable and familiar with marking the text, they can go back and go okay so that question address what you've marked</p> <p>They (students) were sitting there writing out their process, writing down notes, important plot parts of the stories and things like that. Some we're using the tools that are on the program for them to highlight without prompting. So they already knew what they needed to do to get the answers so that when they type, it flows out a lot easier</p>
Valued opportunities to collaborate with colleagues about DPLC content	<p>So I liked when we were actually creating the lessons because we were able to like at least like I know we did it based on our professional learning community thing. So we were like feed off of each other and get different ideas or like what are you doing, what should we do. So I thought that was kind of interesting.</p> <p>I was fortunate enough to collaborate with a reading teacher (during school-based PD), so it was a great example to see.</p>

Value opening up Practice

But also I think leading by example. So whether it's a ghost walk whether it's opening up our classrooms in the past for teachers to come in and see so what by making ourselves vulnerable and opening up our practice and realizing that you know hey we're not perfect, we're learning along the way as well. I think that says a lot for new teachers to make them more comfortable and get better by and with all teachers really.

Yes, interactions (with other schools) are pretty helpful, that's my opinion. So when we see what others are displaying so you have a better idea what you can do for next school year. So you're gonna be improving your practices in class. Especially if you're looking at what the feeders are for your school are displaying. So it gives you an idea of the path you can be working on so that you're gonna be improving students' skills.

APPENDIX L

**TABLE 77
JOINT DATA DISPLAY OF OMNIBUS T-SCALE AND FOCUS GROUP INTERVIEWS
RESULTING IN A SYNTHESIS OF DATA**

Dependent Variable	Moderator Variable	Increase in Mean	Stat. Sig. ANOVA Findings	Supporting Qualitative Data	Synthesis
Trust in Colleagues	Time	Increased from May 2018 (n=26, M=4.37) to May 2019 (n=25, M=4.92)	p= .001 (May 2018-May 2019)	Meeting with the other teachers (outside of content area) is so invaluable because we never ever get to do that. We never get to talk with other people from other schools and find out what they're doing, what's working, what's not working. So I liked when we were actually creating the lessons because we were able to know we did it like based on our professional learning community thing. So we fed off of each other and get different ideas or like "what are you doing", "what should we do". So I thought that was kind of interesting.	High levels of trust and comradery report among the staff Teachers report trust in the PD being delivered by colleagues

				It's easier to attend a training and listen to the information they're providing because we know that's a trustworthy source who's looking out for the best interest of the teacher and the students. So I think with that aspect it's kind of just improved our school culture, at least amongst the staff.	
Subject area taught	<p>All groups increased</p> <p>ELA/Reading the highest mean and increase (n = 8, M = 4.53), to (n = 6, M = 5.58)</p> <p>Math/Science (n = 7, M = 4.29) to (n = 9, M = 4.74)</p> <p>All other subject areas (n = 9, M = 4.22) to (n = 7, M = 4.64)</p>	<p>ELA/Reading* Math/Science= p= .015 ELA/Reading *Other= p= .001</p>	<p>Even though I teach reading, it is a little more second nature to me now, I can create a close read lesson quicker and I think I do it with more support for the student. I think I do a better job of creating it than I did two years ago.</p> <p>I was fortunate enough collaborate with a reading teacher (during school-based PD), so it was a great example to see.</p> <p>Well math struggled because what they envisioned closed reading is to be a math as word problems. For them to understand that a graph or a chart or something else could actually be a close read and for them to implement that and utilize that more and more so the kids got comfortable with doing it. So math didn't do a lot of close reading</p>	<p>ELA and Reading teacher report believing in and trusting the learned literacy strategies taught by their peers</p> <p>Math teachers struggle with seeing value in the learned strategies</p> <p>Elective teachers need more support with understanding how to apply literacy content learned</p>	

				<p>I think the main of it needs to be or at least starting out it needs to be with your content area to support gym, art, math, because that's gonna be a little bit harder for those.</p> <p>Yeah, because it's obvious how you do with ELA ... So I mean if you're doing a theorem for math, you're writing out each step you know that this you know quantitative, communicative property... So just for meeting the needs of the different content area so what they specifically need in order to be successful.</p>	
	DPLC Site Team Membership	<p>Both groups increased with high means</p> <p>Members (n = 7, M = 4.29) to (n = 10, M = 4.71)</p> <p>Non-members (n = 18, M = 4.38) to (n = 14, M = 5.06)</p>		<p>We, the people who are on the DPLC... We are pretty good here working together and we're pretty good and open to helping others. So I think if you have a team that is working together and open to help another like she said it's not hard for them to come to us or ask those questions or take advice from us because we seem to be the veterans and we're open to suggestions and I always tell people I'm still growing and learning too so this is all part of a process.</p> <p>Meeting with the other teachers is so invaluable because we never ever get to do that. We never get to talk with other</p>	<p>Teachers in both groups report enjoying collaboration with colleagues</p> <p>DPLC Site team members report trusting each other and working well together</p> <p>Non-members report value in co-creating lessons with each other during PD</p>

				<p>people from other schools and find out what they're doing, what's working, what's not working.</p> <p>So I liked when we were actually creating the lessons because we were able to know we did it like based on our professional learning community... So we fed off of each other and get different ideas or like "what are you doing", "what should we do".</p> <p>So I thought that was kind of interesting.</p>	
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