7-2023

Trust, Levels of Functioning, and the PLC Process in a Midwest Middle School: A Case Study

Nancy Fuchs
Lindenwood University

Trust, Levels of Functioning, and the PLC Process in a Midwest Middle School:

A Case Study

by

Nancy Fuchs

A Dissertation submitted to the Education Faculty of Lindenwood University

In partial fulfillment of the requirements for the

Degree of

Doctor of Education

School of Education

Trust, Levels of Functioning, and the PLC Process in a Midwest Middle School:

A Case Study

by

Nancy Fuchs

This dissertation has been approved in partial fulfillment of the requirements for the

degree of

Doctor of Education

at Lindenwood University by the School of Education

_____*Lynda Leavitt, EdD*_____   ___July 28, 2023___
Dr. Lynda Leavitt, Dissertation Chair   Date

__*Sherrie Wisdom*_____   _____July 23, 2023__
Dr. Sherrie Wisdom, Committee Member   Date

_____*Robyne Elder*_____   __July 28, 2023_____
Dr. Robyne Elder, Committee Member   Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Nancy Fuchs

Signature: _Nancy Fuchs_ Date: _7/28/2023_

Acknowledgements

I am so grateful for and thankful to the people who have been with me throughout this process. To Dr. Lynda Leavitt for her leadership as my dissertation chair. I would not have been able to accomplish any of this without you. Your quick responses to my panic emails were more appreciated than you'll ever know! To Dr. Sherrie Wisdom and Dr. Robyne Elder, thank you for your guidance as committee members. I am beyond honored to have three incredible women guide me through my doctoral program. I will never forget the compassion and encouragement you displayed when I was struggling.

To my family, immediate and extended, for helping while I took classes, went missing to write, and/or simply let stress get the best of me, you are the best. To my friends, thank you for believing in me, making me laugh, and always assuring me that you still loved me, even when I disappeared into Dissertation Oblivion. Thank you, also, for always lifting me up and celebrating all the successes-big and small. To my Coffee Club, thanks for listening, encouraging, and celebrating. To my school friends, who kept me going through it all, I can't thank you enough. To my PLC, thank you for your willingness to engage throughout this journey. And to Lisa, my doctoral partner, I couldn't have done this without you!

To my grandma Lorraine, who was a life-long learner and instilled that quality in me from the very beginning. She showed me what strong women could do to change the world and I am forever grateful.

Finally, the biggest thanks to my daughter, Lily Lorraine. I am forever grateful to and for you. This has been a long road and none of it could have happened without you. It's all for you. Always. Love you, bug.

Abstract

This dissertation investigated the connections between professional learning communities (PLCs), trust, and targeted interventions to promote increased functioning within adult groups. In contemporary education environments, collaborative efforts and shared decision-making became integral to achieving organizational goals. However, adult groups faced challenges such as communication breakdowns, conflicts, and lack of cohesion, impeding collective efficacy.

The study critically analyzed the theoretical foundations of PLCs and the potential to foster professional growth and collaboration. PLCs were characterized by ongoing learning, reflective dialogue, and a shared commitment to improvement. By providing a structured framework, PLCs offered opportunities for individuals to engage in meaningful interactions, build relationships, and collectively pursue common objectives.

Trust was identified as a crucial factor that underpinned high-functioning group dynamics. Trust played a pivotal role in promoting open communication, risk-taking, and psychological safety within adult groups. The dissertation explored the multidimensional nature of trust. The study delved into the antecedents and outcomes of trust within PLCs, highlighting the significance of trust-building interventions as a catalyst for enhanced group functioning.

The dissertation investigated an intervention aimed at cultivating trust and enhancing group functioning within a Midwest, suburban PLC. The intervention encompassed conflict resolution strategies, communication training, and feedback mechanisms. The analysis synthesized qualitative evidence to examine the efficacy of the

intervention and the impact on trust development, collaboration, and overall group performance.

Methodologically, this dissertation employed a qualitative approach. The study combined a comprehensive review of relevant literature with empirical research, including pre/posttest surveys, weekly, open-ended surveys, and journaled observations, to capture the complex dynamics within adult groups and the effects of intervention.

The findings of this study contributed to both theoretical and practical implications. The dissertation offered a nuanced understanding of how PLCs, trust, and interventions interact to facilitate high-level group functioning. The findings provided insights for educators, leaders, and practitioners seeking to optimize collaborative efforts and harness the collective intelligence of adult groups. By highlighting the importance of trust-building interventions within PLCs, this research offered a roadmap for organizations to foster a culture of trust, collaboration, and continuous improvement.

Table of Contents

List of Tables

List of Figures

Chapter One: Introduction

Introduction

In 2022, the term Professional Learning Community (PLC) was well-known in the field of education. DuFour et al. (2020) defined professional learning communities as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (p. 11). Miller (2020) called PLCs "a common and proven practice to promote teacher collaboration that increases student achievement" (para. 2). According to Solution Tree (n.d.), PLCs "first emerged among researchers as early as the 1960s when they offered the concept as an alternative to the isolation endemic to the teaching profession in the United States" (para. 1).

Professional learning communities (PLCs) were called numerous other names-communities of learners, professional communities, teacher teams, etc. - but regardless of the name chosen by educational institutions, educators within PLCs promoted collaborative culture (Battersby & Verdi, 2014). Solution Tree (n.d.), a leading professional development company for education stated, "The term *professional learning community (PLC)* first emerged among researchers as early as the 1960s when they offered the concept as an alternative to the isolation endemic to the teaching profession in the United States" (para. 1). A major voice in the historical context of PLCs was Rosenholtz, whose 1989 research focused on how teacher efficacy, satisfaction, and professional pride came from feeling supported in the learning process as an educator. Teachers who felt a powerful sense of efficacy were more likely to seek out development and growth opportunities. The same efficacy and satisfaction led to greater teacher

retention (Solution Tree, n.d.). Senge (2006) introduced the idea of learning organizations "where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (p. 4). The professional learning community concept caught the attention of educators who struggled with the current state of the profession; the PLC concept developed and the name shifted from learning organizations to learning communities (Solution Tree, n.d.).

Student learning was meant to be the ultimate focus of teacher learning; an idea which became more prevalent as time went on. Darling-Hammond (1996), another leader in the field, emphasized, "Teachers learn best by studying, doing, and reflecting; by collaborating with other teachers, by looking closely at students and their work; and sharing what they see" (p. 5). In 1996, Myers authored a book titled, *The Professional Educator: A New Introduction to Teaching and Schools* and coined the term professional learning community to describe a group of teachers collaborating on ideas and student achievement.

In 1998, DuFour became a leading voice in the development and implementation of PLCs with the publication of *Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement*. DuFour noticed the connection between student performance and schools in which educators and leadership shared vision. The data suggested in places where teachers saw themselves as members of continuous learning communities, the teachers shared planning activities, engaged in discussions about student achievement, and reflected upon practices related to student growth. Eventually, DuFour et al. (2020) definitively defined PLCs as "an ongoing process in

which educators work collaboratively in recurring cycles of collective inquiry and action

research to achieve better results for the students they serve" (p.11).

The process quickly gained ground across the educational field. Serviss (2022),

wrote PLCs offered educators "opportunities to directly improve teaching and

learning…build stronger relationships between team members . . . help[ed] teachers stay

on top of new technology . . . [and] help[ed] teachers reflect on ideas" (p. 1). The study of

PLCs was well-documented and well-established amongst educators. Nguyen and

Nguyen (2020) wrote collaboration and teacher participation in the PLC process were

crucial for teacher improvement. School leaders expected the use of PLCs among

teachers where job-alike educators met and reflected on student data.

The quality of education was based on a professional learning community (PLC),

where learning in schools was considered a social instead of individual activity (Dehdary,

2017). Teacher collaboration and professional learning were vital components that

improved teaching quality (Nguyen & Nguyen, 2020). Authors in the current literature

defined PLCs by the cycle of "plc-ing" in which the term took on a verb-adjacent

meaning focused on four specific questions:

What do we want students to know and be able to do?; how will we know if they

learned it?; how will we respond if some students have not learned it?; and how

will we extend the learning for students who are already proficient? (DuFour et

al., 2016, p. 10)

The questions pushed learning community participants into a continuous, cyclical

course of development, inquiry, and reflection. Action became the goal for participants,

rather than a proverbial finish line to reach.

PLCs were not a new concept in education, but PLCs were new to the researched school district and specifically to the researched middle school. In the researcher's experience, traditionally, educators at the researched school had autonomy and individuality within the classrooms. A survey sent to teachers at the end of the 2018 school year indicated only 22% of teachers surveyed were interested in continued learning about and implementing the PLC process. However, the researched district moved ahead with the new PLC initiative beginning in the 2019-2020 school year. Four teacher leaders, the researcher included, attended the Solution Tree PLC Summits - a week-long conference in which educators learned about PLC processes, strategies, best practices, and common misconceptions. Teachers returned and led professional development sessions on the process, common assessments, and differentiated instruction. The district implemented the PLC process under the auspice that teachers form networks and collegiality through professional education to support collaboration (Kolleck et al., 2021). In theory, the idea sounded promising. In practice, the researcher found the process was implemented quickly and with minimal professional development to ground the work for individual teachers and teacher teams.

A core component of the PLC process was the creation, implementation, and revision of common formative and summative assessments without structured time for teacher teams to create those assessments. Some PLCs (including the sixth grade ELA team) did not have common agreed-upon standards for assessment. In the experience of the researcher, the implementation of the process came under fire before PLCs began, due to expectations not considered by the building teachers to be beneficial.

A team, for the purpose of the study was described as "a group of people working together interdependently to achieve a common goal for which all members are mutually accountable" (DuFour et al., 2020, p. 42). When the sixth grade English Language Arts team began the process, no two teachers followed the same set curriculum. Standards were aligned to resources each teacher chose to use and each of the six teacher members of the PLC had different teaching styles, philosophies, and interests. The members of the PLC were also diverse in the number of years taught, ranging from a teacher who had only been in a middle school setting for two years to a teacher that was two years from retirement.

The researcher struggled to get the "team" to agree upon standards from which to build a new, cohesive curriculum. Often, when conversations became difficult, multiple PLC members would disengage or physically leave the meetings with these behaviors becoming more common as the team moved to virtual meetings during the pandemic. Members signed off with no warning or turned off cameras and refused to engage. With no clear chain of authority, set roles, or common priorities, the group struggled to collaborate. Eventually, the group reached a breaking point in which multiple members walked out of a meeting in the fall of 2022. Evidence was clear the PLC did not work as a team. A collaborative culture, "A commitment individual members make to work collaboratively in order to achieve a desired outcome" (Mattos et al., 2016, p. 7) did not exist. The sense of trust, "a set of behaviors, such as acting in ways that depend on another . . . trust is a belief in the probability that a person will act in a certain way" (Thagard, 2018, para. 3), a critical component of team operations was broken, or never existed in the first place. The PLC was not functioning per the parameters defined by

others. The researcher's perception of the team fell in the "Disintegrating" level of functioning on Oestreich's (2011) scale, where "The team is literally in a spiral of disintegration, a painful process where blame, anger, self-doubt and other emotions dominate the team environment" (p. 12).

Rationale of the Study

Flamino et al. (2021) defined groups as "people [who] come together to pursue instrumental goals or work together toward common purposes" (p. 402). Ritchie (2018) asserted, "groups are realizations of a group structure, with structures being understood as complexes/ networks of relations that make available nodes/positions that might place additional requirements on their occupiers" (p. 5). Groups of educators within schools were known as Professional Learning Communities (PLCs). DuFour et al. (2020) defined PLCs as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (p. 11). Huijboom et al. (2019) noted, "there is a lack of instruments for extensively investigating PLCs on different levels of development as well as the factors that influence the development" (p. 2).

Kolleck et al. (2021) wrote, "One factor widely acknowledged to facilitate school and classroom improvement is a strong collaborative culture among teachers" (p. 89). Wallace (2021) explained that in terms of improved professional relationships, "establishing common goals and trusting relationships are crucial for enabling open reflective dialogue" (p. 382). Trusting relationships were vital to a team. Sifaki-Pistolla et al. (2020) stated, "Members of effective teams should have faith in their ability to solve problems, be positive about each other's expertise and most importantly trust their co-

workers" (p. 218). While Hallam et al. (2015) asserted, "Trust is critical in effectively implementing the PLC model" (p. 193).

Mattos et al. (2016) stated, "To be successful, teams met to set and share goals to work on that are immediately applicable to their classrooms, without which they will drift toward superficial discussions and truncated efforts" (p. 9). School culture and collaboration were vital components in the PLC process, but some PLCs fell into what Riggins and Knowles (2020) referred to as "PLC-Lite," where educators were unable to move past surface conversations and failed to increase student achievement. The authors further noted good intentions may be present, but group dynamics, lack of growth-mindset, and trust issues were detrimental to a PLC's efficacy. The need or desire for autonomy also altered the PLC process when the process was perceived to be interfering with teachers' "constructed process . . . diverse knowledge, experience, equal power & autonomous learning" (Sehrawat, 2014, p. 2). If an educator perceived participation in the group process inconsequential to professional growth or student achievement, the teacher failed to engage in meaningful ways.

Previous researchers described group interventions to improve dynamics and performances in a PLC lacking cohesion. PLC structures were known to work and practices and methods existed to help improve PLCs. According to Serviss (2022), "PLCs reap huge benefits for both students and teachers" (para. 4). Muhammad (2011), a leading voice in the PLC circuit wrote, "a highly frustrated staff is a highly ineffective staff" (p. 31). If the PLC process was perceived as a contributing factor to frustration, PLCs were unsuccessful. In the researched district, teacher teams existed who viewed PLCs as time-consuming and ineffective. A 2021 open-ended survey of the researched school district

teachers indicated the PLC in question consistently chose the lowest standard (1-not true

of our team) for questions related to the process, which indicated the process was not

consistently utilized across teams and grade levels.

The Team Trust Survey (Appendix B) developed by Oestreich in 2011, was a

measurement tool that allowed teams to rank individual levels of understanding and trust

within the group by numbering statements based on the team's interactions and

performance. The rankings were calculated to determine the level of trust the team

operated within. There existed five levels of trust: ideal, high-functioning, traditional,

low-functioning, and disintegrating. Once the level of trust was determined, an

intervention was employed to study if the intervention changed the overall level the team

functioned within. The survey was utilized during data collection pre-intervention to

determine the level of functioning. Thinking Collaborative offered numerous strategies

for teams adapted for this study and team. The team focused on creating norms and

guidelines to drive discussion and decision-making throughout the semester. The

researcher journaled throughout the process (weekly) to create a narrative picture of the

team's progress through reflection and observations. The research assistant, a

Lindenwood doctoral student, sent a weekly survey to all team members (excluding the

researcher) gauging individuals' ranking of the team meeting and intervention at each

meeting. A post-test, Team Trust Survey (Appendix B), was provided again at the end of

the study period to determine if the intervention increased or changed the level of

functioning within the PLC team.

The researcher focused on specific factors of the PLC process: trust in groups and

group dynamics. Through utilization of the Team Trust Survey, pre and post research, the

researcher aimed to see if there were measurable differences due to the implementation of the intervention within the PLC. The researcher found a multitude of literature addressing the PLC process, but little information on how to help support teams that self-identify as low functioning on the Team Trust Survey.

Purpose of Study

The purpose of this study was to investigate the team functioning (specifically trust) of a Midwest, suburban Professional Learning Community (PLC). The intervention used by the PLC was a hybrid of Thinking Collaborative's Adaptive Schools strategies. The intervention encouraged team members to create questions collaboratively to review at the beginning of each meeting. The team implemented the questions when the team reached a point at which the team was no longer moving forward. The researcher explored the application of an intervention through weekly journaling following the PLC team's meetings. The PLC team, comprised of eight members of the sixth grade English department, participated in weekly open-ended and Likert scaled team reflection surveys (Appendix C). Research participants began the study with a pre-test of the Team Trust Survey in August 2022 and ended the study with a post-test of the Team Trust Survey in December 2022. Research results were shared with the researcher's school and district to help increase or change trust and team functionality levels as measured by the Team Trust Survey.

Research Questions

Research Question 1: How do responses on the Team Trust Survey differ from pre to posttest?

Research Question 2: How do participant responses on the weekly survey differ in observable ways during the intervention period?

Research Question 3: How do the PLC participants perceive the level of functioning during the intervention process?

Research Question 4: How does the researcher perceive the level of functioning with participants during the intervention process?

Study Limitations

The study was based on one PLC within the researched school district. The researched PLC consisted of up to eight members on meeting days. Generalizations were impossible due to the small sample size and the absence of members during meetings throughout the semester. The weekly check-in included an open-ended survey question for the participants to write about the perceptions of the meeting, the intervention, and the team's level of functioning. The researcher and research assistant could not ensure the participants answered the question fully. The responses to the survey may have been impacted by the participants' willingness to share, time available to answer, memory, and various technological malfunctions. This made the theming difficult. Due to Covid restrictions the team met inconsistently. The team met in person, virtually, and in a mixture of both, depending on the situation and risk levels.

Definition of Terms

Clearing Strategy: "[T]ransition of emotional and mental state from outside the meeting to being present in the meeting" (Adaptive Schools, n.d., slide 60).

Collaborative Culture: "A commitment individual members make to work collaboratively in order to achieve a desired outcome" (Mattos et al., 2016, p. 7)

Existing State-Desired State Strategy: "This strategy allows teams to discuss current problems the team is experiencing and set norms and goals for the group" (Thinking Collaborative, 2022, slide 89).

Groups: "People [who] come together to pursue instrumental goals or work together toward common purposes" (Flamino et al., 2021, p. 1)

Group Dynamics: "[D]escribes the way in which people in a group interact with one another. When dynamics are positive, the group works well together. When dynamics are poor, the group's effectiveness is reduced" (Mind Tools, n.d, para. 16).

High Level of Learning: "Every child is on track to graduate high school with the skills, knowledge, and dispositions needed to continue to learn" (Mattos et al., 2016, p. 11)

Norms: ". . . behaviors that promote development of a collaborative culture focused on learning" (Mattos et al., 2016, p. 63)

PLC-Lite: "[T]he ineffective operation of a team acting under the umbrella of a PLC" (Riggins & Knowles, 2020, p. 46)

Professional Learning Community (PLC): "[A]n ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (DuFour et al., 2020, p. 11)

School Culture: "School culture is the set of norms, values, and beliefs, rituals and ceremonies, symbols and stories that make up the 'persona' of the school" (Cromwell, 2002, p. 4)

Positive: A culture in which stakeholders shared a "set of values that supports professional development of teachers, a sense of responsibility for student learning, ad a positive, caring atmosphere" (Cromwell, 2002, p.16)

Toxic: "one where teacher relations are often conflictual, the staff doesn't believe in the ability of the students to succeed and a generally negative attitude prevails" (Cromwell, 2002, p. 18)

Struggling PLCs: For the purpose of the study a professional learning community in which trust, communication, and dynamics are not quantified at high levels by the members within.

Team: "[A] group of people working together interdependently to achieve a common goal for which all members are mutually accountable" (DuFour et al., 2016, p. 42).

Levels of Functioning: For the purpose of the study, the level of functioning included the five levels of trust in which the Team Trust Survey rated a team's ability to work and progress together. The levels of functioning related to how a group of people explored the expectations of and for one another, specifically through interactions, interdependence, communication, shared thinking, and relationships, as measured.

Disintegrating: "The team is literally in a spiral of Disintegration, a painful process where blame, anger, self-doubt and other emotions dominate the team environment" (Oestreich, 2011, p. 12).

Ideal: "The Ideal trust level is a self-led powerhouse where people are genuinely for one another and everyone's performance potentials are deeply tapped in service to the team's mission" (Oestreich, 2011, p. 8).

High Functioning: "The High Functioning trust level empowers a group through greater openness, feedback, and the intentional choice to use the team as a vehicle for personal and professional growth" (Oestreich, 2011, p. 9).

Low Functioning: "Low Functioning teams experience a level of interpersonal and organizational mistrust that erodes relationships and has a negative impact on the work. People feel stressed, frustrated, and sometimes victimized" (Oestreich, 2011, p. 11).

Traditional Practice: "Teams at the Traditional Practice trust level focus on the tasks and getting them done through clear expectations, cooperation, and good communications" (Oestreich, 2011, p. 10).

Team Trust Survey: "[A] useful tool to help people explore together their differing expectations and experiences of one another. It can offer a framework to help people think about the kind of team they want and what they need to do together to create it" (Oestreich, 2011, p. 1).

Trust: "Trust is a set of behaviors, such as acting in ways that depend on another...trust is a belief in the probability that a person will act in a certain way" (Thagard, 2018, para. 3).

Summary

The purpose of this study was to investigate the levels of functioning based in a Midwest, suburban PLC. In the researcher's experience, the PLC struggled to work together, and those struggles were compounded during the pandemic. PLCs were most successful when goals, missions, and visions were shared by all group members. PLCs were organized within schools or districts to focus on collaboration, shared learning, and

ongoing professional development. PLC members engaged in regular meetings, discussions, and interventions designed to promote reflection, inquiry, and a change in the level of functioning due to trust. The goal of the study was to help this PLC create a culture of continuous improvement in which educators worked together to develop and implement teaching practices that led to positive outcomes for students. The researched PLC lacked many components associated with high functioning teams. The researcher believed that trust was a critical component of a team's ability to function and collaborate. The researcher utilized weekly check-ins based on PLC-created norms and interventions to measure trust through the Team Trust Survey pre/posttest throughout the Fall 2022 semester.

Chapter Two: Review of Literature

Introduction

Professional adults were called upon to collaborate in the creation and implementation of procedures, goals, missions, and visions. In schools, educators were asked to take part in a collaboration process called Professional Learning Communities (PLCs). Professional Learning Communities were so popular and quickly implemented in the education system that the term's meaning was lost (Reeves & Eaker, 2019). Teachers in PLCs were asked to participate in team goal setting, discussions, and brainstorm sessions (Williams, 2021). The creation of PLCs in schools was a disruption to the organizational processes and flow that already existed in many systems. This disruption, in some cases, resulted in overt opposition to change (Muhammad, 2012). Without buy-in from educators the process lacked cohesion, achievement, and a buy-in from staff. The lack of buy-in was tied to factors such as lack of collective efficacy, lack of leadership, and the inability to recognize short term "wins," along with conflicting initiatives that overwhelmed educators and school staff (Jessie, 2022). The promotion of a PLC initiative without proper implementation and planning created a toxic culture for teachers (Muhammad, 2012).

The theoretical framework of PLCs relied on the understanding that trust was essential to the development and continued success of the process (Summers & Gray, 2016). Trust was essential to the professional relationship of adults, but a universal definition did not exist. For the purpose of the study, the researcher used the following explanation of trust: "Trust is a set of behaviors, such as acting in ways that depend on another . . . trust is a belief in the probability that a person will act in a certain way"

(Thagard, 2018, para. 3). Oestreich (2011), the creator of Team Trust Survey, the researcher's pre and posttest assessment, called trust the "mutual effort needed to build effective communications and relationships. Without it, other tasks get done less efficiently and effectively" (p. 2). Group and team dynamics, self-efficacy, climate and culture, and trust were all necessary components of a highly functioning PLC team.

Organization of the Literature Review

The literature review began with an explanation of the five levels of functioning used to assess a PLC's trust. Each level of functioning was explained and compared. The literature review also explored levels of team functions and dysfunctions outside of the Team Trust Levels. The review continued with various definitions and explanations of the PLC process from education experts. The review of PLCs also included descriptions of highly functioning teams compared to low functioning teams. The review continued with an exploration of climate and culture within schools and the role self-efficacy and collective efficacy played in a team's ability to collaborate. The review also covered the topic of trust in professional settings and specifically the role trust played in an educational setting for teachers.

Levels of Functioning

Valls et al. (2016) wrote, "work teams have become the basic structural units of most current organizations" (p. 751). Work teams, Professional Learning Communities (PLCs) in the education field, existed at various levels of functioning. According to Brewer and Flavell (2021), "interprofessional practice and teamwork including hierarchical power structures, professional fragmentation, individualism and professional autonomy" (p. 538) were responsible for a team's level of functioning. According to Van

Emmerik and Brenninkmeijer (2009), leading voices in the field of team functionality, team functionality was impacted by "the similarity or diversity of characteristics of the team members . . . less visible characteristics among team members, such as attitudes, values, and beliefs may be more important for team functioning" (p. 651).

For this study the levels of functioning were the five levels of functionality the Team Trust Survey utilized to rate a team's ability to work and progress together. These levels of functioning were related to how a group of people explored expectations of and for one another, specifically through interactions, interdependence, communication, shared thinking, and relationships (Reeves et al., 2016)

Ideal Level of Functioning

Oestreich (2011), the creator of the Team Trust Survey, described five levels of functioning for professional teams. The highest category was "Ideal." "The Ideal trust level is a self-led powerhouse where people are genuinely for one another and everyone's performance potentials are deeply tapped in service to the team's mission" (Oestreich, 2011, p. 8). Levels of functioning were explored deeply in Brewer and Flavell's (2021) study. There were informal findings about groups functioning at high levels. These groups often used humor to engage with one another in individual and group interactions. According to the study, "The terms 'respect,' 'support,' 'considerate,' 'engaged,' 'interested,' and 'friendly' were used to describe interactions in these groups" (Brewer & Flavell, 2021, p. 541). Within this level of functioning, team members were empowered to share ideas, insights, challenges, concerns, and vulnerabilities. Whatever was shared with the team was met with sensitivity, acceptance, support, and constructive feedback. The group was self-leading and sanctioned by the members to take risks. All members

within an ideally functioning team held a sense of community, affirmation, and

acceptance as individuals and community members (Oestreich, 2011). Valls et al. (2016)

stated, "Teams composed of members with diverse views, opinions, skills, and

information are better equipped than individual employees to deal with the complex

problems faced by organizations" (p. 751).

High Level of Functioning

Directly below the "Ideal" level of functioning was "High Functioning." "The

High Functioning trust level empowers a group through greater openness, feedback, and

the intentional choice to use the team as a vehicle for personal and professional growth"

(Oestreich, 2011, p. 9). Cramm and Nieboer (2011) wrote, "Ideally, each team member

knows the diverse points of view held by all other team professionals and trusts other

team members" (p. 2). High functioning teams focused on and exhibited trust and

appreciated the differing views offered by each member. Team members at this level of

functioning were emboldened to bring sensitive topics to the table. Members

acknowledged concerns and felt comfortable with questions. Collegiality was clear

within the group. Team members coordinated roles and worked toward common goals

the team created together. When and if problems arose, the team facilitated conversations

that led to resolution (Oestreich, 2011). The high levels of functioning were the goal for

professional teams.

Traditional Level of Functioning

Most teams performed at a traditional level of functioning. Oestreich (2011)

explained, "Teams at the Traditional Practice trust level focus on the tasks and getting

them done through clear expectations, cooperation, and good communications" (p. 10).

Cramm and Nieboer (2011) described traditional functioning teams as "involved in collective information-seeking to address specific problems and may use each other as information sources" (p. 2). Within traditional functioning teams the goal was cordiality over discourse. When issues or conflict arose, teams were awkward and moved to resolve the problems as quickly and diplomatically as possible. Clear, separate roles were integral to the team's functioning. The roles allowed members to work as individuals within the group. Decisions were most often made by those in leadership roles while tasks were delegated to other members (Oestreich, 2011). Traditional functioning described the typical level of functioning of most teammates in professional settings, where members of a team acted as individuals while the members worked under the auspice of collaboration (Xyrichis et al., 2018).

Low Level of Functioning

Dysfunctional groups fell into the bottom two categories of Oestreich's scale. "Low Functioning teams experience a level of interpersonal and organizational mistrust that erodes relationships and has a negative impact on the work. People feel stressed, frustrated, and sometimes victimized" (Oestreich, 2011, p. 11). Members were unable to put aside individual interests. Cramm and Nieboer (2011) stated, "One problem is that interprofessional team members have to simultaneously manage the teamwork process and their individual identities" (p. 2). Team members in low functioning teams worked in environments of criticism and blame. Members were competitive and unwilling to share ideas due to fear and personal interest. Valls et al. (2016) elaborated, "In teams with a low [function], because innovative endeavors are not fostered or expected, members are likely to follow the standard, set procedures" (p. 754). Cliques and groups formed within

the larger group, which resulted in higher levels of dissonance. Decisions were not made, ideas were unsupported or undermined, and leadership was not present or was mistrusted by the larger group (Oestreich, 2011). "These lower functioning groups rarely demonstrated shared learning (e.g., providing ideas, offering knowledge or teaching others specific skills) or asked questions across the professions" (Brewer & Flavell, 2021, p. 542).

Disintegrating Level of Functioning

The lowest level in Oestreich's scale was the disintegrating group. Oestreich (2011) said, "The team is literally in a spiral of Disintegration, a painful process where blame, anger, self-doubt and other emotions dominate the team environment" (p. 12). Brewer and Flavell (2021) wrote, "there were lower levels, and variety of, interactions" (p. 542) within groups that refused to work together. In these groups members were in open conflict with one another. These teams were often stuck in a constant state of not getting along (Samuel, 2021). Members left meetings or refused to meet due to personal feelings or avoidance. Compromise was nonexistent and blame and mistrust were evident across the cliques and individuals in the team. Ideas were not shared due to mistrust or dislike. In disintegrating teams mistrust came with the inability or unwillingness to communicate (Rajagopal, 2021) Members were self-serving and sabotaged one another. Leadership was not present or was ignored (Oestreich, 2011). Teams within this level of functioning caused concern for those within the group and within the organizations to which the group members belonged.

Factors of Functioning

There were several factors influencing a team's level of functioning. Venables (2017) wrote, "effectiveness was directly dependent on awareness of where team members were-individually and collectively-in their understanding of and engagement with the work" (p. 1). The functional level of a team was dependent upon all group members' abilities to engage in the process. Kramer (2019) stated that functioning was dependent upon the "way that teachers, teams, and the entire school decide to act and work together on behalf of the students they serve" (p. 4). Brewer and Flavell (2021) explained, "Many factors can limit interprofessional practice and teamwork including hierarchical power structures, professional fragmentation, individualism and professional autonomy" (p. 538). Teams only functioned at high levels when differences of opinion were set aside, and members worked toward shared visions. Collaboration was directly tied to the team's ability to share workload (Reeves et al., 2016). Education teams in a high functioning situation worked to positively influence student learning outcomes (Voelkel & Chrispeels, 2017).

Professional Learning Communities

The term Professional Learning Community (PLC) was coined in the early 1990s by DuFour and Eaker in *Professional Learning Communities at Work*. The term broke down the understanding of a professional - a person who was highly trained in a field-and paired it with the understanding that professionals were motivated to continue learning within the educational field to maintain the professionalism expected. The word community was added because it suggested that the professionals worked together with a common interest in mind (Riggins & Knowles, 2020). DuFour et al. (2020) defined *professional learning communities* as "an ongoing process in which educators work

collaboratively in recurring cycles of collective inquiry and action research to achieve

better results for the students they serve" (p. 11). The popularization of professional

learning communities meant that the term became ubiquitous across the educational field.

PLCs were misconstrued as a program or plan, rather than a reimagining of the strategies

implemented across the broad spectrum of staff within a given school and district

(Venables, 2017). De Neve et al. (2015) defined PLCs as "a school organization in which

a group of teachers shared and questioned practices from a critical point of view. This

questioning happened in an ongoing, reflective, collaborative, and inclusive way" (p. 32).

DuFour et al. (2016) further explained professional learning communities as "on-going-a

continuous, never-ending *process* of conducting schooling that had a profound impact on

the structure and culture of the school and the assumptions and practices of the

professionals within it" (p. 10). The process of professional learning required constant

attention and commitment from all members. Nguyen and Nguyen (2020) wrote that

collaboration and teacher participation in the PLC process were crucial for teacher

improvement. According to a report by Honaker et al. (2022) high-functioning PLCs led

to improved performance in student achievement and increased teacher satisfaction.

  Professional Learning Communities held no distinct or all-encompassing

definition. The concept was widely interpreted in different forms with a few universal

themes. Other authors who continued the study of PLCs after DuFour considered PLCs a

group of people who shared and critically interrogated practices in ongoing, reflective,

collaborative, inclusive, learning-oriented, growth-promoting way (Fink, 2018). Hord

(1997), a major voice in PLCs, considered PLCs a process where stakeholders "seek and

share learning, and act on their learning . . . to enhance effectiveness as professionals for

the students' benefit; thus, this arrangement may also be termed communities of

continuous inquiry and improvement" (p. 1). Williams (2021) attempted to define PLCs

or the general idea of *collegiality* as "a collaborative group of educators that works

together to improve students learning by committing to continuous improvement" (para.

2). While no universal definition existed, the literature made clear professional learning

communities and the process PLCs represented indicated widespread support for inquiry-

based learning and action research by staff (at all levels throughout the school) to

improve student learning experiences. Hirsh (2020) stated, "In this way, well-structured

professional learning communities can help advance equity for all students in a school

and, when implemented consistently across all schools, within a school district" (para. 5).

PLCs were often defined by the cycle of "plc-ing" in which the term took on a

verb-adjacent meaning for groups participating. DuFour's driving questions pushed

learning communities into a continuous, cyclical course of development, inquiry,

reflection, and action in which growth became the goal for participants, rather than a

proverbial finish line to reach.

High Functioning PLCs

"Mature PLCs" shared common themes throughout the process (Huffman, 2001).

While the process never looked the same from group to group, these themes remained

consistent for those PLCs that progressed through the cycle. Fink (2018) stated, "A

'highly functioning' or 'authentic' PLC is grounded in data and includes careful analysis

of both student and teacher work. Together, members develop and practice strategies to

more-effectively reach students" (p. 2). Educators in the PLC process were empowered

and encouraged to use creativity and innovation to make decisions for professional

outcomes and students' outcomes, all in the pursuit of growth. DuFour et al. (2020)

posited that the functions of a true PLC included collective decision-making on "what to

teach, the sequencing and pacing of content, the assignments used to monitor students

learning, the criteria they will use in assessing the quality of student work, the norms for

their team, and the goals for their team" (p. 13). These responsibilities fell on the teacher

teams in collaboration with administration to create a stronger sense of buy-in throughout

the building. Educators in teams with high and ideal levels of functioning shared the

mindset of "our kids" versus "my kids" for student achievement. This allowed for greater

collaboration across teams and created an atmosphere in which teachers helped one

another improve (Zalaznick, 2020). The National Association of American Elementary

Principals' (2021) described the standards and strategies for PLCs, "At the core of this

work is a relentless focus on learning. Every member of the school community must be

continuously learning, including students, educators, families, community partners and

citizens" (p. 10).

   Educators in high-functioning groups were concerned with the growth and

contributions of colleagues and were eager to offer expertise which facilitated those goals

(Huijboom et. al., 2019). Teachers and school leaders built a solid foundation for their

mature PLCs with crafted consensus, collective commitments, and strategies created to

alleviate and resolve conflict, while acknowledging that conflict inevitably arose. The

key to the PLC's strength was commitment to the process and one another (DuFour et.

al., 2016). True PLCs were driven by three main ideas: a focus on learning, a

collaborative culture and collective responsibility, and a results orientation (Riggins &

Knowles, 2020).

Educators engaged in the PLC process required second-order change, a change in philosophy and beliefs. High functioning teams felt comfortable with the examination of practices, policies, and procedures (Kramer, 2019). According to Huijboom et al. (2019) there were five indicators of a *distinguished* (high-functioning) PLC. These indicators included a shared focus on student learning, permanent dedication to development, collaboration, mutual trust and respect, and the desire to experiment (p. 9). Mattos et al. (2016) stated, "PLC practices do not represent minor tweaks to [the] traditional school system; the [practice] involved demolition, redesigning, and rebuilding" (p. 1). High functioning PLCs committed to a deep level of collaboration. Teachers depended on one another and held one another accountable to improve teaching practices. Educators were comfortable observing, discussing, and evaluating team members' teaching and student learning outcomes. The teams addressed issues and challenges and actively worked to improve teaching practices together.

DuFour et. al. (2020) expanded on the idea of highly functioning teams:

> Real PLCs are committed to a collaboratively developed foundation of mission, vision, values, and goals; a guaranteed and viable curriculum; the use of collaboratively developed common formative assessments; and the clear and consistent application of the information from the collaborative analysis of common formative assessments to revise and redirect teaching and learning, as well as direct students to a system of interventions to support and extend their learning, student by student, skill by skill. All these elements are essential for a PLC *that works*.

The use of student data was imperative to a high-functioning PLC. Sonju et al. (2019) recommended the Response to Intervention (RTI) approach to utilizing data within a PLC. With the RTI Framework, educators collected, analyzed, and utilized data to support student learning at various levels. Buffum et al. (2018) expounded on the RTI framework and the framework's ties to the PLC process. When classroom teachers were involved at all tiers of RTI using data in a timely, targeted, and flexible manner outcomes were higher than teams that were not using the RTI process. The connections between PLCs and the RTI process allowed teachers in high-functioning teams to meet students at the students' levels of understanding and intervene to help them grow within those standards. Teacher teams worked together and created data collection tools as well as interventions for struggling students (Buffum et al., 2018). Voelkel and Chrispeels (2017) asserted, "Well-developed PLCs have a positive impact on both teaching practices and student achievement" (p. 507).

Low Functioning PLCs

The evidence that PLCs created significant growth in professional practices and student achievement in schools was clear, but PLCs created with the label in mind and little professional development or backing within the school and districts led to lower functioning teams (Reeves & Eaker, 2019). DuFour et al. (2016) indicated, "The single biggest obstacle educators must overcome if they are to transform their schools into PLCs is the long-standing tradition of teachers working in isolation" (p. 37). Teachers who had worked in an isolated setting and were then uprooted and expected to collaborate, plan, and review data were resentful and resistant to the process (Honaker et al., 2022).

Low-functioning PLCs were branded "PLC lite" (Power, 2019; Reeves & Eaker, 2019; Riggins & Knowles, 2020). According to Power (2019), "the professional learning community process sometimes does not work because collaborative teams, despite their efforts, do not dig deep enough in answering the four critical questions of the PLC work" (para. 11). The four critical questions were the basis of the PLC process, according to DuFour et al. (2016). Without the four questions a team was simply meeting and talking, rather than conferring and collaborating (2020). Reeves and Eaker (2019) believed "some [PLCS] settle for PLC Lite simply because they prefer to pick and choose the specific practices of the PLC framework that are the easiest, or the quickest, to implement" (p. 7).

Collaboration was a fundamental piece of the PLC process yet was often the hardest piece for teams to implement (National Association of Elementary School Principals, 2021). Clarity and consensus of what collaboration meant in terms of a PLC were vital for the continued growth and functioning of the PLC (Farmer, 2019). Summers and Gray (2016) stated, "The development of PLCs depends upon a focus on learning, effective use of resources and facilities, and positive interaction between all participants" (p. 62). The lack of these components within the group led to a breakdown of the process, which resulted in a lower functioning level for the team and individual members. The key to the process was fidelity, and yet groups that claimed to be PLCs were not following the questions, collaborating, or working in a way aligned to shared goals and missions (Reeves & Eaker, 2019). A study by Carpenter (2018) showed collaboration and a commitment to continuous learning were imperative to the levels of functioning of a PLC.

According to the Johns Hopkins Institute for Education Policy and Johns Hopkins Center for Research and Reform in Education's research review (2017), curriculum is a critical factor in student academic success. Steiner (2017), defined curriculum as:

> The knowledge and skills students are expected to learn, which includes the learning standards or learning objectives they are expected to meet; the units and lessons that teachers teach; the assignments and projects given to students; the books, materials, videos, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate student learning. (p. 4)

The lack of defined curriculum was a major factor in a PLCs functioning. Curriculum and collaboration combined created higher levels of functioning for PLCS. Shared curriculum, while vital, was not enough to allow teams to be called PLCs (Hirsh, 2020). Shared curriculum was easier for teachers to implement when the teachers had part in the creation and implementation of said curriculum. The curriculum was more successful when it was aligned to common formative and summative assessments used by all teachers in each PLC (Reeves & Eaker, 2019). Teams that were uninterested or unable to discuss formative and summative data showed a marginal focus on student achievement, a major issue for a collaborative learning team (Power, 2019). A lower functioning PLC was less likely to focus on the foundational purpose of a PLC-student learning.

Leadership within the schools and districts that had implemented the PLC process was another critical component related to the levels of functioning. Riggins and Knowles (2020) wrote, "Ineffective leadership often ensures that schools continue to be caught in the trap of PLC Lite. In schools lacking strong leaders, meetings are held and discussions

are taking place, but little action and improvement in student learning occurs" (p. 51). Muhammad and Cruz (2019) asserted, "Leadership is a serious business; an ineffective leader can make a lasting negative impression while an effective leader can positively affect lives for generations" (p. 5).

When PLCs were not the core foundational aspect of the school's procedures, the teams were unlikely to thrive (Farmer, 2019). The lack of foundation led to what Muhammad (2012) called "blatant and overt opposition to change" (p. 62) which led to lack of buy-in from the educators who directed and "lived" the process. According to Honaker et al. (2022) "If teachers lack buy-in and engagement in PLCs, it's usually not about laziness, but more often a symptom of false collaboration and frustration" (para. 5). Teacher buy-in to the process was crucial when teams strived for higher levels of functioning than disintegrating or low.

Andragogy

Andragogy, the science of adult learning, was a wide-ranging term which encompassed theoretical frameworks and principles. The term was coined in the 1800s by Alexander Kapp in a discussion about learning styles (Bouchrika, 2022). While Andragogy was defined in myriad ways, for the purpose of this study, a few definitions were explored. Andragogy was defined by Machynska and Boiko (2020) as, "the processes of stimulation, upbringing, retraining, self-improvement, self-development of an adult throughout . . . life" (p. 27) Firrat et al. (2016) wrote, "Considering the characteristics of adult learners along with self-learning and andragogy, it could be concluded that they would like to be educated in relation to real life, which is self-directed, including participation, and based on their own life experiences" (p. 33).

Bouchrika (2022) simply stated that andragogy was "learning that is focused on adult learners" (para. 1).

Andragogy was differentiated from pedagogy by two basic concepts. Adults were considered fully self-conceptual human beings. That is, adults were able to self-direct and show independence of thought within the learning opportunities sought (Fan et al., 2018). Child-learners were far less likely to possess the self-consideration to seek out knowledge versus knowledge presented by a trusted adult. (Bouchrika, 2022). The second assumption was that adult learners possessed a wealth of knowledge built through experiences, and therefore could draw upon those experiences, which created deeper connections to learning. Education became a web of connections adult learners made to previous experiences and beliefs (Knowles, 2019).

Knowles created the six assumptions of adult learning and later the eight process elements of adult learning (Van Iseghem, 2018). The six assumptions explained that adults were self-conceptualized humans who possessed the desire to choose learning concepts. Experiences were strongly tied to adult learning styles and understandings and adults were more likely to engage in learning when the adults felt a need for instruction (Evans, 2022). Adults sought out learning opportunities which were directly tied to need. This allowed for higher motivation as the learning was problem-based and necessary. Adults needed to understand why learning was necessary and beneficial (Caruso, 2021). The eight processes of adult learning expanded upon Knowles' previous ideas. The principles were very similar to the six assumptions while adding the idea that adults sought out mentorship and help and were more likely to enjoy modern ways of learning versus direct lecture that was not connected to prior experience (Van Iseghem, 2018).

Adult learning driven by choice was linked to higher job satisfaction within the educational field. The belief that professional development was directly beneficial to performance and growth of the teachers who participated in the training was crucial to the overall rating teachers gave the training. When teachers felt training was helpful, teachers were engaged (Zimmerman, 2016). Learning happened when relevant examples, appropriate content, and technical design were directly incorporated into the training. Connection to prior experiences was also critical (Pozega et al., 2019).

Researchers reported that adult learning was more successful when self-directed and topics were chosen by small groups of teachers versus a school leader assignment (Jones et al., 2019). Tracey et al. (2022) stated, "Design is an inherently social, collaborative process requiring social interactions with those the design is intended for and the numerous entities who contribute to the final design" (p. 2857).

Collaboration

Adult collaboration was a concept which received significant attention. Collaboration among adults took many forms, which included collaboration in the workplace, collaboration in the community, and collaboration in educational settings. Historically, teachers worked in isolation and made independent decisions. Independence and individualism were the norms across the educational field. Collaboration increased in value within the school system as it became clear more support was needed (Blazieko & Squires, 2018). Teacher collaboration was crucial to planning, managing, and continued learning. Schools across the country found that when teachers were offered common plan times with fellow educators who shared like groups of students or educators who taught the same content, the teachers often felt more satisfaction and efficacy. The teachers were

able to build collegiality and address content-specific issues together. There were also

reduced reports of isolation amongst staff members (Caskey & Carpenter, 2020).

Promethean (n.d.) conducted a survey in which 40% of teachers indicated that

collaboration was a top priority for teaching; 50% of educators said that student learning

targets were collaborative activities made possible with teacher teams or PLCs. Schools

committed to collaboration produced organizational cultures in which teachers came

together in cohesion.

     Effective communication was essential for collaboration, and it was necessary for

individuals to understand other perspectives and work together toward common goals.

Studies showed that communication was enhanced when technology facilitated

communication, teams established clear communication protocols, and teams were

provided opportunities for feedback (Rosen et al., 2018). These strategies allowed deeper

relationships between teachers, which created systems in which morale was reported at

higher levels. High morale was directly connected to willingness to collaborate and set

high expectations (Teasley, 2016). Schools that showed support for educators'

collaboration saw increased focus on instructional practices and student collaboration.

Teachers in schools that supported collaboration were also more likely to see

collaboration as beneficial when compared to teachers who collaborated in schools

without built-in collaboration time in the schedule (Carroll et al., 2021).

     Meyer et al. (2020) wrote, "Teacher collaboration is an important characteristic of

successful schools and a significant predictor of a number of outcomes at the student,

teacher, and school level" (para. 1). Wendel (2022) found, "Professional teacher learning

is conquered through collaborative processes, such as professional learning communities"

(p. 1). The collaborative process, the action of professional learning communities, was

vital to continued growth and learning for educators (Samuel, 2022). Tallman (2020)

asserted, "Collaborative practices [were] central to professional development because

they further opportunities for teachers to . . . reflectively share their practice, revisit

beliefs on teaching and learning, and co-construct knowledge" (para. 2).

      Teacher conversations were not necessarily collaboration and not all collaboration

was considered high level. When teachers met and discussed basic functions of teaching

like pacing and logistics in short bursts it was considered "low depth" collaboration. In

contrast, when the discussions revolved around learning opportunities, data analysis, and

collective interpretation of standards it was considered "high-depth" collaboration (Fay,

2019). Groups were more likely to display high-depth collaboration when there was

evidence of trust within the group. Easily perceived interpersonal connections and the

ability to solve conflict together within a collaborative setting also indicated higher levels

of functioning. Group members maintained autonomy whilst each member functioned as

a contributing force in the overall group goals (Meyer et al., 2020). Caskey and Carpenter

(2020) differentiated low depth groups and high-depth groups as the difference between

teacher teams who "wanted to meet" versus teacher teams who "had to meet."

Willingness to participate in the process was a key indicator in the implementation and

maintenance of the collaborative process. Wendel (2022) described the levels of

collaboration in simpler terms: effective versus ineffective. When teams could discuss

agenda items at levels of analysis and evaluation, the collaboration was considered

effective. If the team held discussions based on simpler tasks like scheduling and simple

lesson plans, the collaboration was considered ineffective. This included situations in

which team members came into conflict and were unable to resolve issues in a timely manner that detracted from the overall goals of the team.

Trust was a critical component of successful collaboration; thus, it was necessary for individuals to feel that they could rely on one other and that all contributions were valued. Trust was built through various strategies, such as development of shared goals and expectations, establishment of clear roles and responsibilities, and promotion of open communication (Hugander, 2022).

Randall and Marangell (2021) explored how staff within educational institutions interact with one another to find deeper meaning in the work done every day within the school. When teachers felt disconnected or unable to find time to collaborate, it led to feelings of inadequacy or dissatisfaction. Teachers were more likely to report elevated learning levels for students and opportunities for extension when teams collaborated to create authentic learning events. Lifelong learning remained a consistent encouragement to educators, but time away from classrooms often proved too heavy a burden for schools to bear. Collaboration allowed for professional learning to take place within the school day. Fay (2019) wrote, "Job embedded, teacher-led professional learning is most often found in the form of teacher collaboration" (p. 32). Blazieko and Squires (2018) stated, "Teachers work together, or collaborate, to learn from each other, to create new knowledge, and to support each other" (p. 45). Relationships emerged as the cornerstone of collaboration. Teacher groups with higher levels of trust and understanding for one another were more likely to communicate and collaborate. Positive relationships allowed for continued growth for team members and had a strong impact on the overall atmosphere in the buildings the teacher teams worked in (Teasley, 2016).

Another component of collaboration was the importance of diversity. Collaboration between individuals of diverse backgrounds and perspectives led to more creative and innovative solutions. Diversity could also present challenges, such as communication barriers and misunderstandings. Strategies such as promoting cultural competence and providing opportunities for cross-cultural learning helped teams overcome those challenges and facilitate collaboration among diverse groups of individuals (Multicultural Collaboration, n.d.).

Climate and Culture

Professional Learning Communities were strongly linked to school culture and climate. School culture and climate gained traction within the education field in the past two decades (Petlak, 2019). Cromwell (2002), a leading voice in the field, defined school culture as "the set of norms, values, and beliefs, rituals and ceremonies, symbols and stories that make up the 'persona' of the school" (p. 4). School climate encompassed the feelings stakeholders had within the building. This included the experiences of individuals, the relationships built between people in the school, and the opinions and viewpoints held by teachers, students, and administration (Alliance for Education Solutions, 2022). Alphonse-Crean (2022) described culture and climate as "something of a fog, both visible and intangible, difficult to hold yet easy to breathe in as one moves through it" (p. 41). Groysberg et al. (2021) believed culture and climate "express goals through values and beliefs and guide activity through shared assumptions and group norms" (para. 15). Climate and culture were used interchangeably, however "school climate' refers to the individual experiences and feelings that students, teachers, and staff have about the school, while 'school culture' typically refers to the long-term physical

and social environment, as well as the values or beliefs of the school shared across

individuals and time" (Kane et al., 2018, para. 6).

Singh and Dubey (2021) explained climate and culture were "multidimensional

construct[s] reflecting the entire persona of the school" (p. 547). School climate and

culture were linked to feelings of safety, belonging, engagement, and personal

meaningfulness teachers found within the school. These feelings were also strongly

linked to the teaching and learning taking place in the school. The climate and culture of

a school were responsible for "experiences, attitudes, behaviors, and performance"

(California Department of Education, 2021, para. 2). A school's climate was tied to

physical, emotional, and social positivity within a school. Culture and climate were

crucial components in the procedures, policies, and inherent understandings within a

school community. The culture and climate influenced all decisions made within school

(Scholar Chip, 2020). Climate and culture were deeply tied to the values and missions of

an institution. Alphonse-Crean (2022) believed "the most deeply held values are

unarticulated verbally but play out conspicuously in what an institution chooses to focus

on, highlight, or applaud" (p. 42). According to Khumalo (2018):

> The promotion of a culture that is conducive to teaching and learning not only
>
> rests on the availability or lack thereof of adequate resources, the cooperation of
>
> staff members, the participation of parents and other factors, but also on style of
>
> school leadership (p. 1).

Positive Climate and Culture

Experts in the field McLaughlin and Talbert (1993) pointed out that strong school

cultures created and reinforced common beliefs among multiple teachers. In some

schools, the culture was considered "positive," meaning "[a] set of values that supports

professional development of teachers, a sense of responsibility for student learning, and a

positive, caring atmosphere" (Cromwell, 2002, p. 15). Teacher collaboration and

professional learning were vital components which improved teaching quality (Nguyen &

Nguyen, 2020). Positive climate and culture tended "to collaborate and see success

through the lens of the group" (Groysberg et al., 2021, para. 13). The quality of education

was based on a professional learning community (PLC), where learning in schools was

considered a social instead of individual activity (Dehdary, 2017). Petlak (2019) stated,

"[For teachers] good climate is a prerequisite of good relations, it evokes interest in

educational innovations, it opens good opportunities for self-realization" (p. 228). Singh

and Dubey (2021) wrote "a positive school environment helps school administrators to

regulate rules and regulations effectively, enhances teachers' job satisfaction" (p. 547). A

positive school culture enhanced teacher well-being and lowered the stress levels

associated with the challenges faced by teachers in the daily struggles of the profession

(Kamarudin et al., 2022).

School Culture was positively influenced by collegiality amongst teachers within

schools (Muhammad, 2012). Teacher achievement was higher when teachers shared

common goals. Common goals also led to lower burnout rates and higher levels of

continued learning amongst staff in schools. These educators also showed higher levels

of intrinsic work ethic (Dickhauser et al., 2020). School climate was directly related to

behaviors, engagement, and achievement (Alonso-Tapia & Ruiz-Diaz, 2022). The values

and supporting professional development in relation to student learning focused on

growth for staff and students alike-consistently and constantly in positive culture.

Allgood (2021) wrote, "A positive school climate is associated with a range of positive outcomes . . . [such as] higher levels of attendance and engagement for students and staff, reduced teacher turnover . . . and improved academic outcomes" (para. 6). Teachers who worked in positive cultures and climates held positive feelings about self-efficacy and held higher motivation to remain in the teaching profession. Teachers associated these feelings with collegiality amongst peers (Dickhauser et al., 2021). Alonso-Tapia and Ruiz-Diaz (2022) examined how "interest, effort, perceived ability, self-regulation, success expectancies, and resilience improve" (p. 152) for educators within a positively perceived climate.

Toxic Climate and Culture

There were school climates and cultures that were considered "toxic." According to Cromwell (2002) toxic climates were those in which "teacher relations were often conflictual; the staff didn't believe in the ability of the students to succeed, and a generally negative attitude prevailed" (p. 18). In a process like professional learning communities, in which the driving idea was to "ensure that all students learn at high levels" (DuFour et. al., 2016, p. 11), disbelief in ability was paralysis. When teachers worked in a perceived toxic culture the teachers were less likely to seek out collaboration opportunities, set challenging goals, or invest in student achievement in a way that helped the climate shift toward more positive outcomes. Lack of these components led to conflict. Conflict in the workplace, a large indicator of negative culture, was a stressor for educators. (Voelkel & Chrispeels, 2017). Stress contributed to higher burnout rates and lower job satisfaction. Stress was also associated with lower levels of collaboration between colleagues and lower achievement levels in professional standards. Working in

conflict meant teachers were less likely to seek out professional development opportunities (Sneyers et al., 2016).

Negative or toxic cultures were the basis of teacher dissatisfaction and malcontent (Khumalo, 2018). Relationships, achievements, motivations, and ideologies were incohesive in institutions with negative climates. Teacher involvement was low outside of prescribed duties and educators reported feeling higher levels of burden. Higher levels of reticence existed in dealing with leadership and colleagues (Petlak, 2019). Systemic inequities and biases tended to be more prevalent in adverse climates. Structures which impacted individuals in disparate ways were ignored or compounded within these systems (Alphonse-Crean, 2022). Processes for policies and procedures, collegial collaboration, intrapersonal relations, and instructional innovation were disordered within unfavorable climates. The disorder was worse in schools with fewer resources (Kamarudin et al., 2022).

Educators were less equipped to deal with stress while working in negative climates. Problem-solving skills, social-emotional health, and coping skills were lowered, and aggression and tension were higher (Sneyers et al., 2016). Important factors like student and teacher mental health were ignored or barely addressed in these schools. Teacher training was unfocused and ineffectual, expertise was ignored or misused by leadership and colleagues alike, and reliability and trust were damaged (Singh & Dubey, 2021). Climate and culture were strongly tied to perceptions, which were often intangible and poorly explained, but were firmly entrenched and difficult to overcome. Teachers in perceived difficult situations felt less intrinsic motivation or desire to improve (Dickhauser, et al., 2021). Teachers also felt less prepared and trained in these conditions.

Self-efficacy and collective efficacy were low, which was detrimental to growth. Educators felt low levels of support, which exacerbated the circumstances (Allgood, 2021). Finally, autonomy and participation were lower for teachers in these positions, which allowed for little desire or impetus to improve as individuals or as collectives (Alonso-Tapia & Ruiz-Diaz, 2022).

Efficacy

Self-Efficacy

Celik (2020) explained the term "self-efficacy" was coined by Bandura as part of his social cognitive theory in which Bandura explained that social experience and observational learning were at the center of personality development. Self-efficacy was a central idea in the Social Cognitive Theory (Karimova, 2020). Samuel (2022) defined self-efficacy "as an individual's judgments of their capabilities to plan and execute courses of action needed to achieve designated types of performance" (p. 27). Self-efficacy was a belief in an individual's ability to accomplish objectives, assignments, or challenges in certain, specific circumstances (Samuel, 2022). Medaille et al. (2022) wrote, "Self-efficacy is not based on an objective assessment of abilities; instead, it is closely tied to positive and negative thought patterns, reactions to environmental cues and stressors, and emotional regulation" (p. 3). Bai et al. (2022) explained, "individuals consciously experience an eagerness to have more self-control to ensure achieving their goals" (para. 1). According to Myyry et al. (2021), the development of self-efficacy came from interactions between an individual's personality and the environment experienced during the progression of personal advancement. Individuals first interpreted the outcomes and consequences of actions and choices throughout numerous and district

situations encountered during personal experiences. When choices and actions led to

success the individual typically interpreted this experience as mastery which increased

self-efficacy, although perceived failures due to actions and choices led to lower levels of

self-efficacy. The strongest contributor to self-efficacy seemed to be the mastery

experiences (Myyry et al., 2021).

Self-efficacy was believed to be one of the top determinants of performance, both

academically and professionally, outside of intellectual ability. High achievement was

directly connected to a heightened sense of self-efficacy in a meta-analysis of effect sizes

(Schneider & Preckel, 2017). Oncevska Ager and Wyatt (2019) connected self-efficacy

to continuing learners' "cognitions, emotions, and motivations" (p. 108). Personal

preferences for hobbies, interests, resolve, and endeavors were all tied to self-efficacy. As

a result, Samuel (2022) wrote "persons who have low levels of self-efficacy for achieving

a specified task might avoid it, whereas those who believe they are capable are more

likely to engage" (p. 27). Psychological research showed self-efficacy produced positive

benefits on performance and well-being of individuals. Self-efficacy allowed individuals

to engage at deeper levels, manage the demands of prescribed tasks, and to hold higher

levels of motivation to complete said tasks (Salanova et al., 2020). Individuals who held

higher levels of self-efficacy were more likely to take on challenging tasks and showed

perseverance through difficult situations while managing stress reactions through self-

regulation and self-monitoring. These individuals were also more likely to complete tasks

with positive outlooks, focusing on what went right versus what had gone wrong during

debriefs (Medaille et al., 2022).

Self-efficiency's place in the social-cognitive framework was considered part of a pre-performance phase in which individuals considered personal capabilities before beginning tasks. While the relationship between self-efficacy and performance were not explicitly correlated there was evidence that personal belief in one's abilities led to higher performance on tasks that individuals felt confident undertaking (Talsma et al., 2019). People with high levels or beliefs in their self-efficacy were more likely to perform at higher levels than those with low perceptions of self-efficacy (Schneider & Preckel, 2017). Self-efficacy was often tied to the term personal initiative. The terms held different meanings, as self-efficacy remained a cognitive construct whereas personal initiative was more closely tied to an individual's actual ability to begin tasks and perform them without explicit instructions or outward motivation (Lisbona et al., 2018). Self-efficacy ultimately led to implementation intentions in individuals, which allowed commitment to tasks and higher goal-oriented behaviors (Uziel & Baumeister, 2017). Salanova et. al. (2020) concluded that self-efficacy allowed employees, "to manage their task/job demands and motivates them to be more engaged in their jobs, leading to better performance and feelings of positive subjective well-being" (para. 2). Bai et al. (2022) determined, "self-efficacy tends to have a positive influence on . . . achievement" (para. 7).

Teacher Efficacy

Self-efficacy was a point of interest in the educational field, as teachers were expected to be self-motivated as both learners and performers. Professional development was emphasized for educators as an integral component of growth. The educational system was deeply dependent upon highly qualified educators. This required the ability to

self-evaluate and analyze personal capabilities. For teachers the ability to make decisions,

ascertain potential outcomes, reevaluate decisions, and move forward quickly were vital

to the systems required of teachers (Karimova et al., 2020). Within the classroom,

educators' self-efficacy beliefs drove the development of lessons and assessments

(Abbasi et al., 2021). Yang (2020) explained, "For teachers in particular, the construct of

self-efficacy refers to a teacher's belief in his or her ability to attain the intended

educational outcomes for their students through their teaching" (p. 799).

Çelik and Atik (2020) stated, "People with high self-efficacy regard any barrier as

an opportunity instead of a threat and they can easily motivate themselves" (p. 77).

Previous research on self-efficacy in educators was performed using the Teacher Sense of

Efficacy Scale (TSES) which studied three aspects of teacher efficacy: teachers' sense of

efficacy in classroom management, instructional practices, and student engagement

(Yang, 2020). Previous research also showed that teachers and academics considered

experts or innovators exhibited higher levels of self-efficacy based on merits. The

opportunity to learn and perform at high capacities led by self-efficacy helped students

learn and perform and build greater levels of self-efficacy through transfer of knowledge

and confidence. Teachers with high levels of self-efficacy were better able to support

student learning through targeted planning, protocols, and practices, which were crucial

for student achievement; self-efficacy driven teachers tended to show higher levels of

organization and clearer processes in terms of goal attainment (Çelik & Atik, 2020)

These educators showed high levels of self-efficacy in research and teaching, typically

designed and implemented on their own, rather than prescribed by the institutions

through which the educators were employed (Myyry et al., 2021). Self-efficacy that was

not aligned with performance outcomes was still shown to improve confidence even

when an individual's belief in ability was over-estimated as effort and persistence were

improved (Talsma et al., 2019).

Self-efficacy was closely aligned to the ideas of work engagement and personal

initiative. Lisbona et al. (2018) defined work engagement as "positive, fulfilling, work-

related mindset characterized by vigor, dedication, and absorption" (p. 90) and personal

initiative as "being characterized by being self-starting, proactive, and persistent in

overcoming barriers" (p. 90). The ideas of work engagement and personal initiative were

vital to self-efficacy in teachers. When educators were disengaged from the processes of

the daily aspects of the job, they were less likely to show initiative in performance (Yang,

2020). Educators were increasingly asked to engage in planning, strategizing, and

implementing lessons and assessments with their groups known as PLCs (DuFour et al.,

2020). Self-efficacy in individuals led to higher work engagement and personal initiative

- specifically in terms of willingness to work through issues with other teachers in

common areas-which then transferred to group efficacy and group engagement, leading

to higher achievement for teams (PLCs) (Salanova et al., 2022).

Collective Efficacy

The term collective efficacy stemmed from research on self-efficacy. Through his

work with self-efficacy, Bandura noticed that group dynamics within a workplace were

closely tied to the overall abilities and performances exhibited by team members at any

given time. Self-efficacy played an important role in how individual team members

performed, but it was clear that groups which held assurance in the team's abilities and

performances showed higher performance standards collectively, even when teammates

had not previously shown initiative and conduct displayed at an elevated level of success.

When Bandura shifted his research on collective efficacy into schools and found that

academic achievement and student outcomes were significantly higher when teachers

considered their team's abilities to be raised above what was considered the typical level

of functioning (as cited in Celik, 2020).

Donohoo et al. (2018) defined group efficacy as, "When a team of individuals

share the belief that through their unified efforts, they can overcome challenges and

produce intended results" (p. 42). The belief that teams members held high efficacy

impacted performance and capabilities in a positive manner. Putney and Jones (2019)

wrote, "Collective efficacy refers to beliefs of a group to enact an effective organization

and has typically been researched at the school-wide level with classroom teachers, also

known as collective teacher efficacy" (p. 231). Fathi et al. (2021) wrote, collective

efficacy is conceptualized as instructors' attitudes "about the ability both of the team and

of the faculty of teachers at the school to execute courses of action required to produce

given attainments" (p. 169). Skaalvik and Skaalvik (2017) defined collective efficacy as

"shared goals values, value consonance, collective teacher efficacy, and supportive

colleagues" (p. 1389).

Collective efficacy within schools was well-researched and supported. The

research made clear that work done in teams held incredible potential for improvement in

schools. This work required buy-in from formal and informal leaders in education

(Davidson et al., 2020). Teamwork and collective efficacy were complex ideas. It was

vital that leaders pushed teammates beyond what each member previously thought was

possible, shared both positive and negative outcomes honestly and thoughtfully with an

eye toward progress, reassured teammates when trouble arose while high expectations were still conveyed, and maintained positivity about outcomes throughout the process (Preston & Donohoo, 2021).

Collective efficacy in schools fell into two categories: Teacher Collective Efficacy (TCE) and Collective Classroom Efficacy (CCE). TCE referred to the effectiveness of a group of educators who worked together toward common goals based on student achievement, performance, and capabilities. The educator teams were dedicated to the provision of valuable learning opportunities for their students. CCE referred to the common goals teachers and students created together within the classroom environment (Preston & Donohoo, 2021). These goals stemmed from work done by teacher teams during PLC time. For this study's purposes, the researcher focused solely on the TCE facet of collective efficacy.

Collective efficacy only worked when leaders and members were able to understand the environment within the school and work to make it better, while avoiding "toxic positivity" (France, 2021). According to Strahan et al. (2019), "The psychological environment of schools is a powerful determinant of staff well-being and educational outcomes for children" (p. 149). Some leaders tried to create a culture of high student achievement in ways that were demoralizing or traumatic to the school's educators when they dwelled on performative measures and data that was already recorded versus providing staff development training. Strahan (2019) suggested that schools and educational institutions not focused on the encouragement of staff social dynamics would see a higher level of attrition because leaders were unable to recognize the importance of

human connectedness and the role the connections played in motivating staff to push toward higher capability and conduct.

The idea of collective efficacy was strongly tied to innovation in schools. Many schools required that teachers work collectively and continuously to improve outcomes for students, which necessitated a collaborative environment for teachers to display innovation (Peng, 2021). To cultivate an innovative environment for educators and students alike, it was clear that collective beliefs were crucial. Trust, friendship, and closeness were vital to the creation and maintenance of a positive school environment, which reciprocally led to higher feelings of collective efficacy and academic optimism (Schwabsky et al., 2020). Flood and Angelle (2017) stated, "Collective efficacy beliefs are based on the perceptions that teachers have of the whole school" (p. 89). When these perceptions were positive, the efficacy was bound to be higher. But perceptions were sharply tied to the connections teachers had within the school they worked within. These beliefs impacted motivation, management, and instruction throughout the school (Flood & Angelle, 2017).

Buy-in was vital for collective efficacy, but it was improbable to believe that every educator in each school would be dedicated to the idea of collectiveness. Educators were well-known for having very specific beliefs, thought patterns, ideologies, methodologies, personalities, morals, and understandings. These factors all contributed to the behaviors they displayed within their classrooms and teaching decisions (Fathi et al, 2021). These individual characteristics were strongly tied to self-efficacy but were sometimes seen as hindrances to collective efficacy. One of the highest motivators for collective efficacy arose through competition and cooperation. Educators held the

understanding that the perception of their work was tied to that of their peer teachers and

therefore the connections were imperative to everyone's success. While being assessed as

part of a group was known to cause feelings of unease, it was clear that it also fostered

higher levels of competition and cooperation in educators (Rosander et al, 2019).

However, as Nordick et al. (2019) made clear, "high efficacy beliefs among teachers can

lead to high expectations and student success" (p. 249).

Hattie (2023), a leading voice in educational effectiveness, posited that collective

efficacy was among the top indicators and influences of student success. In fact,

Donohoo et al. (2018) concluded that, "collective teacher efficacy is greater than three

times more powerful and predictive of student achievement than socioeconomic status"

(para. 3). Flood and Angelle (2017) found, "schools with stronger shared beliefs in their

instructional efficacy had higher student academic achievement" (p. 89). Preston and

Donohoo (2021) wrote that collective efficacy ensured a greater likelihood of successful

outcomes when educators were willing to confront their sense of self against their sense

of connection. Collective efficacy hinged upon the opinion of the team members. When

the groups were strongly positioned in their belief that the team was functioning as a

collective, stress management was recorded at higher levels and teachers were less likely

to report feeling overwhelmed. The reassurance that teachers were part of a team that was

committed to working for and with everyone as a unit inspired greater confidence and

overall satisfaction in the workplace (Strahan et al., 2019). Educators who held a

collective belief in a high level of efficacy operated in a fundamentally stronger way than

those teams who did not hold that same faith in their connected abilities. This collegial

spirit moved teams from the expectation of educational compliance to authentic and engaged student learning (Donohoo et al., 2018).

Trust

Collaboration, climate, collective efficacy, and sense of satisfaction were all reviewed in this study. Throughout the review of these concepts a central idea emerged as a foundational necessity-trust. Trust was a key factor in the functioning of adult groups, including in work settings, social groups, and communities. There was no definitive meaning to the word. Trust was closely linked to the quality of relationships between group members. Teams with positive relationships with one another were more likely to trust one another. Trust can also be enhanced by shared values, goals, and experiences among group members. The essence of trust was defined in many different contexts. For this review, trust will be defined as "a set of behaviors, such as acting in ways that depend on another . . . trust is a belief in the probability that a person will act in a certain way" (Thagard, 2018, para. 3).

Trust was commonly presented as a sociological construct. The idea of trust was collectively contingent upon the people who experienced the concept. Trust could only exist within a group of people who expected agreed-upon behavior patterns to be followed by each member (Kaufman, 2019). Human nature demanded the ability to trust. Trust formulated and cultivated bonds between people. In situations like professional settings, trust was formed upon the idea that bonds were explicitly and implicitly, already in place. Individual membership within a professional group often hinged upon the perception that trust was essential (Wert, 2020).

Trust was defined in a few major dimensions. Interpersonal trust was defined as the feelings of connectedness and dependence on two people who shared a relationship (Carsel, 2020). Though a definitive definition of the idea failed to emerge, it was clear that trust must exist between two or more people within a group. Emotional bonds facilitate trust within individuals (Kaufman, 2019). Another dimension of trust is cognitive-based trust (CBT) which was reliant upon the perception that one could and did perform to the expectations set upon them by an individual or group. This type of trust required dependability and credibility that was built over time (Mangia & Williams, 2020). Connected to CBT was affect-based trust (ABT). ABT relied on support offered during tasks and times of emotion. Trust was also contingent upon how often people were together in face-to-face situations with open communication. Effective communication was essential for building and maintaining trust because effective communication allowed group members to share information, clarify expectations, and resolve conflicts. Open and transparent communication was particularly important in high-stakes or complex group settings, such as those involving decision-making or risk management. ABT was trust built over time based on proximity, as well as emotional and social emotions (Islam et al., 2021).

In the workplace, trust was constructed as the perceived belief that colleagues held positive intentions toward one another and the collective work each colleague partook in as part of a team (Breysse Cox, 2019). Specifically, within a school group (PLC), trust hinged upon agreements over goals, improvements, and fostered feelings of belonging. Shared visions allowed group members to feel trust with one another. When visions and goals were unclear to group members, they were less likely to report a sense

of trust in the group (Wallace, 2021). Breysse Cox (2019) further explained trust through

the assertation that people had to build up credibility over time and defend that credibility

repeatedly in a satisfactory fashion by acting dependably and in specific ways

consistently.

Situations, needs, commitments, and values could vary widely within a PLC.

When groups created common language and fostered continuous professional interactions

with one another, the feelings of trust grew within the group (Wolgast & Fischer, 2017).

Group members had to believe in the benevolence, reliability, competency, and honesty

of others within the team. This also required levels of vulnerability from individuals.

When members saw one another as people who exhibited integrity and capacity for

growth, they were more likely to report trust in their colleagues. Integrity was considered

one of the most desirable traits for group members in a professional educational setting

(Flood & Angelle, 2017). When group members worked as individual islands within the

team, rather than as a cohesive unit, trust was indicated at lower levels. Team members

needed to see that their colleagues believed in the efficacy and importance of the group

versus the individual. When that belief was upheld, there were higher levels of trust

indicated by members (Rosander et al., 2020). Trusting relationships were seen by

teachers as vital to the ability to work in collaborative environments (Kolleck et al.,

2021). According to Bader and Lilijenstrand (2003), "Unless trust permeates all facets of

an organization, productivity will fall, creativity will decrease, and stress will abound" (p.

3).

The effectiveness of collaborative work and team members was highly influenced

by the perception of trust. Colleagues who took the time to get to know one another as

individuals and find traits and characteristics to appreciate were able to bond more easily.

This also meant team members were able to look beyond perceived quirks or flaws in

their colleagues and appreciate the distinctive personalities within the group, particularly

in relation to how those unique habits boosted the overall performance and bonds within

the team (Caskey & Carpenter, 2020). Trust was of significant consequence to the overall

mental health and feelings of wellness that educators within teams reported, as well

(Bouchrika, 2022). Feelings of security allowed group members to face difficult tasks

more readily, and to rely on one another and their interpersonal relationships when faced

with hardships. Many members of professional groups indicated that trust was an

essential component in collaborative and collegial settings (Meyer et al., 2020).

Trust in adult groups caused significant benefits for both individuals and the

group. Trust led to greater collaboration, increased creativity and innovation, improved

problem-solving, and better group performance. It also created a sense of belonging and

social support among group members, which contributed to greater well-being and

satisfaction (Bouchrika, 2022).

Summary

Teachers used to live and work in isolation. Educators had to rely on their own

expertise and knowledge to ensure student achievement. With the rise of PLCs, that

isolation was retired and collaborative practices moved to the forefront of the educational

model. Collaborative practices involve the ability of individuals to meet, plan, and find

collective consensus on assorted topics the group faced throughout the school year(s).

Teams that showed trust between members found higher levels of collective efficacy,

which allowed for elevated levels of success in student achievement, the PLC process's

goal. Trust played an influential role in the way teams operated and functioned. It became

clear throughout the research that the PLC process required members to put aside their

egos for the group's sake. Members needed to believe in the competency and capabilities

of their colleagues. Individuals needed to form interpersonal relationships that assumed

the best intent from fellow members. Trust was a critical factor in the functioning of adult

groups. Building and maintaining trust requires positive relationships, effective

communication, strong leadership, and shared values and experiences. When trust was

present in adult groups, trust led to a range of benefits for both individuals and the group.

The basis of functionality was trust between collaborators. This study aimed to

investigate if trust could be grown with the assistance of an intervention in a suburban

PLC in Saint Lous, MO. The next chapter outlines the methodology for this study.

Chapter Three: Research Method and Design

Introduction

The purpose of this qualitative study was to investigate the team functioning (specifically in terms of trust) of a Midwest, suburban Professional Learning Community (PLC). The researcher examined the levels of functioning using pretest and posttest survey data of eight PLC members collected in the Fall 2022 school semester. Participants were also asked to participate in weekly survey check-ins which revolved around the usage of the researcher-created intervention. The intervention used by the PLC was inspired by Thinking Collaborative's Adaptive Schools strategies. The researcher also explored the application of an intervention through weekly journaling following the PLC team's meetings. The PLC team members, comprised of six to nine members of the English department teaching sixth grade, completed a weekly open-ended and Likert-scaled team reflection survey. Research participants began the study with a pre-test of the Team Trust Survey in August 2022 and ended the study with a post-test of the Team Trust Survey in December 2022. Research results were shared with the researcher's school and district to help increase trust and team functionality levels as measured by the Team Trust Survey.

The qualitative study sample was small. Only eight members were involved in the pretest-posttest data collection and those eight members were the same participants in the weekly open-ended surveys. According to McMillian (2012), "The purpose of sampling is to obtain a group of subjects who will . . . provide specific information needed" (p. 86). The researcher employed a convenience sampling method because she only had the eight members available for her observations due to scheduling and availability. Because the

researcher was interested in a specific relationship between trust and group functionality, convenience sampling was the best method available for this study. McMillan (2012) wrote that convenience sampling is the best option when, "the primary purpose of the study may not be to generalize but to better understand a relationship that may exist" (p. 90). For a sample size this small the researcher understood that generalizations were not possible because the results could not be made to be indicative of a larger population and sample size.

The qualitative study allowed the production of various types of data, both qualitative and quantitative. The results allowed for deeper understanding and analysis of the results. The qualitative portion of the study allowed the researcher to gather observations throughout the semester. Keeping a journal of behavioral observations allowed the researcher to analyze and explore themes across the data collection period. The weekly open-ended survey of participants allowed for connections between the researcher's observations and fellow team members' opinions of the same experiences. These surveys allowed for feedback that was invaluable to the researcher's understanding of the evolution the team went through in the semester. Naidoo (2012) "open the doors for communication and thereby improve the chances of the adoption of change" (p. 71). The quantitative portion of the study allowed the researcher to examine the differences in pre and post test data to see whether team members reported a difference in the perceptions of the team from August to December of 2022.

Currently there are no studies on the Team Trust Survey in relation to an intervention. The researcher aimed to address the levels of functioning within the group through targeted intervention and weekly check-ins with team members. By examining

the existing state of levels of functioning, PLCs, school climate, professional

development, andragogy, the impacts on efficacy, both self and collective, and eventually

the impact of trust on adult relationships, the researcher created the basis of the study

with the potential to help other struggling PLCs and teacher teams find common ground

and success in working together.

Research Questions

Research Question 1: How do responses on the Team Trust Survey differ from

pre to posttest?

Research Question 2: How do participant responses on the weekly survey differ

in observable ways during the intervention period?

Research Question 3: How do the PLC participants perceive the level of

functioning during the intervention process?

*Research Question 4***:** How does the researcher perceive the level of functioning

with participants during the intervention process?

Procedures

The researcher first gained permission from the Assistant Superintendent of

Curriculum and Instruction within the suburban district the researcher planned to conduct

research through. Permission was obtained via email. The researcher then gained

Prospectus approval first through the researcher's dissertation committee and then

through the Institutional Review Board of the study university. Once permission was

obtained from both institutions, the researcher reached out to potential participants via

email, asking if each person was interested in participation. The researcher was clear that

participation was voluntary. Once participants agreed to take part in the study, the

researcher had potential participants complete the Research Study Consent Form
(Appendix A).

The study's participants were pulled from a pool of candidates known to the
researcher. The researcher developed this study idea based on the previous performance
of the researcher's PLC throughout the three years prior to the study. The researcher was
an active member of the PLC group, and the non-evaluative department chair for the
PLC's content area. The team's performance was directly tied to both aspects of the
researcher's job and therefore of great interest to the researcher.

The researcher needed permission to use the Team Trust Survey (Appendix B)
from the creator. The researcher emailed Oestreich, the survey creator, to ask about test
validation and to request permission to use the Team Trust Survey in the study.
Permission was obtained in March of 2022 (Appendix D). Test validation was not
available as the creator never intended the test to be used in this way before the
researcher inquired for permissions. The creator asked that any results be shared with him
when he granted permission.

Participants

The participants in the study were the researcher's colleagues. The researcher
gathered data from the researcher's own PLC team and served as the department chair of
the ELA team in a non-evaluative position. The study was not related to any overall
performance evaluations. The researcher referred to all members with non-identifying
information to ensure anonymity throughout the process. A doctoral student at
Lindenwood university with NIH certification worked as a research assistant to schedule

weekly open-ended surveys to the study participants. The research assistant gave the Team Trust Survey pretest in August and the Team Trust Survey posttest in December.

The researcher worked in a small, suburban school with many resources. One of the benefits of this setting was the number of teachers the district was able to hire and maintain for each content area. Teacher teams were often two to three people across the school, but the researcher's content was able to staff a team of six teachers, one instructional coach, and one reading strategist. The years of experience varied throughout the PLC.

Prior to the study two members had retired. The team saw a large turnover in the year of the researcher's study. Teaching experience ranged from one first year teacher, three teachers within the 10–15-year range of their careers (two content and one reading strategist), and four teachers with 20+ years of experience. The teachers with 20+ years of experience were all joining the team from schools that had not emphasized collaborative practices. These teachers were used to operating on their own with autonomy. The three teachers in the 10-15-year range of experience were used to working closely with PLC members. Two of these teachers had moved from the same school and had worked together previously. The new teacher had worked in the building as a teacher's assistant for a few years and was familiar with the dynamics of the group before joining. Because the study focused on a small sample size, it was imperative that the researcher collect as much data as possible throughout the course of the study. Profiles of the study participants were seen as a crucial part of the study.

All subjects held a vested interest in the outcomes of the study. This study directly impacted participants' professional experiences. The level of functioning of the PLC was

part of the participants' overall evaluation system as employees, as well as a vital part of

each participants' job satisfaction. Participants voluntarily enrolled in the study and the

researcher perceived a level of eagerness to address some of the problems that had

plagued the team for some time.

The researcher attempted to identify the difference in PLC members' level of

functioning pre/post a PLC intervention within a middle-school-level group of educators

in a suburban school in St. Louis, MO. The qualitative study involved a sample of five to

eight participants chosen through the convenience sampling method out of a population

of 84. According to Fraenkel et.al. (2009), "A convenience sample is a group of

individuals who (conveniently) are available for study" (p. 99). The sample was

nonrandom and based on the researcher's interest in improving dynamics of the team

selected, therefore the sample was a mix of convenience and purposive.

The researcher was interested in the sample population due to the personal history

the researcher shares with the group. While the sample size was not indicative of all

PLCs, there were constraints in place that the researcher could not reasonably overcome

due to restrictions in meeting sizes, scheduling limitations, and grouping interests. The

researcher believed the sample to be, ". . . as large as the researcher can obtain with a

reasonable expenditure of time and energy" (Fraenkel et al., 2009, p. 102). The researcher

understood that generalizing based on the study would not make sense because,

"population generalizability refers to the degree to which a sample represents the

population of interest" (p. 103). The researcher avoided generalizations for larger groups

and adhered to theming within the study's team.

Intervention

Thinking Collaboratively created the "Freeing Stuck Groups" Adaptive Schools strategy which served as the inspiration for the researcher's intervention. The strategy encouraged team members to create questions collaboratively to review at the beginning of each meeting. The team then implemented the questions when the team reached a point at which the team was no longer moving forward. The researcher adapted this intervention to facilitate a conversation with team members about expected outcomes at each weekly meeting. Based on those conversations and research-based strategies, the team created norms and expectations the team reviewed at the beginning of each weekly meeting. Members of the PLC verbally agreed to the norms before each meeting and one member (rotating position) was asked to act as the "referee" during each meeting to ensure norms were adhered to. In the case that the referee was unable or unwilling to intervene, the researcher became the member to remind other members of the expectations.

Data Collection

Pre/Post Tests

The researcher gained permission to utilize the Team Trust Survey (Appendix B) from the creator of the survey. This survey was used as the pretest and posttest at the beginning and end of the Fall 2022 semester. The survey consisted of six questions in which participants were asked to rank five statements per question. The ranking was a 1 to 5 system, with one being the ranking *least* like the team's current level of functioning and five being the team's *most* similar ranking to the team's current level of functioning.

The pretest was given in August of 2022. The posttest was then given to the same team members in December of 2022.

Open-ended Surveys

Throughout the Fall 2022 semester, a weekly open-ended survey was given via Google Forms (Appendix C) within the researcher's professional network. Each member of the team who participated during the weekly meeting was asked to fill out a survey stating the level of functioning the team member perceived the team to be operating within that week, whether the team member believed the intervention was utilized during that week's meeting, and if the team member wished to offer commentary on the weekly meeting. The researcher expected a total of at least 10 weeks' worth of open-ended survey data. Team members completed a total of 14 weekly open-ended surveys throughout the course of the semester. These surveys required the addition of another Null Hypothesis statement to show observable differences in participant responses from week to week.

Journaling

The qualitative portion of the study relied heavily on team members' willingness to discuss perceptions of the team's level of functioning. The researcher believed it was imperative to keep an ongoing journal which described the researcher's perceptions of the weekly meetings. This journal allowed the researcher to compare the journaled perception with the perceptions of the other team members' open-ended survey responses each week. This comparison allowed for broader theming throughout the study period.

The researcher began each journal entry with an assessment of the team's level of functioning for that week. The researcher then wrote down noteworthy actions, words,

interactions, and contributions from the team during the meeting period. The researcher

was an active participant in the team meetings, so the journaling had to happen after each

meeting. The researcher attempted to write the journal entry the same day as the meeting

in order to best capture the data. The researcher did not complete a weekly journal entry

if the researcher was not present for the meeting. The researcher expected to collect at

least 10 journal entries. The researcher completed 14 journal entries throughout the

course of the semester.

Scoring

Anonymity

The research assistant removed all identifying markers from the surveys sent to

participants. The researcher asked, via email (all available through the school database

and known to the researcher), if all members were willing to participate and awaited

confirmation from the members. Individuals were informed of the right to remove

themselves at any point in the study with no coercive acts on the researcher's part. No

individual chose to exclude themselves from participation at any point in the study.

Pre/Post Tests

The researcher used the existing scoring guidelines for the Team Trust Survey

(Appendix B). Each question was tabulated with the corresponding number the

participant marked as the participant's ranking for each statement. The resulting numbers

were placed in order in the question's column. Each column held the numbers one

through five in relation to the ranking. Once the columns were filled out the researcher

added the rows together to tabulate that level of functioning's score. Whichever row was

highest resulted in that participant's ranking of the team. The rankings were Ideal (+2), High Functioning (+1), Traditional (0), Low Functioning (-1), and Disintegrating (-2).

The researcher used Google Forms (Appendix C) to collect the weekly open-ended survey. Google Forms sent the data collected to Google Sheets, which formed a weekly comparison of the data. The scores were compared against one another to see an upward growth trend across the period of the study. The form asked three questions and was sent directly after the weekly meetings ended. Question one simply asked participants if the individual believed the intervention had been followed during the meeting. This question was answerable with three options: "Yes," "Somewhat," and "No." If "No" was selected then those results were used in the tabulation for the final graph created, as those results did not fall within the study's parameters. There were no responses that selected "No."

Question two asked participants which level of functioning the individual believed the team achieved during the meeting. This response was recorded in order to show growth, decline, or stagnancy over the course of the study period. As the data were based solely on perceptions of the participants, this required a third question.

The third question was an open-ended commentary on that week's meeting. The third question was optional, but imperative for the researcher's overall understanding of the perceptions each member of the team held during the study period. Team members were asked to describe their experience and perceptions during the meeting and the researcher used these comments to create themes across the course of the study in relation to the researcher's journal.

Limitations

Internal and External Validity

Fraenkel and Wallen (2009) wrote that internal validity "means that any relationship observed between two or more variables should be unambiguous as to what it means rather than being due to 'something else'" (p. 179). A limitation to internal validity was the researcher's close relationship with the study participants. The researcher held long-established professional and personal relationships with the members of the PLC team. The history of the team was a factor in the daily interactions the team members held throughout the study period. Another factor which impacted internal validity was the role of department chair held by the researcher. Though the position was non-evaluative, there was an expectation on the participants of adhering to the policies and procedures created by the researcher though the role of department chair. The relationships between the members of the team meant that participants may have answered questions based on the perception of the researcher's desired outcomes versus the levels of functioning everyone actually perceived within the PLC.

External validity was defined as a generalization and application of study results toward a larger population outside of the original sample (Salkind, 2010). External validity was limited due to the small sample size of one PLC within one small, suburban school. The study did not result in any generalizability due to this extremely limited sample size. Furthermore, as there was no previous validity test for the Team Trust Survey, it was impossible for the researcher to compare results to previous data.

Summary

This study examined the usage of a researcher-created intervention on the perceived levels of functioning within a PLC group in a suburban middle school in St. Louis, MO. The researcher collected data using the Team Trust Survey, which quantified perceptions of trust to help teams explore shared experiences and expectations. The researcher also used weekly, open-ended surveys to gauge the perceptions of the intervention, levels of functioning, and personal views of the team members throughout the course of the Fall 2022 semester. The researcher utilized an action research case study methodology and analyzed all collected data through the lens of the researcher's own perceptions as compared to the individuals in the PLC group. This qualitative approach was used to gather data and qualitative feedback throughout the process. The following chapter will interpret and clarify the findings of the study.

Chapter Four: Results

Overview

In this action research case study, the researcher investigated the potential influence of an intervention on the levels of functioning within a PLC team. The focus of the study was to see if and how a researcher-developed intervention could change the perceptions of the levels of functioning for PLC team meetings each individual team member held throughout the course of the Fall 2022 semester. The researcher was curious to see if a developed and maintained intervention course could create change in the perception of team functioning when adhered to throughout the study period. The researcher was also curious to see if the team could continue to function at a stable level of functioning once a desired state had been attained by the team, as agreed upon by each team member at the beginning of the study. The researcher provided voluntary pretests and posttests to each participant at the beginning and end of the study period, as well as weekly check-ins throughout the course of the study to assess if change was occurring.

Analysis consisted of a comparison between the pretest and posttest data from the Team Trust Survey administered in August of 2022 and again in December of 2022 to the same group of participants. The open-ended survey results of the Weekly Check-in were used as qualitative data collection due to the open-ended comments option. Other qualitative data consisted of the researcher's weekly journal. The researcher compared the perceptions of the team's level of functioning to the perceptions of anonymous team members through the comments in the open-ended survey each week. The results of the data collected and examined provided insight into the overall practices of the team, as

well as potential interventions and pathways for struggling teams to reach a desired level of functioning.

The study was originally created as a mixed-methods study. During the analysis component, the team decided to report descriptive statistics with no *t*-test analysis, noting observable differences. The sample size was determined by Dr. Wisdom, a statistical expert and member of the researcher's dissertation team, to be too small to run statistical tests. However, there was clearly an observable difference between the pretest and posttest data and the researcher wished to include the data.

Research Question 1

Research Question 1: How do responses on the Team Trust Survey differ from pretest to posttest?

Pretest

The Team Trust Survey Pretest was administered in August of 2022 to eight members of the PLC in the action research study. Each member remained anonymous, and the researcher explained that each pretest would be scored after participants ranked the statements in the six questions. Each of the six questions consisted of five statements. Participants were asked to rank the statements with numbers 1 through 5. A ranking of "1" meant that statement *least* reflected the team member's perception of the team's functioning during the meeting. A Ranking of "5" meant that the statements *most* closely reflected the team member's perception of the team's functioning during the meeting.

The Team Trust Survey asked participants to rank statements on a one to five scale for each question. The questions were all correlated to a level of functioning on the final scoring guide. For each question, the statements were ranked by level of functioning

by the researcher and then the researcher showed how many participants rated the level of

functioning as the most accurate representation of the team's current level of functioning.

Question 1 discussed the general perception of feelings in relation to conflict

within the team. The researcher noted that all team members ranked the team at or below

a "Traditional" level of functioning, which indicated to the researcher that conflicts were

high during the beginning of the study period. See Table 1 for participant's ratings.

Table 1

Question 1 Pretest, Statement Ranking

Answer Options	Description	Number of Participant Responses
Ideal Functioning	People give each other direct, personal, and constructive performance and interpersonal feedback in team meetings with everyone participating in a frank dialogue about the issues.	0
High Functioning	People are able to fully work through their differences or their concerns about others performance problems in one-on-one meetings without the leader needing to be involved.	0
Traditional Functioning	People are generally expected to get along. If there are personal conflicts or performance problems, they are supposed to be handled between the members involved but often still end up with the leader.	2

Continued

Table 1 - continued

		4
Low Functioning	People are critical and blaming of each other in the background – their feedback to one another leaks into team meetings through put-downs or subtle jabs .	
Disintegrating	People seem to be in an open war with one another, justifying their hostile and insulting feedback to one another	2

Note. Portions of Table 1 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question 2 attempted to measure the perception team members had about relationships within the group. A score of five in this question indicated that group members felt supported, encouraged, and confident within the group. A score of one indicated that members felt open conflict with other group members and were unwilling to resolve conflicts with one another. See Table 2 for participant's ratings.

Table 2

Question 2 Pretest, Statement Ranking

Answer Options	Description	Number of Participant Responses
Ideal Functioning	In group meetings, people openly share their personal development challenges and patterns (e.g., lack of confidence, insensitivity) in a vulnerable way, receiving emotional support and guidance from other team members.	0

Table 2 - continued

High Functioning	Members take the risk to ask for sensitive feedback in a team setting (e.g., about a mistake they've caused in a project or in a relationship with another team member) and apologize publicly.	0
Traditional Functioning	People maintain positive professional decorum and stay task-focused. Personal growth and team relationships are often considered too "touchy-feely" to spend much time on.	2
Low Functioning	Team members are closed and careful in team meetings. The group is divided into alliances and cliques.	4
Disintegrating	Group members walk out of meetings or simply refuse to meet because conflicts have become destructive and "too personal."	2

Note. Portions of Table 2 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Three attempted to determine the perceptions of decision-making within the team's functioning. The statements led participants to rank whether the individual believed the team could function without a set leader (Ideal Level of Functioning) *or* if decision-making power contributed to the overall problems the team faced during meetings (Disintegrating Level of Functioning). See Table 3 for participants' ratings.

Table 3

Question 3 Pretest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	The group "leads itself" with members taking full, shared responsibility for one another's performance and trust levels. The leader is a strategic guide who mentors but does not need to actively guide the team.	0
High Functioning	The leader is a good facilitator, helping people through their conflicts and joint decisions as the group learns and develops	0
Traditional Functioning	The leader is the central decision-maker, coaching the group to stay on track and efficiently accomplish its goals and projects.	2
Low Functioning	Decisions take too long, go unsupported, or are undermined by members after group meetings. Team members feel the group is inadequately led.	3
Disintegrating	One or more people (including the leader) are viewed as the core problems of the group. Decisions are mired in self-serving arguments.	3

Note. Portions of Table 3 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Four attempted to gauge the level of compromise and cooperation within the group. Each statement revolved around the idea of the interpersonal relationships within the group and the part those relationships played in problem-solving during conflict. The statements also addressed perceptions about combined efforts and teamwork within the team, specifically in terms of roles each team member took on during performance-based tasks. See Table 4 for participants' ratings.

Table 4

Question 4 Pretest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	Members use their conflicts constructively to break out of roles and mental sets. They actively pool their resources (time, money, people, ideas) to generate exciting solutions no one could have come up with alone.	0
High Functioning	Members coordinate their actions to most effectively reach the goals they have defined together. Although they prefer their separate roles and resources, they regularly look for win/win improvements that will serve the team and its customers.	0
Traditional Functioning	Clear roles and accountabilities and a spirit of cooperation solve most team challenges. Members respect the need to do their part and avoid stepping on one another's toes.	0

Continued

Table 4 - continued

Low Functioning	In problem-solving sessions, members compete with one another to be right and to protect their interests and resources. People are concerned about others' hidden agendas.	6
Disintegrating	People are unable to compromise. The group is stuck because talking itself has become a lose/lose proposition.	2

Note. Portions of Table 4 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Five revolved around the confrontation of conflict within the team. Each statement asked for participants' perceptions about how conflict and issues were addressed within the group setting. The statements pointed out that teams functioning at lower levels saw blatant mistrust and blame within the group. See Table 5 for participants' ratings.

Table 5

Question 5 Pretest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	Anyone on the team can bring up a painful or sensitive issue in a team meeting. All join in constructively to address the problem. This can include major mistakes, ethical issues, betrayals, or other serious conflicts within the group.	0

Continued

Table 5 - continued

High Functioning	Once someone has had the courage to place a sensitive issue of any kind on the table, others join in to help resolve it. The leader may be the main person to bring up such issues, but not always.	0
Traditional Functioning	If difficult issues surface in a meeting, they are usually met with an uncomfortable silence; then are handled quickly or diplomatically to avoid too much awkwardness.	1
Low Functioning	The team environment is less than safe. People talk about "undiscussables" in the background but hesitate to bring them up in meetings because of possible repercussions or because it won't do any good.	3
Disintegrating	Open, unresolved mistrust and blaming have overtaken the group's ability to discuss issues productively, even everyday ones that aren't very sensitive or interpersonally demanding.	4

Note. Portions of Table 5 from Oestreich, D. K. (2011). *Team Trust Survey.* Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Six measured the perceptions of belonging within the team community.

Belonging encompassed feelings of appreciation, respect, and recognition from other

team members. In a team setting, this question referred to the sense of appreciation

members experienced during contributions and use of individual knowledge, experience,

and/or expertise. See Table 6 for participants' ratings.

Table 6

Question 6 Pretest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	The team is a true community, affirming and appreciating each person and helping that individual make the best use of his or her special talents as a unique life path. Members develop deep, lasting connections as friends and colleagues.	0
High Functioning	People make a special point of welcoming, recognizing, and responding to others' abilities and special talents, no matter how long a person has been a member of the group.	0
Traditional Functioning	Members generally offer respect and recognition to each other, especially those who are considered highly competent by virtue of their expertise and experience.	0
Low Functioning	Members tend to focus more on what each other does not have or does not do than on their positive attributes. People may use job titles, pay differences or other perks to compensate for lack of recognition.	6
Disintegrating	Members feel ignored, abused, or intimidated; the environment is focused on public punishment for mistakes.	2

Note. Portions of Table 6 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Posttest

The Team Trust Survey posttest was administered in December of 2022 to eight team members of the PLC engaged in the action research study. The researcher reminded team members to remain anonymous in their responses and asked team members to place responses with the researcher's research assistant to maintain anonymity throughout the process. Once the researcher collected the posttest the researcher was able to score the tests based on the statement rankings of each participant's responses. The same test was administered for pretest and posttest.

Question 1 addressed the overall perception of emotions in the context of conflicts within the team. A higher rating for this question indicated that participants felt at ease expressing themselves freely within the group and received constructive feedback comfortably on both personal and professional levels. Participants also believed that the team was competent in resolving interpersonal conflicts without the need for external intervention. Please refer to Table 7 for the ratings given by the participants.

Table 7

Question 1 Posttest, Statement Ranking

Answer Options	Description	Number of Participant Responses
Ideal Functioning	People give each other direct, personal, and constructive performance and interpersonal feedback in team meetings with everyone participating in a frank dialogue about the issues.	1
	Continued	

Table 7 - continued

High Functioning	People are able to fully work through their differences or their concerns about others performance problems in one-on-one meetings without the leader needing to be involved.	3
Traditional Functioning	People are generally expected to get along. If there are personal conflicts or performance problems, they are supposed to be handled between the members involved but often still end up with the leader.	3
Low Functioning	People are critical and blaming of each other in the background – their feedback to one another leaks into team meetings through put-downs or subtle jabs .	1
Disintegrating	People seem to be in an open war with one another, justifying their hostile and insulting feedback to one another	0

Note. Portions of Table 7 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question 2 aimed to gauge participants' perceptions of the relationships among team members. A higher rating in response to this question indicated that participants felt safe expressing their challenges to other team members who responded with empathy and sensitivity. Additionally, participants believed that issues with other team members were resolved through interpersonal communication, and apologies were offered and accepted genuinely. Please refer to Table 8 for the ratings provided by the participants.

Table 8

Question 2 Posttest, Statement Ranking

Answer Options	Description	Number of Participant Responses
Ideal Functioning	In group meetings, people openly share their personal development challenges and patterns (e.g., lack of confidence, insensitivity) in a vulnerable way, receiving emotional support and guidance from other team members.	5
High Functioning	Members take the risk to ask for sensitive feedback in a team setting (e.g., about a mistake they've caused in a project or in a relationship with another team member) and apologize publicly.	0
Traditional Functioning	People maintain positive professional decorum and stay task-focused. Personal growth and team relationships are often considered too "touchy-feely" to spend much time on.	3
Low Functioning	Team members are closed and careful in team meetings. The group is divided into alliances and cliques.	0
Disintegrating	Group members walk out of meetings or simply refuse to meet because conflicts have become destructive and "too personal."	0

Note. Portions of Table 8 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Three aimed to assess participants' perceptions of leadership in the team's operations. The statements asked participants to rank their belief in whether the team could function effectively without a designated leader (Ideal Level of Functioning), based on open communication and a general sense of safety and protection within the group. Alternatively, the statements probed whether the leader contributed to the team's overall issues during meetings, indicating a disintegrating level of functioning due to control issues. Please refer to Table 9 for the ratings assigned by the participants.

Table 9

Question 3 Posttest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	The group "leads itself" with members taking full, shared responsibility for one another's performance and trust levels. The leader is a strategic guide who mentors but does not need to actively guide the team.	0
High Functioning	The leader is a good facilitator, helping people through their conflicts and joint decisions as the group learns and develops	5
Traditional Functioning	The leader is the central decision-maker, coaching the group to stay on track and efficiently accomplish its goals and projects.	3
Low Functioning	Decisions take too long, go unsupported, or are undermined by members after group meetings. Team members feel the group is inadequately led.	0

Table 9 - continued		
Disintegrating	One or more people (including the leader) are viewed as the core problems of the group. Decisions are mired in self-serving arguments.	0

Note. Portions of Table 9 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Four aimed to assess the extent of collaboration and harmony among the members of the group. The statements focused on the dynamics of interpersonal relationships within the group and their impact on resolving conflicts. Additionally, the statements explored participants' views on the level of teamwork and joint efforts within the team, particularly regarding the roles undertaken by each member during performance-based assignments. Please refer to Table 10 for the ratings given by the participants.

Table 10

Question 4 Posttest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	Members use their conflicts constructively to break out of roles and mental sets. They actively pool their resources (time, money, people, ideas) to generate exciting solutions no one could have come up with alone.	2
		Continued

Table 10 - continued

High Functioning	Members coordinate their actions to most effectively reach the goals they have defined together. Although they prefer their separate roles and resources, they regularly look for win/win improvements that will serve the team and its customers.	3
Traditional Functioning	Clear roles and accountabilities and a spirit of cooperation solve most team challenges. Members respect the need to do their part and avoid stepping on one another's toes.	3
Low Functioning	In problem-solving sessions, members compete with one another to be right and to protect their interests and resources. People are concerned about others' hidden agendas.	0
Disintegrating	People are unable to compromise. The group is stuck because talking itself has become a lose/lose proposition.	0

Note. Portions of Table 10 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Five focused on how the team handles conflicts. Each statement sought to understand participants' views on the team's approach to addressing conflicts and issues that arise within the group. The statements highlighted that teams that perform poorly tend to exhibit open mistrust and a tendency to blame one another. Please refer to Table 11 for the ratings provided by the participants.

Table 11

Question 5 Posttest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	Anyone on the team can bring up a painful or sensitive issue in a team meeting. All join in constructively to address the problem. This can include major mistakes, ethical issues, betrayals, or other serious conflicts within the group.	2
High Functioning	Once someone has had the courage to place a sensitive issue of any kind on the table, others join in to help resolve it. The leader may be the main person to bring up such issues, but not always.	3
Traditional Functioning	If difficult issues surface in a meeting, they are usually met with an uncomfortable silence; then are handled quickly or diplomatically to avoid too much awkwardness.	3
Low Functioning	The team environment is less than safe. People talk about "undiscussables" in the background but hesitate to bring them up in meetings because of possible repercussions or because it won't do any good.	0
Disintegrating	Open, unresolved mistrust and blaming have overtaken the group's ability to discuss issues productively, even everyday ones that aren't very sensitive or interpersonally demanding.	0

Note. Portions of Table 11 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Question Six measured the perceptions of belonging within the team community. Belonging encompassed feelings of appreciation, respect, and recognition from other team members. In a team setting, this question referred to the sense of appreciation members experienced during contributions and use of individual knowledge, experience, and/or expertise. Please refer to Table 12 for the ratings provided by the participants.

Table 12

Question 6 Posttest, Statement Rankings

Answer Option	Description	Number of Participant Responses
Ideal Functioning	The team is a true community, affirming and appreciating each person and helping that individual make the best use of his or her special talents as a unique life path. Members develop deep, lasting connections as friends and colleagues.	2
High Functioning	People make a special point of welcoming, recognizing and responding to others abilities and special talents, no matter how long a person has been a member of the group.	3
Traditional Functioning	Members generally offer respect and recognition to each other, especially those who are considered highly competent by virtue of their expertise and experience.	3

Continued

Table 12 - continued

<u>**Low Functioning**</u>	<u>Members tend to focus more on what each other does not have or does not do than on their positive attributes. People may use job titles, pay differences or other perks to compensate for lack of recognition.</u>	<u>0</u>
<u>**Disintegrating**</u>	<u>Members feel ignored, abused, or intimidated; the environment is focused on public punishment for mistakes.</u>	<u>0</u>

Note. Portions of Table 12 from Oestreich, D. K. (2011). *Team Trust Survey*. Theory of team development. Retrieved July 6, 2022, from https://teamtrustsurvey.com/. Number of Participant responses ranged from 0-8.

Final Ranking Differentiation

The researcher compiled the statement rankings for each question and tabulated results as instructed on the Team Trust Survey for the pretest, collected in August 2022, and the posttest, collected in December 2022, responses. Please refer to Figure 1 to see the overall rankings of the level of functioning for the pretest and posttest surveys.

Figure 1

Pretest and Posttest Participants Responses on Levels of Functioning
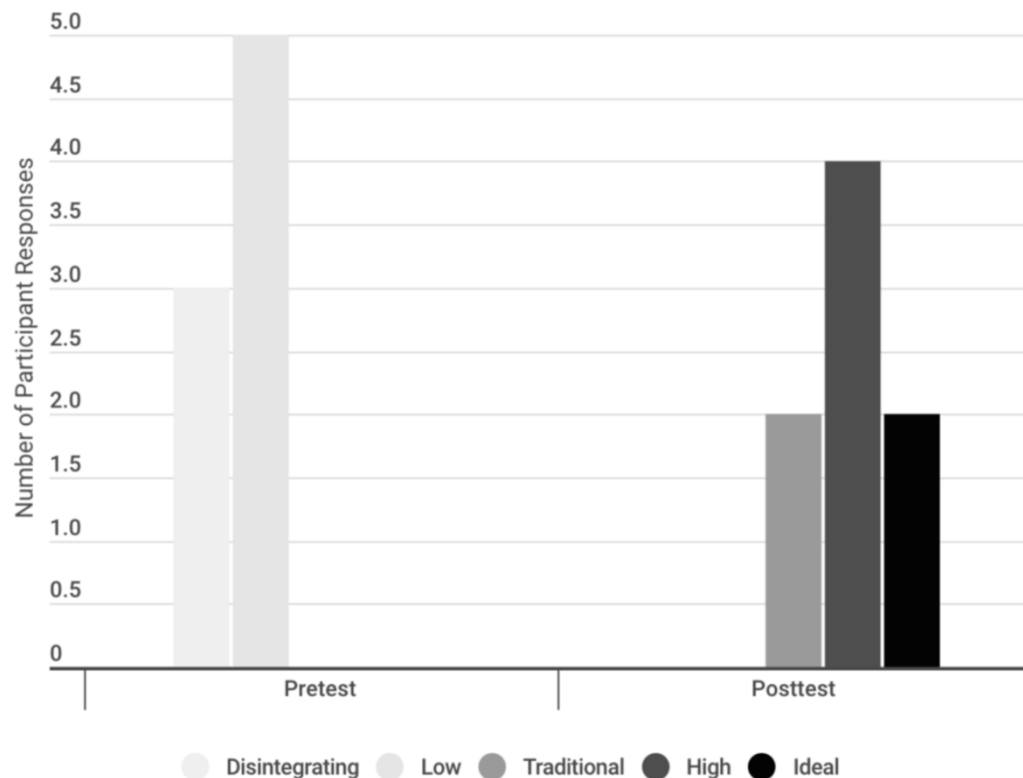
Note. Number and ranking of participants responses Pretest and Posttest. The figure was created by the researcher using Infogram (2023).

The observable differences between the pretest and posttest responses on the Team Trust Survey were clear to the researcher. The pretest statement rankings by participants overwhelmingly fell in the disintegrating, low, and traditional levels of function. The posttest data shows a much higher concentration in the traditional, high, and ideal levels of functioning. While no statistical test was run, there were observable differences indicated.

Research Question 2

Research Question 2: How do participant responses on the weekly survey differ in observable ways during the intervention period?

The researcher conducted a weekly survey throughout the course of the intervention period. Each week, participants were asked to report perceptions about the level of functioning the team achieved for the meeting, and how the intervention had or had not played a part in the level of functioning. For 14 weeks, participants ranked the team as either disintegrating, low, traditional, high, or ideal based on the participant's opinion and experiences. The chart below (See Figure 2) shows the differences in responses throughout the course of the intervention period.

Figure 2

Weekly Participant Responses on Levels of Functioning
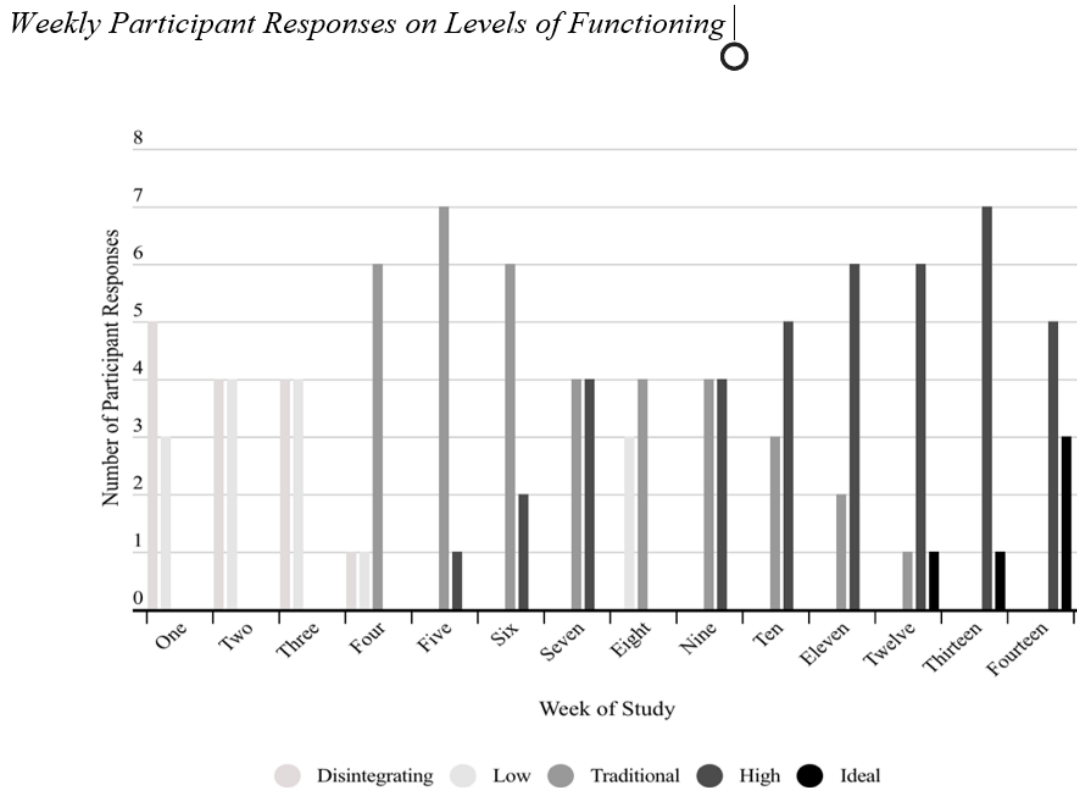
Note. Number and ranking of participants responses throughout the course of intervention. The figure was created by the researcher using Infogram (2023).

The researcher decided to break the 14-week intervention period into three distinct periods to report the findings. The beginning of the intervention period, weeks one through four, showed respondents almost exclusively perceived the team to be at

Disintegrating or Low levels of functioning. The descriptions for the levels of functioning were part of the survey. A Disintegrating rank meant the team member perceived the team to be in open conflict and turmoil, where blame and anger dominated the proceedings of the team. A Low rank meant the participant perceived the team to be experiencing low levels of trust, with stress and frustration over-taking all other priorities. The researcher further explored participants' perceptions in the research questions later in the chapter. In week four there was an uptick in the number of respondents perceiving the team to be at a Traditional level of functioning.

The researcher considered the middle portion of the intervention period to be weeks five through nine. During this time, respondents began scoring the team at higher levels, mostly in the Traditional category throughout weeks five and six. The Traditional level of functioning assignment indicated the team was better able to focus on task completion and the expectations, cooperation, and communication were improving. In week seven the team was split evenly between Traditional and High. A high functioning team indicated openness and cooperation throughout the group, and an ability to focus on higher level tasks would be difficult for dysfunctional teams to address. In week eight setbacks occurred; the researcher explored the setbacks later in the chapter. Three members indicated the team had moved back into the Low level of functioning. Five members believed the team still functioned at the Traditional level. The researcher was not present this week. While the participants all indicated the intervention had been utilized, the researcher did not know how much fidelity was used in the implementation of the intervention in week eight. In week nine, the end of the "middle" period of the

intervention, the team once again indicated the levels of functioning were in the

Traditional and High categories.

Weeks 10 through 14 were the final five weeks of the intervention period. The

researcher noted the first-time team members indicated the team was functioning at an

Ideal level in week 11. An Ideal team functioned as a constructive unit when trust and

cooperation were the foundation of the interactions. Team members believed peers

worked with them and toward bigger picture goals. In the final two weeks of the study

(weeks 13 and 14) no team members perceived the team to be functioning at a level lower

than "High."

The researcher noted observable differences in the responses at the beginning of

the intervention period versus the end of the intervention period. To further understand

the differences in perceptions, the researcher also included open-ended survey questions

for comments and opinions each week explored in research question three.

Research Question 3

Research Question 3: How do the PLC participants perceive the level of

functioning during the intervention process?

The researcher was interested in finding differences or growth in the perceptions

of levels of functioning throughout the course of the research study. The researcher

created and implemented an intervention with the team's input. To measure if the

intervention was being utilized each week, the researcher included the statement, "Please

indicate if you believe the intervention was used during today's meeting" in every weekly

questionnaire. Participants could respond with "Yes," "No," or "Somewhat." Across the

14 weeks of the study, each team member completed the survey and indicated the

intervention was used 100% of the time.

The researcher analyzed the data for themes about the intervention and the part

the intervention played in the team members' perceptions about the level of functioning

throughout the course of the study. The researcher focused on the beginning, middle, and

end of the study. The researcher decided to use a word cloud generator to identify

common themes in responses throughout the weekly open-ended surveys. The researcher

created three Word Clouds (Figures 3, 4, and 5) to represent the beginning, middle, and

end themes. The beginning of the study showed negative themes, as the researcher

expected.

Weeks 1-4

Figure 3

Weeks 1-4 Word Cloud

Note. Weekly responses to the open-ended survey were compiled to form this word
cloud. The researcher used Free Word Cloud Generator (2023).
        Dysfunction. Overall, the responses in the first few weeks of the survey focused

on the on-going dysfunction the team had faced in the past and current state of the PLC.

One member's response to the open-ended survey for the first week said, 'It felt like

personal issues that did not relate to school issues were brought into the meeting.' The

sentiment was common across responses. Members indicated most issues discussed

tended to be of a personal nature. Another member responded, 'This meeting felt more

like a personal attack on one member than it did an actual meeting. It isn't fair to gang up

on someone.'

   Blame. Throughout the beginning of the study a common theme of blame arose

across participants' responses. Participants had been asked to refrain from naming other

members in the responses to the survey, but not all members complied with the request.

Blame was placed in a few different spots. One member said, '[member's name] is more

likely to cut someone off and take over the conversation than they are to listen to other

team members' opinions.' This comment was interesting to the researcher as two other

members commented on the same idea about the first member. As one member stated in

week two, 'There seems to be little self-awareness across the group.'

   Throughout the course of the first four weeks the researcher was very careful to

ensure that the intervention was being followed precisely. This was a necessary step to

coax the group toward a higher level of functioning. Participants all indicated the belief

the intervention was helpful, but the participants could easily be drawn off task during the

beginning of the study. The group had previously interacted in very negative ways. When

the researcher asked participants to enter meetings with a clean slate and open mind,

some members experienced difficulties. One member said, 'This is a new way of

operating for us. Some of us seem to be trying our best, but there is a lot of history to

overcome.' This response further indicated that blame was a large component in the dysfunction and avoidance that the researcher discussed often in the research journal.

Some members indicated feelings of defensiveness throughout the beginning of the study. 'When a member is trying to stick up for themselves, other members are shutting them down at every turn.' During the same meeting another member said, 'One member seems to believe they are above the expectations, but then decides to play victim when called on it.' Though the researcher could not definitively say who the members spoke of, the researcher was interested to note the differing opinions of members during the same meeting. Perceptions seemed to vary widely throughout the beginning of the study. As one member indicated, 'Members seem to still be blaming one another for the issues the group faces. There seems to be little awareness in our group.' The victimization was clear in some of the responses of the participants with little interest in taking accountability. Team members more regularly indicated frustration toward fellow team members instead of reflecting on personal practices and actions.

Frustration. Across the first four weeks of responses, the word "frustration" and iterations appeared 22 times. The team members expressed frustration in different ways. A member said, 'The feelings of anger I experience during some of our meetings are not normal for a professional setting.' Another indicated their frustration by simply saying, 'I am fed up. Some of the members of the team are annoying and act like children. This is leading to bitterness and resentment.' The implementation of the intervention was mentioned as 'helpful' by three respondents during week three, but the comments remained negative throughout this portion of the study. One member simply responded to

the open-ended question on the survey with the same comment for three weeks in a row,

'I am very frustrated. We need an overhaul.'

Weeks 5-9

Figure 4

Weeks 5-9

Note. Weekly responses to the open-ended survey were compiled to form this word cloud. The researcher used Free Word Cloud Generator (2023).

Team. The researcher noted the uptick in the use of the word, "Team," during

weeks five through nine. In the previous portion of the intervention, team members were

speaking in terms of the individual. Responses started to become more inclusive during

this period. For example, a comment from one team member:

> This group of people is starting to feel more cohesive. For the first time I might
>
> actually call us a 'team.' For a long time, we've entered these meetings tight-
>
> lipped and silent. Today, we were greeting one another and laughing together. We
>
> felt like a group of people versus individuals forced to occupy the same space
>
> today. I've always struggled to feel like I was contributing in this group, but I do

feel like the intervention is opening avenues for some of us to talk and add input

that might not have been there before.

Another team member said, 'Good for us. We're really functioning like a team for the

first time!' The researchers' favorite line was simple and concise, 'Go team!'

The intervention is working. Multiple team members mentioned the intervention

every week throughout the middle of the study period. The intervention was implemented

with precision and care, and team members were asked to have ownership of the process

by taking roles in the intervention like leader, timekeeper, interrupter, and re-setter. A

member said:

Today we had to make sure that the team came back on track during an

interruption from an excited member. The person who drew us off task was

simply pumped to tell us their idea, and we were able to go back to the discussion

at hand without hurting feelings or ignoring the input. The conversation was

steered in the right direction by the leader and the idea is now going to be

implemented by the team. Everyone seemed to walk away happy! In the past

when we've seen some big interruptions it has caused some strife within the

group. Today we overcame and were able to redirect and accomplish a lot!

Another member detailed how the intervention had been used to help the team reset by

the re-setter that week:

We got more off task today than we have in a while, but we still managed to make

the meeting productive. The re-setter allowed us a moment to breathe and think

through what we were processing, and then gently asked us to address what we

had originally been talking about. I'm not sure we've ever moved past something

like that so smoothly before? It seems that just remembering the intervention

exists allows us to kind of own our own silliness and then remember why we're

there in the first place.

Excited. One of the themes the researcher was most excited about was how many

members were *excited* about the team's progress. The responses during the middle of the

intervention made it clear that participants were feeling optimistic about the path the team

was on. A participant said, 'When I think about where we were and how we are currently

functioning, it's like night and day. I can't believe how much better we're doing. I don't

dread coming to these meetings anymore!' Another team member said, 'I'm excited to

see where we go from here. It feels like we're on the right track!'

Weeks 10-14

Figure 5

Weeks 10-14 Word Cloud

Note. Weekly responses to the open-ended survey were compiled to form this word
cloud. The researcher used Free Word Cloud Generator (2023).

Functioning. At the end of the study period, the researcher could see an

observable difference in the responses from the participants. At the beginning of the

intervention period, many team members had indicated a perception that the team was

dysfunctional. At the end, the perceptions had shifted to the idea that the team was

functioning at higher levels:

> I cannot believe the differences we have seen as a team. The idea that we can now
>
> function through an entire meeting, do what we need to do outside the meeting,
>
> and show up at the next meeting prepared and excited to share is just not
>
> something I thought we'd ever accomplish. We're doing all the things that we've
>
> been told GOOD PLCs do. I am so happy to have a team that helps me.

One member said:

> The difference in our level of functioning from the beginning to end is unreal! We
>
> couldn't even be in the same room as one another at the start, and now we're
>
> seeking out one another's opinions and creating things together that I wasn't sure
>
> the team was even capable of!

> **Valued.** Team members began to comment on the feeling of value toward the end

of the intervention period. This was shown in different ways. One member asserted, 'I

feel like each member is able to find value in the other members now, even if our

contributions aren't always equal.' Another member said, 'There is so much value in the

work we're doing. Our team dynamic has changed so much in such a short time.'

One comment that the researcher appreciated deeply was found on the final form:

> Each of us has always known we held value for the other people on our team, but
>
> I don't know if we've always felt comfortable asserting that value. For a long
>
> time, a few members were the only voices in the room. I think we've all learned
>
> to use our voices and our expertise to show that we can contribute and grow
>
> together. This work has been so valuable.

Research Question 4

Research Question 4: How does the researcher perceive the level of functioning with participants during the intervention process?

The researcher was interested in finding differences in her own perceptions of team levels of functioning across the course of the research study. The researcher created and maintained a research journal throughout the course of the intervention period (August 2022 to December 2022). The researcher began each weekly journal entry by indicating whether the researcher believed the intervention had been utilized that week. Across the 14 weeks of the study, the researcher indicated the intervention was used 100% of the time. The researcher looked for themes about the intervention and the part the intervention played in her perceptions about the level of functioning throughout the course of the study. The researcher focused on the beginning, middle, and end of the study in order to find and discern themes. The researcher decided to use a word cloud generator to identify common themes in journal entries throughout the period of the intervention. The researcher created three Word Clouds (Figures 6, 7, and 8) to represent the beginning, middle, and end themes. Each Figure is included in the report.

Mistrust. The researcher compiled the first four weeks of her research journal entries to find common themes. When the researcher perused the Word Cloud created from her journal entries one of the major words was "mistrust." The idea of mistrust was explored in Chapter Two and will be further explored in Chapter Five, but to the researcher it meant simply that there was a lack of trust in the PLC at the beginning of the intervention period.

Weeks 1-4

Figure 6

Weeks 1-4 Researcher Word Cloud

Note. Weekly entries from the researcher's journal were compiled to form this word cloud. The researcher used Free Word Cloud Generator (2023).

The researcher wrote in her first entry:

It is clear that the team has some deep-seated issues coming into the meetings.

This team dynamic has changed four times in the past six years, but the overall

atmosphere of the team has remained the same. People work in pockets and

smaller divisions to do what they want to do. There is a common curriculum, but

it is only followed by two or three members at a time. Whenever the team

attempts to discuss the curriculum people either will not speak about what they're

doing in class, or the members get defensive about their actions and choices.

The researcher wrote this portion of the entry after a particularly difficult meeting

in which there was open hostility amongst members. The researcher reported one

member had cried and raised their voice saying, 'I feel that everyone is against me. You

guys don't trust me and you are not my friends.' to which another member had replied,

'This team isn't about being friends! But we have to believe that all members are doing the right thing, and I doubt all of us believe that right now!'

The researcher noted throughout the beginning of the intervention period that many members refused to engage. The researcher perceived that this lack of engagement was due to a lack of confidence in fellow members. The researcher believed that members did not feel safe in the team and were therefore unwilling to devote time and energy into moving the team forward.

Conflict. While the team had historically struggled to reach consensus on various topics, it was not typical of the team members to openly show hostility or break into outright conflict. The researcher noted in Chapter One that part of the interest in the creation of this action research study was the growing hostility within the group. Before the intervention there had been no attempt made to corral the growing tension. The researcher noted:

Each member seems to be actively holding back from saying what is on their mind. There have been many times when the researcher herself has had to remind herself to remain calm as certain members continue to place blame on others. With the creation of the intervention, the group has attempted to quell the growing conflict by setting norms that should be obvious to most professionals. Things like not raising our voices, not interrupting one another, leaving our personal feelings out of the meetings, etc., seem like logical ideas for a team of adults, and yet not all team members seem capable of keeping themselves in check.

Upon reflection of that entry the researcher admitted that this was far from an unbiased representation of the meetings.

The first few meetings in the intervention period were rife with conflict, both in the open and behind the scenes. The researcher wrote, 'Member three came to the researcher after the meeting while crying and indicated that they were not sure how much longer they could handle member two in the group.' The researcher had noted this conflict in a journal entry week two saying, 'Member two raised their voice at various members throughout the meeting today. Anytime there is an attempt to hold member two accountable, though, it results in more crying and blame being thrown elsewhere.'

The next week's entry showed conflict beyond that between members two and three. Member five was very vocal in meeting three and raised their voice at member four saying, 'We all agreed to try the activity and you simply did not do it. Why do you think that is okay?' While other members had voiced their frustrations that the norms and expectations were not upheld by member four, this open accusation once again seemed to, in the researcher's perception, heighten emotions and cause tension amongst the group.

Dysfunction. The researcher used the term 'dysfunction' 14 times in the first four weeks of the intervention. Dysfunction referred to the inability of the group to function as a team. The researcher wrote, 'this dysfunction was evident in the conflict, lack of accountability, and overall lack of trust the individual members of the team are exhibiting.' The researcher observed several examples of dysfunction throughout the beginning of the intervention period:

Member Four entered the room asking a question about the day's lesson plans. Member Three cut off Member Four off and said, "That's not what we're working on!" Researcher interjected and said, "We need to get everyone caught up for

today so that everyone can pay attention to the meeting when we start." Member

Three left the room.

When Member Three returned, they sat down and spoke loudly to other group

members. They said (paraphrasing) that they felt left out, dismissed, and talked

over, and unwelcomed in the group. At this point other group members had

joined, and everyone was sitting quietly listening to the members express their

feelings.

Another example of the dysfunction that stood out to the researcher:

Member Four and Member and Member Three continue to struggle with

cohesion. The researcher has noticed that those two members often talk over one

another. This creates a spiral effect for the rest of the group where other members

can get pulled off into tangents and multiple conversations occur at once. The

researcher addressed this issue, and the group was able to get back on track when

the norms were revisited.

At one point during a reminder of the norms for the intervention, a member who had been

part of making the norms became highly defensive:

Researcher said, "We will not yell at one another or use profanity toward one

another. That is unacceptable." Member three responded by stating that they did

not believe they had yelled and that they believe they deserve to have people to be

on their side. Another member expressed that there are no "sides" in these

meetings. Member three stood up and left the meeting and did not return.

Weeks 5-9

Figure 7

Weeks 5-9 Researcher Word Cloud

Note. Weekly entries from the researcher's journal were compiled to form this word cloud. The researcher used Free Word Cloud Generator (2023).

  Cooperation. In the middle of the intervention period the researcher noted the emergence of cooperation within the group. In the meeting five entry the researcher wrote at the beginning, 'This is the first time I've seen members cooperate with one another in such a successful way.' The previous meeting revolved around creating a summative performance event for students. When the team agreed upon the standards that needed to be assessed each member agreed to take on one portion of the creation and bring back ideas for the following meeting. At the next meeting each member came prepared, and the team was able to create the summative within one meeting period. The researcher noted, 'Last time we created a summative it took us at least three meetings and two members didn't even use it.'

The researcher also wrote in this time:

  Team members are taking on roles of the intervention as asked. We have a leader

  for each meeting, a timekeeper, an interrupter, and a re-setter. The interrupter is

the role that intercepts tangents and other interruptions that have occurred. This role is not a comfortable one, but the team has agreed that it is necessary. This person steps in when they notice someone has broken one of the norms of the intervention. We've added the idea to the intervention because it is so vital for our operations. The re-setter has also become invaluable. This person gets us back on track based on the conversations that were taking place before we lost track of what we were saying or doing. With group members taking these roles seriously, the researcher perceives these meetings to be much more productive than previous meetings.

Improvement. Throughout the course of the intervention the researcher recorded her perceived level of functioning during each meeting. In the first meeting the researcher wrote, 'The researcher perceived the team to be functioning at a disintegrating level.' In meeting two the researcher wrote, 'This meeting might have been worse than the last, in my opinion. The researcher perceived the team to be functioning at a disintegrating level.' Meeting three showed the first signs of improvement in the researcher's perception. The researcher stated, 'This meeting was a step up from last week's meeting. I would place the team at a low level of functioning because there was no open hostility this time.'

During the middle of the intervention the team had begun cooperating and utilizing the intervention in a way that was showing improvement. The researcher scored the team at traditional levels throughout the course of the middle of the intervention. Writing about one meeting, the researcher said, 'The team was able to accomplish items from the agenda and no members were openly hostile, which was an improvement.'

   The improvement continued into the next weeks. The researcher observed

changes for the better between members who had previously been in open hostility:

   Member three asked member four to help them with setting up a question in

   Google Classroom and Member Four did so. These two members have not

   interacted in meetings since meeting one when the group had open hostility

   toward one another. While the researcher cannot be sure of interactions outside of

   the meetings, there was no indication that the group members had made up

   outside of the PLC time. This was a major improvement in team behavior.

Another important observation the researcher made during this time:

   Each team member present at the meeting exhibited more respectful behavior than

   previous meetings. The researcher observed that members' body language was

   more open. Member two sat with their arms on the desk and leaning forward

   toward the team. Member Five, who is often on their computer during meetings

   and not engaging had their computer closed and was actively involved in the

   conversation, asking questions, and clarifying tasks. Member Four, who had

   previously raised their voice during two meetings was mostly quiet, but this is still

   an improvement on previous meetings.

Even calendar dates, which had historically been a trigger for the group's discord, were

discussed in an open and conducive manner:

   The team talked about the calendar. One member was unsure if they'd be able to

   give a formative on the date the team had originally agreed upon. The team

   discussed the date and decided to move the formative back two days to help the

   members that didn't feel confident yet. While this may seem innocuous, this is

significant for a few reasons: 1) The team has previously struggled to even agree

on a specific date to give formatives 2) This member that asked for the date to be

moved has simply moved their own date, and 3) The team was open to making

decisions that worked for the good of the group versus responding that a change

didn't work for them (which has happened in the past).

Weeks 10-14

Figure 8

Weeks 10-14 Researcher Word Cloud

Note. Weekly entries from the researcher's journal were compiled to form this word
cloud. The researcher used Free Word Cloud Generator (2023).

   Cohesion. As the cooperation within the group continued to improve the

researcher perceived a higher amount of cohesion within the group. Historically, the team

had not operated as a traditional team. Instead, members had been individuals who

seemed to feel obligation to meet together during a prescribed time set by district

administration. These meetings were openly hostile and were noted by members to be, 'a

waste of time.' Toward the end of the intervention period, it was clear to the researcher

that the PLC had indeed become a team. In reference to a meeting which revolved around

curricular design, the researcher wrote:

> The researcher believes this was easily the best meeting this team has ever had.
>
> Members were working toward a shared goal with purpose. There was little to no
>
> deviation from the agenda and tangents were directly related to the topics at hand.
>
> Standard breakdown, historically an event that triggered arguments and strife and
>
> has had to be dealt with major sensitivity, was resolved quickly and with
>
> consensus. The cohesion of the group is astounding based on experience.

At one point, two of the team members admitted they were uncomfortable with the

writing process and were not able to comprehend what the other members were asking

from their students. This type of conversation had never happened before. The researcher

wrote:

> The team discussed what each part of the standard meant to each member. The
>
> group agreed that the expectation would ask for explicit text evidence from this
>
> point forward, versus the details from the test some members had previously
>
> asked for from their students. The team also agreed upon a format for the writing
>
> responses.

From there, the team was able to agree upon some norm scoring, which the researcher

noted, is a higher-level functioning of any PLC. The researcher wrote:

> The group reviewed previous student work to create exemplars for each level of
>
> response in the rubric (i.e. - working on it, approaching, proficient, advanced).
>
> The researcher felt that the conversation was much smoother than previous
>
> meetings. There was less interruption and group members did not need reminders

about cutting one another off. Sitting in the circle kept group members engaged

and everyone seemed less likely to be distracted by their own interests or work

during this meeting.

Summary

The qualitative study showed observable differences between the pretest and

posttest responses on the Team Trust Survey administered in August 2022 and December

2022. The study data also showed observable differences in participants' rankings of the

levels of functioning throughout the course of the intervention period. Members of the

PLC were able to report out perceptions of the PLC throughout the course of the

intervention and the researcher was able to find themes suggesting improvements were

significant in the overall functioning of the team. The researcher was also able to note

improvements in the team's functioning through reports in the research journal. Although

the sample size was small and therefore incapable of producing generalizations, the

researcher felt confidence in the intervention and the improvement provided to the team.

The next chapter provides discussion of the results and suggestions for teams looking to

improve practices and levels of functioning.

Chapter Five: Discussion, Reflection, and Recommendations

Overview

To evaluate the role an intervention played in the levels of functioning of a group the researcher investigated the perceptions of the members of a PLC in a Midwest suburban school. Through the evaluation of the perceptions of team members the researcher aimed to find possible changes in the team's functioning throughout the course of the intervention period. The researcher hoped to find areas of improvement within the team's functioning during weekly PLC meetings assigned by the district of study. To evaluate the researcher's perceptions in levels of functioning, the researcher kept a weekly research journal in which she took observation notes and reflection notes for each meeting. The researcher referred to team members through a numbered system to maintain anonymity. The researcher ended weekly journal entries by ranking the team with a level of functioning. The PLC team members' perceptions of levels of functioning were measured through a weekly open-ended survey. Team members were asked to evaluate the use of the intervention, rank the level of functioning perceived, and leave comments. The researcher analyzed rankings of the levels of functioning from pretest in August 2022 to rankings of levels of functioning on the posttest in December 2022. The Team Trust Survey was used. Team members were asked to answer six questions ranking statements in a Likert-scaled process. By completing qualitative analysis of the journal and open-ended surveys, the researcher hoped to accomplish the following: examine the areas in which the PLC excelled or struggled, examine the fidelity of the utilization of the intervention, and determine if the utilization of the intervention helped pinpoint areas of weakness within the team's perceptions of team functioning. By completing comparison

analysis of the pretest and posttest data, the researcher hoped to see a difference in the

perceptions of the levels of functioning of the PLC members throughout the course of the

study period.

Discussion

   Research Question 1. Analysis of the pretest data on the Team Trust Survey in

comparison to the posttest data on the Team Trust Survey showed an observable

difference in responses. The pretest and posttest data were broken down by question in

Chapter Four. The researcher interpreted the results of the pretest and posttest surveys by

studying the distribution of the statement rankings. The researcher noted that participants

responded with 3s, 4s, or 5s, to questions directly related to the "Disintegrating" and

"Low" levels of functioning. On the pretest, two out of eight team members ranked the

team at an overall "Disintegrating" level of functioning. Four members ranked the team

at an overall "Low" level of functioning. By the posttest the ranking had shifted to

"Traditional" (2), "High" (4), and Ideal (2) levels of functioning. Analysis of posttest data

on the Team Trust Survey in comparison to the pretest data on the Team Trust Survey

showed an observable difference in responses.

   Question 1 reflected on team conflict. The pretest data showed 75% of the

participants' responses indicated that team members felt blame and mistrust for other

members of the group. These results were not surprising to the researcher, as the history

of the team had indicated open distrust and conflicts within the group. The team had

openly argued in the previous meeting, with two members leaving the meeting in tears.

Oestreich (2011) described disintegrating teams as teams where "people seem to be in an

open war with one another, justifying their hostile and insulting feedback to one another"

(p. 12). The "Disintegrating" level described the team at the time the intervention was developed. The posttest responses for Question 1 showed there was a general expectation for people to maintain cordial relationships with each other. Personal conflicts or performance issues were addressed directly. Responses indicated individuals effectively resolved differences or concerns about others' performance through one-on-one, respectful discussions. Team members provided each other with honest and constructive feedback on both performance and interpersonal matters and engaged in open discussions during team meetings. As discussed in Chapter Two, open and frank discussions to resolve conflict were a key factor in higher level team functioning (Meyer et al., 2020). Posttest question 1, 37.5% of participants scored the team at a "Traditional" level of functioning. 37.5% scored the team at a "High" level of functioning.12.5% of participants ranked the team at an "Ideal" level of functioning. These rankings showed members believed that the team was competent in resolving interpersonal conflicts without the need for external intervention. As discussed in Chapter Two, higher functioning teams were aware of the diverse points of view members could hold and celebrated each voice as professionals and trusting colleagues (Cramm & Nieboer, 2011).

Question 2 addressed the interpersonal relationships between group members. Pretest, 75% of members' responses fell in the "Low" and "Disintegrating" level of functioning. The responses indicated that there was open mistrust in the group due to alliances and cliques. As cited in Chapter Two, blame and mistrust were evident across the cliques and individuals in the teams struggling through inability or unwillingness to communicate and compromise (Rajagopal, 2021). The group's capacity for productive discussions, even about everyday topics not sensitive or demanding in terms of

interpersonal dynamics, were undermined by pervasive feelings of unresolved mistrust

and blame. Posttest analysis showed that the team perceptions shifted into "Traditional"

or higher levels of functioning. Posttest, 62.5% of participants ranked the "Ideal" level

statement highest in responses. Summers and Gray (2016) stated, "The development of

PLCs depends upon a focus on learning, effective use of resources and facilities, and

positive interaction between all participants" (p. 62). Positive interactions required

confidence in the groups' reception to new ideas. During group meetings, individuals

openly discussed personal development struggles and behaviors (such as lack of

confidence or insensitivity) in a vulnerable manner. This allowed individual members to

receive support and guidance when needed. Members seemed more willing to ask for

sensitive feedback in a team setting, such as feedback on mistakes made regarding

standards or relationship with other team members. Members routinely maintained

positive professional demeanors and remained task oriented.

Question 3 focused on the decision-making process in the perceptions of the team.

Pretest, 37.5% of participant responses ranked the team at the lowest level of functioning,

"Disintegrating." Decision-making was bogged down by self-serving arguments,

resulting in unsupported or delayed decisions that were undermined by members outside

of group meetings. Team members believed that the group's leadership model was

insufficient. Muhammad and Cruz (2019) asserted, "Leadership is a serious business; an

ineffective leader can make a lasting negative impression while an effective leader can

positively affect lives for generations" (p. 5). The team lacked clear leadership at the time

of the pretest, as PLCs were functioning without established or expected roles. Eight

group members attempted to make decisions for one another, and the team indicated the

practice was not successful. Posttest analysis showed 37.5% of participants ranked the

team at a "Traditional" level of functioning and 62.5% ranked the team at a "High" level

of functioning for Question 2. The data indicated the group operated in a self-led manner

where members took collective responsibility for performance. No active supervision was

required of the team to see student-oriented results. The group worked through conflicts

and collective decision-making processes as the team grew and developed (Caskey &

Carpenter, 2020).

Question 4 determined the level of cooperation and compromise group members

perceived within the team. Pretest, 75% of participants reported perceptions of "Low"

levels of functioning for the team before the intervention was implemented. Discussions

led to impasses too difficult to overcome which led nowhere. The lack of distinct roles

and responsibilities for team members led to issues that could not be resolved. Without

proper commitment to cooperation and collaboration, teams were unable to foster

cultures conducive to growth (Khumalo, 2018). Suspicion of hidden agendas and

assertations of dominance clouded the PLCs ability to reach agreements or terms. Posttest

data showed 37.5% of participants rated the team at a "Traditional" level of functioning.

Additionally, 37.% rated the team at a "High" level of functioning. As discussed in

Chapter Two, members harnessed conflicts in more positive manners. Team members

challenge assigned roles and thought patterns with a perception of security not previously

noted. Resources were combined to find innovative solutions to problems. Members

perceived progress toward jointly created goals (Meyer et al., 2020)

Question 5 centered on the management of team conflict. The statements sought

to measure the participants' views on how the group handled disputes amongst members.

Pretest, 50% of members ranked the team at the "Disintegrating" level of functioning. The responses highlighted the tendency the group held to exhibit overt distrust and to assign blame within the group. The group displayed incompatible beliefs and did not feel secure with other members. Participants indicated hesitation to raise concerns in meetings due to potential consequences and discord. Cromwell (2002) described similar functioning as toxic, stating, "Teacher relations were often conflictual; the staff didn't believe in the ability . . . to succeed, and a generally negative attitude prevailed" (p. 18). The open, unresolved mistrust and blame team members presented toward one another led to unresolved friction. Analysis of posttest data showed levels of functioning ranked by 37.5% of the team as "Traditional." Additionally, 37.5% ranked the team as "High" functioning while 25% ranked the team at an "Ideal" level of functioning. Team members were encouraged to discuss challenging or delicate topics during team meetings, and all members contributed constructively to address the issues. These discussions included conflicts, dilemmas, or significant mistakes that occurred within the team. Once a member initiated a discussion about a sensitive topic, others joined in to assist with the resolution (Oestreich, 2011).

Question 6, the final question of the survey, assessed team members' perceived sense of belonging within the PLC community. The statements appraised emotions such as gratitude, admiration, and acknowledgment each member perceived from other team members. In the context of a team environment, this question specifically referred to the degree of gratitude members felt when they contributed their individual knowledge, experience, and/or expertise. As discussed in Chapter Two, perceptions hinged upon agreements over goals, improvements, and fostered feelings of belonging. Shared visions

allowed group members to feel trust with one another. When group members felt misused or ignored, the members were less likely to report a positive perception of a group (Wallace, 2021). Pretest, 100% of team members reported perceptions lower than a "Low" level of functioning. Members indicated the perception of a greater emphasis on each other's shortcomings and what members lacked or failed to do, rather than positive qualities. Individuals felt a general lack of acknowledgment and felt overlooked, mistreated, or threatened in an environment fixated on publicly penalizing individuals for errors. Posttest data showed a significant difference in perceptions. Posttest, 37.5% of the team ranked the PLC as "Traditional" while 37.5% ranked the PLC as "High" functioning. Importantly, 25% ranked the PLC at an "Ideal" level of functioning. As discussed in Chapter Two by Brewer and Flavell (2021), "The terms 'respect,' 'support,' 'considerate,' 'engaged,' 'interested,' and 'friendly' were used to describe interactions in [high functioning] groups" (p. 541). A highly functioning group operated as a community where individuals felt valued, appreciated, and supported in utilizing unique skills and strengths. Members were welcomed, appreciated, and acknowledged. Members consistently demonstrated respect and recognition towards one another.

The data collected in the pretest showed that 100% of team members never perceived the team to be above a traditional level of functioning. Every question indicated at least 75% of the team perceived the PLC to be functioning at a "Low" or "Disintegrating" level of functioning in all areas of the survey. The responses were compiled to show each team member's overall perception of the level of functioning. Pretest, 62.5% of respondents ranked the team as "Low," 37.5% of respondents ranked the team as "Disintegrating," No overall scores showed any ranking above "Low."

Analysis of posttest data on the Team Trust Survey in comparison to the pretest data on the Team Trust Survey showed an observable difference in responses. By the posttest the ranking had shifted to "Traditional" (2), "High" (4), and Ideal (2) levels of functioning. The researcher's assessment of the data showed an observable difference between pretest and posttest responses. The researcher noted, 'The posttest data...has exceeded the researcher's expectations. The team is indicating satisfaction and trust at much higher levels than the researcher predicted at the beginning of the research period.'

Research Question 2. Examination of the data collected throughout the 14-week intervention period showed an observable difference in perceptions of the level of functioning. At the beginning (weeks 1-4) of the intervention period, 43.75% of team members ranked the team at a "Disintegrating" level of functioning while 37.5% ranked the team at a "Low" level of functioning. Week four was the first week that saw a ranking higher than "Low" with 75% of the team rating the level of functioning at "Traditional." This only accounted for 18.75% of the overall rankings for the beginning of the study period.

The middle of the study period (weeks 5-9) showed a shift in perceptions. During this period 60% of the responses ranked the team at a "Traditional" level of functioning. In the same period, 27.5% of participants rated the team at a "High" level of functioning.

The final period of the study (weeks 10-14) showed 25% of the team rated perceptions of the level of functioning at a "Traditional" level. The researcher noted that no team member rated the team at "Traditional" past week 12. During the final weeks of the study period 72.5% of participants rated the team as "High" functioning. In week 12,

team members began designating the level of functioning as "Ideal." During the final three weeks of the intervention period, 12.5% of team members rated the team as "Ideal." Overall, 43.75% of participants rated the team as "Disintegrating" at the beginning of the study, while most participants (72.5%) rated the team at a "High" level of functioning at the end of the intervention period.

  Research Question 3. The researcher broke the 14-week study period into three distinct periods in order to discuss themes. The researcher examined team members' individual perceptions of the levels of functioning once the intervention was created and implemented. An open-ended survey was delivered to team members each week. The researcher then analyzed responses for themes. Responses were compared to the existing literature on the topic to synthesize results.

  The beginning of the study period (weeks 1-4) showed negative themes. The researcher examined responses for connections to the current literature. A response from a team member on the weekly open-ended survey stated, 'This meeting felt more like a personal attack on one member than it did an actual meeting. It isn't fair to gang up on someone.' As the researcher referenced in Chapter Two, team functioning was largely dependent upon the interactions and relationships team members shared (Reeves et al., 2016). Another member indicated, 'Members seem to still be blaming one another for the issues the group faces. There seems to be little awareness in our group.' A large part of dysfunction, according to Oestreich (2011) is when, "People feel stressed, frustrated, and sometimes victimized" (p. 11).

  The middle portion of the study (weeks 5-9) showed more positive perceptions. Team members used words such as "support" and "friendly" to describe the group

interactions. Traditional functioning groups were inclined to use these words in description of team dynamics. Higher presence of engagement and interest were directly related to growth in teams (Brewer & Flavell, 2021). One member said, 'This group of people is starting to feel more cohesive.' The review of literature showed a link between feelings of cohesion and job satisfaction. Reported job satisfaction was linked to enhanced performance for the teachers in teams perceived to be functioning at traditional or higher levels in typical tasks and interactions (Caskey & Carpenter, 2020).

The final period (weeks 10-14) showed an observable difference between the responses in the beginning of the study in relation to those at the end of the study. One participant wrote, 'We're doing all the things that we've been told GOOD PLCs do. I am so happy to have a team that helps me.' Research showed that when educators helped one another, it led to improvement in communication, performance, and collegiality (Zalaznick, 2020). A member stated, 'Each of us has always known we held value for the other people on our team, but I don't know if we've always felt comfortable asserting that value.' To see successful collaboration . . . it was necessary for individuals to feel that they could rely on one other and that everyone's contributions were valued (Hugander, 2022).

Research Question 4. The researcher broke the 14-week study period into three distinct periods in order to discuss themes. The researcher examined personal perceptions of the levels of functioning once the intervention was created and implemented. The researcher created and maintained a research journal throughout the 14-week course of the study. The researcher analyzed entries for themes. Entries were compared to the existing literature on the topic to synthesize results.

Common themes in the beginning period of the study (weeks 1-4) included mistrust, conflict, and dysfunction. The researcher wrote, 'people either will not speak about what they're doing in class, or the members get defensive about their actions and choices.' Members left meetings or refused to meet due to personal feelings or avoidance. Compromise was nonexistent and blame and mistrust were evident across the cliques and individuals in the team. Ideas were not shared due to mistrust or dislike. In disintegrating teams mistrust came with the inability or unwillingness to communicate (Rajagopal, 2021). The researcher noted in the journal entries that team members communicated through raised voices and that smaller pockets of members tended to pair up and exclude others. Brewer and Flavell (2021) wrote, "here were lower levels, and variety of, interactions" (p. 542) in teams struggling with dysfunction.

In the middle of the study period (weeks 5-9) cooperation improved. In this period of the study, team members had indicated perceptions of traditional levels of functioning through the open-ended survey. The researcher noted, 'This is the first time I've seen members cooperate with one another in such a successful way.' Oestreich (2011) explained, "Teams at the Traditional Practice trust level focus on the tasks and getting them done through clear expectations, cooperation, and good communications" (p. 10). The researcher wrote there was 'a major improvement in team behavior.' during this time. Williams (2021) defined PLCs as "a collaborative group of educators that works together to improve students' learning by committing to continuous improvement" (para. 2). The researcher observed multiple instances of improvements in team functioning throughout this period of the study.

In the final period of study (weeks 10-14) cohesion emerged as the prominent theme. The researcher noted that the intervention led to stronger communication and consensus amongst the group members. "The High Functioning trust level empowers a group through greater openness, feedback, and the intentional choice to use the team as a vehicle for personal and professional growth" (Oestreich, 2011, p. 9). The researcher noted multiple instances of members sharing opinions and beliefs in meetings throughout this period. The researcher wrote, 'Two of the team members admitted they were uncomfortable with the writing process and were not able to comprehend what the other members were asking from their students.' The entry indicated that team members had previously refrained from expressing lack of comfort. A level of vulnerability was shown for the first time during this period. Group members allowed unguarded access to one another. The researcher noted that the team consistently met high levels of functioning. Within this level of functioning all team members were empowered to share ideas, insights, challenges, concerns, and vulnerabilities. Whatever was shared with the team was met with sensitivity, acceptance, support, and constructive feedback (Brewer & Flavell, 2021)

Reflection on Study

The intervention and study period began in August of 2022. The team participated in a pretest to show the level of functioning perceptions of each member. The team consisted of eight members. The group was made up of male and female participants with a diverse range of experience. The results were analyzed in a whole-team discussion facilitated by the researcher where the team agreed to create and implement and intervention for the study period of one semester. The intervention was created based on

research of Thinking Collaborative's Adaptive Schools framework. The researcher

combined ideas with Matthos' *Are We a Group or a Team?* To design the plan for the

PLC. The researcher noticed a lack of cohesion and cooperation within the group, mixed

with perceptions of mistrust from and between members. Meetings, historically, were

unstructured and led to frustration with no clear purpose or solutions.

The intervention addressed the communication deficits the team dealt with. Each

member was given a role in each meeting and agendas were set and agreed upon by all

members. A timekeeper was appointed to ensure tasks were given proper attention, but

the role was also utilized to dissuade over-talking or spiraling during discussions. The

intervention also required team members to agree to give more or less time for each task,

which allowed members to reflect on necessity and tangents. Avoidance of tangents and

interruptions allowed the team to talk about priority items versus small details that had

previously led to breakdowns in communication.

The timeline for the intervention was relatively easy to stick to. Weekly meetings

were a requirement for the team, and reflections were simple to incorporate. The team

members' attendance was harder to work around. Perfect attendance was rare for

meetings as members were pulled for other tasks or were absent on the day of the

meeting. Members were unable to answer open-ended survey questions if individuals

were not present for the meetings, so there were often fewer than eight responses. When

members were present at meetings the researcher perceived that members were receptive

and sometimes eager to participate in the surveys. Members were more likely to respond

with detailed and lengthier comments toward the end of the study, which surprised the

researcher. The researcher assumed this was due to the overall perceptions of the team

members' levels of trust and functioning. Members seemed more willing to discuss positive outcomes than negative.

One of the drawbacks the researcher noticed was that anonymity was difficult to maintain due to the detailed descriptions members used in their responses. Members were very diligent about not naming anyone in open-ended survey responses, but as a member of the group, the researcher observed the meetings and knew the participants' actions. The researcher was impressed by the willingness shown by the group. Members utilized personal time to complete the surveys and gave detailed feedback, which had a valuable impact on the overall results of the study.

Tying the Team Trust Survey to a researcher created, open-ended survey and intervention was a difficult task. The researcher had to ensure, to the best of her ability, that the outcomes for each were aligned to the researcher's desired outcome. The researcher was able to discuss the Team Trust Survey with the creator, which assisted in the alignment. The researcher had originally planned to assess levels of trust. However, trust was difficult to define and harder to assess within a group of people. Trust was strongly connected to different emotions in different people (Islam et al., 2021), and perceptions were almost impossible to decipher for eight individuals. The researcher had to scrap the idea of trust and focus instead on levels of functioning already in existence in the Team Trust Survey. This made the connection to the open-ended survey and intervention simpler and clearer for the researcher and participants.

Overall, the researcher was inspired by the team's willingness to engage and explore options with the intervention. The researcher believed members took roles seriously in meetings. The "Timekeeper" role allowed the team to refrain from tangential

discussions that had previously led to strife or outright conflict amongst the team

members. The "Re-setter" role was also vital to the functioning of the team. This person

was able to draw discussions back to agenda items without the fear the interruption led to

hurt feelings or dissension. The clear expectations were a crucial reminder of the

priorities of the team. Members' interactions thrived with the structure afforded through

timed agenda items and tasks.

Recommendations for Future Research

The researcher had recommendations for groups interested in replicating parts or

all the study. The study was originally meant to have a larger data sample. The researcher

had planned to implement the intervention with all PLC groups within the Midwest,

suburban school. While the results did show an observable difference in the perceptions

of the level of functioning, the researcher could not make any generalizations based on

the results of an eight-person team.

The researcher planned to participate as an observer versus an active member of

the team, but ultimately became an active participant. If another researcher was interested

in replicating the study, the researcher recommended a participant role versus an observer

role, even in a small team. The researcher believed an observer role would help maintain

participants' anonymity, but the intervention fidelity would be difficult to assess in an

observer role. Due to the nature of the participant role the researcher held; the researcher

created an intervention based very specifically on team need. This would be difficult to

ensure as an observer with little to no understanding of the team dynamics.

The researcher recommended set roles in the intervention throughout the period of

study. The study group rotated roles to promote equity amongst the group. It was clear to

the researcher that certain members were better suited to certain roles than others. While

the equity piece was important, there was value in practice and mastery, as well as choice

in the roles members took on. Some members were more comfortable with passive roles,

and some liked to actively engage with the role assigned or chosen. The researcher

recommended giving participants a voice in the choice of roles.

The researcher recommended training over Thinking Collaborative's Adaptive

Schools strategies and Mattos' *Are We a Group or a Team?* For anyone interested in

replicating the study. Thinking Collaborative offered multiple strategies and plans for

adult teams. Mattos' resources were directly tied to evaluations for team functioning.

This resource worked as a guiding point for the researcher in the creation and

implementation of the intervention in the study.

Finally, the researcher recommended support to teacher teams. PLCs were not

natural to all teachers. Collaboration was not something that came easily to many adults,

especially those used to the isolation of the individual classroom. The expectation of

collaboration and collegiality was a nice concept but was not necessarily realistic for

people holding no training or expertise in the area. The researcher benefitted from the

training and experiences she had in her professional life, but not all study participants

were on even footing in that arena. Some of the more experienced teachers began

teaching careers when PLCs did not exist or were not common. The ideas of

collaboration and consensus were big concepts and should be implemented with care.

Conclusion

As the 21st century continued it remained important to acknowledge how much

the world of education had changed. Rising expectations meant that teachers needed

more support than ever before to meet the needs of students and reach the levels of performance expected. Research showed PLCs and collaborative work produced higher yields for student learning and teacher satisfaction. However, without proper support and training, teacher groups could not be expected to function as high-level teams. Adults entered the field of education with different perspectives, perceptions, and philosophies. A willingness toward open discussions of these elements in a safe and supportive environment was vital. Opportunities to assess team members' perceptions over the levels of functioning and trust that exist within the group allowed for reflective practices. It was crucial to acknowledge and accept struggles and to commit to practices built to improve performance and satisfaction. Improvement in team functioning led to higher satisfaction and performance. Group and team dynamics, self-efficacy, climate and culture, and trust were all necessary components of highly functioning PLC teams (DuFour et al., 2020). Commitment to a high level of functioning within a team helped individuals rise to the challenges of the 21st century education field.

References

Abbasi, F., Ghahremani, L., Nazari, M., Fararouei, M., & Khoramaki, Z. (2021).

Lifestyle in female teachers: Educational intervention based on self-efficacy

theory in the south of Fars province, Iran. *BioMed Research International*, 1–8.

https://doi.org/10.1155/2021/6177034

Adaptive Schools Resources. (n.d.). *Strategies and moves*. @ThinkCollab.

https://www.thinkingcollaborative.com/as-resources

Allgood, W. (2021). *The importance of positive school climate and classroom culture:

Crisis prevention institute (cpi).* Crisis Prevention Institute.

https://www.crisisprevention.com/Blog/The-Importance-of-Positive-School-

Climate

Alliance for Education Solutions. (n.d.). *School climate and culture.*

https://aesimpact.org/school-climate-and-culture/

Alonso-Tapia, J., & Ruiz-Díaz, M. (2022). School climate and teachers' motivational

variables: Effects on teacher satisfaction and classroom motivational climate

perceived by middle school students. A cross-cultural study. *Psicología

Educativa*, *28*(2), 151–163.

https://doi.org/10.5093/psed2022a4

Alphonse-Crean, I. (2022). Ways of seeing: To crack the culture code in schools,

examine its structures and systems. *Independent School*, *81*(3), 41–44.

Bader, G., & Lilijenstrand, A. (2003). The value of building trust in the workforce. *The

Bader Group*, 2-4.

Bai, Y., Wang, J., Huo, Y., & Huo, J. (2022) The desire for self-control and academic achievement: the mediating roles of self-efficacy and learning engagement of sixth-grade Chinese students. *Current Psychology.* https://doi.org/10.1007/s12144-022-03275-9

Battersby, S. L., & Verdi, B. (2014). The culture of professional learning communities and connections to improve teacher efficacy and support student learning. *Arts Education Policy Review*, *116*(1), 22–29. https://doi.org/10.1080/10632913.2015.970096

Blazieko, C., & Squires, V. (2018). Using network learning communities to create authentic collaboration opportunities for teachers. *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM))*, *46*(2), 45–70.

Bouchrika, I. (2022). *Teacher collaboration guide: Strategies, statistics & benefits*. Research.com. https://research.com/education/teacher-collaborationguide#:~:text=Teacher%20 collaboration%20involves%20teachers%20working,classes%20face%2Dto%2Dfa ce.

Bouchrika, I. (2022). *The Andragogy Approach: Knowles' adult learning theory principles*. Research.com. https://research.com/education/the-andragogy-approach

Brewer, M. L., & Flavell, H. (2021). High and low functioning team-based pre-licensure interprofessional learning: An observational evaluation. *Journal of*

Interprofessional Care, *35*(4), 538–545.

https://doi.org/10.1080/13561820.2020.1778652

Breysse Cox, M. (2019). *The trust decoder: An examination of an individual's developmental readiness to trust in the workplace* (Publication No. 27725735) [Doctoral dissertation, Antioch University]. Proquest Dissertations and Theses Global.

Buffum, A. G., Mattos, M., & Malone, J. (2018). *Taking action: A handbook for RTI at work*. Solution Tree Press.

California Department of Education. (2021). Culture & climate. Culture & Climate – Quality Schooling Framework. *California Department of Education*. https://www.cde.ca.gov/qs/cc/

Carpenter, D. (2018). Intellectual and physical shared workspace: Professional learning communities and the collaborative culture. *International Journal of Educational Management*, *32*(1).

Carroll, K., Patrick, S. K., & Goldring, E. (2021). School factors that promote teacher collaboration: Results from the Tennessee instructional partnership initiative. *American Journal of Education*, *127*(4), 501–530. https://doi.org/10.1086/715002

Carsel, T. S. (2020). *In context we trust: A social-cognitive theory of trust* (Publication No. 28333994). [Doctoral dissertation, University of Illinois at Chicago]. ProQuest Dissertations and Theses Global.

Caruso, S. (2021). *Malcolm Knowles* https://hrdevelopmentinfo.com/malcolm-knowles-and-the-six-assumptions-underlying-andragogy/

Caskey, M., & Carpenter, J. (2020). *Building teacher collaboration school-wide*.

　　　Building Teacher Collaboration School-Wide.

　　　https://www.amle.org/building-teacher-collaboration-school-wide/

Çelik, O. T., & Atik, S. (2020). Preparing teachers to change: The effect of psychological

　　　empowerment on being ready for individual change. *Cukurova University Faculty*

　　　of Education Journal, *49*(1), 73–97. https://doi.org/10.14812/cufej.635770

Cramm, J. M., & Nieboer, A. P. (2011). Professionals' views on interprofessional stroke

　　　team functioning. *International Journal of Integrated Care (IJIC)*, *11*, 1–8.

Cromwell, S. (2002). Is your school culture toxic or positive? *Education World, 6*(20, 1.

Darling-Hammond, L. (1996). The quiet revolution: Rethinking teacher development.

　　　Educational Leadership, *53*(6), 4-10.

Davidson, A. B., McLeigh, J. D., & Katz, C. (2020). Perceived collective efficacy and

　　　parenting competence: The roles of quality of life and hope. *Family Process*,

　　　59(1), 273–287. https://doi.org/10.1111/famp.12405

Dehdary, N. (2017). A look into a professional learning community. *Journal of*

　　　Language Teaching and Study, *8*(4), 645-654.

　　　http://dx.doi.org/10.17507/jltr.0804.02

De Neve, D., Devos, G., & Tuytens, M. (2015). The importance of job resources and self-

　　　efficacy for beginning teachers' professional learning in differentiated instruction.

　　　Teaching and Teacher Education, *47*, 30–41. doi:10.1016/j.tate.2014.12.003

Dickhäuser, O., Janke, S., Daumiller, M., & Dresel, M. (2020). Motivational school

　　　climate and teachers' achievement goal orientations: A hierarchical approach.

British Journal of Educational Psychology, *91*(1), 391–408.

https://doi.org/10.1111/bjep.12370

Donohoo, J., Hattie, J., & Eells, R. (2018). The power of collective efficacy. *Educational Leadership*, *75*(6), 40–44.

DuFour, R., & Eaker, R. E. (1998). *Professional Learning Communities at work: Best practices for enhancing student achievement*. Hawker Brownlow Education.

DuFour, R., DuFour, R. B., Eaker, R. E., Many, T. W., & Mattos, M. (2016). *Learning by doing: A handbook for professional learning communities at work*. Solution Tree Press.

Evans, J. E. (2022). *Democracy in Educational Leadership: Linking Andragogy to Professional Learning* (Publication No. 29213898). [Doctoral dissertation, California State University]. ProQuest Dissertations and Theses Global.

Fan, P., Lima, S., & Rocha, Á. (2018). Research on the collective efficacy of social networks with multi factor analysis. *Journal of Intelligent & Fuzzy Systems*, *35*(3), 2827–2836. https://doi.org/10.3233/JIFS-169636

Farmer, P. (2019). Repairing the process: How to fix a Dysfunctional plc. *Solution Tree Blog*. https://www.solutiontree.com/blog/dysfunctional-plcs/

Fathi, J., Nourzadeh, S., & Arash, S. A. (2021). Teacher individual self-efficacy and collective efficacy as predictors of teacher work engagement: The case of Iranian English teachers. *Journal of Language Horizons, 5*(2), 167-186. https://doi.org/10.22051/lghor.2021.33184.1366

Fay, R. M. (2019). *How teacher collaboration time provides opportunity for social capital development in teacher professional learning communities* (Publication

No. 27542521). [Doctoral dissertation, University of Pennsylvania]. ProQuest

Dissertation and Theses Global.

Fink, J. L. W. (2018). The ABCs of PLCs. *Scholastic Teacher*, *128*(2), 43–45.

Firat, M., Sakar, A. N., & Yurdakul K., I. (2016). Web interface design principles for

adults' self-directed learning. *Turkish Online Journal Of Distance

Education*, *17*(4), 31-45.

Flamino, J., Szymanski, B. K., Bahulkar, A., Chan, K., & Lizardo, O. (2021). Creation,

evolution, and dissolution of Social Groups. *Scientific Reports*, *11*(1).

https://doi.org/10.1038/s41598-021-96805-7

Flood, L. D., & Angelle, P. S. (2017). Organizational influences of collective efficacy

and trust on teacher leadership. *International Studies in Educational

Administration (Commonwealth Council for Educational Administration &

Management (CCEAM))*, *45*(3), 85–99.

France, P. E. (2021). Collective efficacy or toxic positivity? *Educational Leadership*,

79(3), 32–37.

Fraenkel, J.R & Wallen, N.E (2009). How to design and evaluate research in education

(7th ed). McGraw-Hill.

Groysberg, B., Lee, J., Price, J., & Cheng, J. (2021). *The leader's Guide to Corporate

Culture*. Harvard Business Review. https://hbr.org/2018/01/the-leaders-guide-to-

corporate-culture

Hallam, P. R., Smith, H. R., Hite, J. M., Hite, S. J., & Wilcox, B. R. (2015). Trust and

collaboration in PLC teams. *NASSP Bulletin*, *99*(3), 193–216.

https://doi.org/10.1177/0192636515602330

Hattie, J. (2023). *Visible learning, the sequel a synthesis of over 2,100 meta-analyses relating to achievement*. Routledge.

Hirsh, S. (2020). *Focus professional learning communities on curriculum (opinion)*. Education Week.

https://www.edweek.org/leadership/opinion-focus-professional-learning-communities-on-curriculum/2018/01

Honaker, J., Senn, D., & Fetherolf, S. (2022). *How to build PLCs that empower teachers and raise student achievement*. Learning Sciences International.

https://www.learningsciences.com/blog/professional-learning-communities-plcs-teachers-ownership-student-achievement/

Hord, S. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Southwest Educational Development Lab.

https://files.eric.ed.gov/fulltext/ED410659.pdf.

Huffman, J. B. (2001, April). *The role of shared values and vision in creating professional learning communities* [Paper presentation]. Annual Meeting of the American Educational Research Association, Seattle.

Hugander, P. (2022). *When trust takes away from effective collaboration*. Harvard Business Review.

https://hbr.org/2022/05/when-trust-takes-away-from-effective-collaboration

Huijboom F., Van Meeuwen P., Rusman E., & Vermeulen M. (2019). How to enhance teachers' professional learning by stimulating the development of professional learning communities: Operationalising a comprehensive plc concept for

assessing its development in everyday educational practice. *Professional Development in Education.* DOI: 10.1080/19415257.2019.1634630

Islam, T., Chaudhary, A., Jamil, S., & Ali, H. F. (2021). Unleashing the mechanism between affect-based trust and employee creativity: A knowledge sharing perspective. *Global Knowledge, Memory, and Communication*, *71*(6/7), 509–528. https://doi.org/10.1108/gkmc-04-2021-0071

Jessie, L. (2022). *Creating buy-in for PLCs.* All Things PLC. https://www.allthingsplc.info/blog/view/161/creating-buy-in-for-plcs

Johns Hopkins Institute for Education Policy & Johns Hopkins Center for Research and Reform in Education. (2017). *Evidence based education.* John Hopkins. https://education.jhu.edu/crre/evidence-based-education/

Jones, C., Penaluna, K., & Penaluna, A. (2019). The promise of andragogy, heutagogy and academagogy to enterprise and entrepreneurship education pedagogy. *Education & Training, 61*(9), 1170-1186. https://doi.org/10.1108/ET-10-2018-0211

Kamarudin, N. A., Binti Ahmad, A., Bin Abdul Halim, M. A., Bin Abdullah, R., & Kamalrulzaman, N. I. (2022). The correlation between school climate dimensions and teacher well-being in Malaysian Indigenous Schools. *Journal of Nusantara Studies (JONUS)*, *7*(1), 292–315. https://doi.org/10.24200/jonus.vol7iss1pp292-315

Kane, E., Hoff, N., Cathcart, A., Heifner, A., Palmon, S., & Peterson, R. (2018). *Strategy briefs*. Student Engagement Project. https://k12engagement.unl.edu/strategy-briefs

Karimova, L. S., Biktagirova, G. F., & Ismagilova, L. R. (2020). Developing self-efficacy of future ELL teachers. *ARPHA Proceedings*, 919–933. https://doi.org/10.3897/ap.2.e0919

Kaufman, S. (2019). *Organizational trust: strategies to foster cognitive- and affect-based trust among virtual teams* (Publication No. 13856474). [Doctoral dissertation, The Chicago School of Professional Psychology]. ProQuest Dissertations and Theses Global.

Khumalo, S. S. (2018). Promoting teacher commitment through the culture of teaching through strategic leadership practices. *Gender & Behaviour*, *16*(3), 12167– 12177.

Knowles, M. (2019). Informal adult education, self-direction, and andragogy, http://infed.org/mobi/malcolm-knowles-informal-adult-education-self-direction-and-andragogy.

Kolleck, N., Schuster, J., Hartmann, U., & Gräsel, C. (2021). Teachers' professional collaboration and trust relationships: An inferential social network analysis of teacher teams. *Research in Education*, *111*(1), 89–107. https://doi.org/10.1177/00345237211031585

Kramer, S. (2019). First things: Why PLCs? *All Things PLC*, 4–5.

Lisbona, A., Palaci, F., Salanova, M., & Frese, M. (2018). The effects of work engagement and self-efficacy on personal initiative and performance. *Psicothema*, *30*(1), 89–104.

Machynska, N., & Boiko, H. (2020). Andragogy - the science of adult education: Theoretical aspects. *Journal of Innovation in Psychology, Education & Didactics*, *24*(1), 25–34.

Mangia, S., & Williams, D. (2020). *How leaders can build trust in teams: Lead read today*. Fisher College of Business. https://fisher.osu.edu/blogs/leadreadtoday/blog/how-leaders-can-build-trust-in-teams

Mattos, M., DuFour, R., DuFour, R., Eaker, R., & Many, T. W. (2016). *Concise answers to frequently asked questions about professional learning communities at work*. Solution Tree Press.

McLaughlin, M. W. & Talbert, J. E. (1993). *Contexts that matter for teaching and learning*. Center for Research on the Context of Secondary School Teaching, Stanford University.

McMillan, J. H. (2012). *Educational research: Fundamentals for the consumer*. Pearson.

Medaille, A., Beisler, M., Tokarz, R., Bucy, R. (2022). The role of self-efficacy in the thesis-writing experiences of undergraduate honors students. *Teaching and Learning Inquiry, 10*, 1-22. https://doi.org/10.20343/teachlearninqu.10.2

Meyer, A., Richter, D., & Hartung-Beck, V. (2020). The relationship between Principal Leadership and teacher collaboration: Investigating the mediating effect of teachers' collective efficacy. *Educational Management Administration & Leadership*, *50*(4), 593–612. https://doi.org/10.1177/1741143220945698

Miller, A. (2020). *Creating effective professional learning communities*. Edutopia.

    https://www.edutopia.org/article/creating-effective-professional-learning-

    communities

Mind Tools. (n.d.). *Improving group dynamics.* Mind Tools.

    https://www.mindtools.com/ad3z8yv/improving-group-dynamics

Muhammad, A. (2012). *Transforming school culture: How to overcome staff division*.

    Solution Tree Press.

Muhammad, A., & Cruz, L. (2019). *Time for change: Four essential skills for

    transformational school and district leaders (educational leadership development

    for change management)* Solution Tree.

Muhammad, A., & Hollie, S. (2011). *The will to lead, the skill to teach: Transforming

    schools at every level (Create a responsive learning environment) (Essentials for

    principals).*

Multicultural collaboration. (n.d.) *Chapter 27. Working together for racial justice and

    inclusion.* Community Tool Box.

https://ctb.ku.edu/en/table-of-contents/culture/cultural-competence/multicultural-

    collaboration/main

Myers, C. B. (1996). *The professional educator: A new introduction to teaching and

    schools.* American Educational Research Association.

Myyry , L., Karaharju-Suvanto, T., Virtala, A.-M. K., R Raekallio, M., Salminen, O.,

    Vesalainen, M., & Nevgi, A. (2021). How self-efficacy beliefs are related to

    assessment practices: A study of experienced University Teachers. *Assessment &*

Evaluation in Higher Education, *47*(1), 155–168.

https://doi.org/10.1080/02602938.2021.1887812

Naidoo, A. (2012). Leading curriculum renew in a faculty of education: A story from

within. *Perspectives in Education*, 30(2), 71-80.

National Association of Elementary School Principals. (2021). *Leading learning

communities: A principal's guide to early learning and early grades (pre-k-3rd

grade)*. National Association of Elementary School Principals.

Nguyen, D., & Nguyen, D. (2020). Teacher collaboration for change: "sharing,

improving, and spreading." *Professional Development in Education,* 46(4), 638.

https://doi.org/10.1080/19415257.2020.1787206

Nordick, S., Putney, L. G., & Jones, S. H. (2019). The principal's role in developing

collective teacher efficacy: A cross-case study of facilitative leadership. *Journal

of Ethnographic & Qualitative Research*, *13*(4), 248–260.

Oestreich, D. K. (2011). *Team Trust Survey*. Oestreich Associates.

https://teamtrustsurvey.com/

Ončevska Ager, E., & Wyatt, M. (2019). Supporting a pre-service English language

teacher's self-determined development. *Teaching & Teacher Education*, *78*, 106–

116. https://doi.org/10.1016/j.tate.2018.11.013

Peng, L. (2021). Principals' transformational school leadership and collective teacher

efficacy in Chinese urban upper secondary schools. *International Studies in

Educational Administration (Commonwealth Council for Educational

Administration & Management (CCEAM))*, *49*(2), 50–68.

Petlak, E. (2019). School Culture and the Related Issues. *Ad Alta: Journal of Interdisciplinary Research*, *9*(1), 227–233.

Power, K. (2019). 4 reasons why PLCS fail, and how to prevent them. *Solution Tree Blog*.

https://www.solutiontree.com/blog/why-plcs-fail/

Požega, Željko ., Crnković, B., & Kovačić Mađarić, K. (2020). Influence of training programme design on employee education. *Review of Contemporary Business, Entrepreneurship and Economic Issues*, *33*(2).

Preston, B. C., & Donohoo, J. (2021). It's not collective efficacy if it's easy. *Educational Leadership*, *79*(3), 26–31.

Promethean. (n.d.). *The State of Technology in Education Report*. Promethean.

https://resourced.prometheanworld.com/gb/technology-education-industry-report/#schools-strategic-goals

Putney, L. G., & Jones, S. H. (2019). Introduction to the special issue on fostering collective and self-efficacy: Examining new directions on efficacy in education. *Journal of Ethnographic & Qualitative Research*, *13*(4), 231–233.

Rajagopal, K. (2021, March 1). *6 common reasons why teams underperform*. The Predictive Index.

https://www.predictiveindex.com/blog/reasons-teams-underperform/

Randall, R., & Marangell, J. (2021). Changing what we might have done on our own: Improving classroom culture and learning through teacher collaboration. *Clearing House*, *94*(1), 38–46. https://doi.org/10.1080/00098655.2020.1828240

Reeves, D., & Eaker, R. (2019). PLCs at work or PLC lite? *All Things PLC*, 7-10.

Reeves, S., Fletcher, S., Barr, H., Birch, I., Boet, S., Davies, N., McFadyen, A., Rivera,

    J., & Kitto, S. (2016). A Beme systematic review of the effects of

    interprofessional education: Beme Guide No. 39. *Medical Teacher*, 38(7), 656–

    668. https://doi.org/10.3109/0142159X. 2016.1173663

Riggins, C., & Knowles, D. (2020). Caught in the trap of plc lite: Essential steps needed

    for implementation of a true professional learning community. *Education*, *141*(1),

    46–54.

Ritchie, K. (2018). Social structures and the ontology of social groups. *Philosophy and

    Phenomenological Research*, *100*(2), 402–424.

    https://doi.org/10.1111/phpr.12555

Rosander, M., Forslund Frykedal, K., & Hammar Chiriac, E. (2020). Attitudes towards

    being assessed in group work: The effects of self-efficacy and collective efficacy

    moderated by a short educational intervention. *Psychology in the Schools*, *57*(9),

    1404–1416. https://doi.org/10.1002/pits.22423

Rosen, M. A., Diaz Granados, D., Dietz, A. S., Benishek, L. E., Thompson, D.,

    Pronovost, P. J., & Weaver, S. J. (2018). Teamwork in healthcare: Key

    discoveries enabling safer, high-quality care. *The American psychologist*, *73*(4),

    433–450. https://doi.org/10.1037/amp0000298

Rosenholtz, S. (1989). *Teacher's workplace: The social organization of schools.*

    Longman.

Salanova, M., Rodríguez-Sánchez, A.M., & Nielsen, K. (2022). The impact of group

    efficacy beliefs and transformational leadership on followers' self-efficacy: A

multilevel-longitudinal study. *Current Psychology*, *41,* 2024–2033.

https://doi.org/10.1007/s12144-020-00722-3

Salkind, N. (2010). *Encyclopedia of Research Design Survey - 208.88.132.60*.

Encyclopedia of Research Design.

http://208.88.132.60/sage3g/sage-uk.war/chamblissintro/study/materials/

handbook_encyclo/ref_02survey.pdf

Samuel, C. (2022). *Teacher collaboration: A qualitative descriptive study on the*

perception of the transfer of knowledge [Doctoral Dissertation, Trident

University]. ProQuest Dissertations and Theses Global.

Samuel, M. (2021). *The difference between high- and low-functioning teams*. Forbes.

https://www.forbes.com/sites/forbescoachescouncil/2021/05/05/the-difference-

between-highand-low-functioning-teams/?sh=1cf9cfd735df

Schneider, M., & Preckel, F. (2017). Variables associated with achievement in higher

education: A systematic review of meta-analyses. *Psychological Bulletin, 143*(6),

565–600. https://doi.org/10.1037/bul0000098

ScholarChip. (2020, May 27). *Why school climate and culture should be at the top of*

your list. ScholarChip.

https://www.scholarchip.com/school-climate-and-culture/

Schwabsky, N., Erdogan, U., & Tschannen-Moran, M. (2020). Predicting school

innovation: The role of collective efficacy and academic press mediated by

faculty trust. [Role of collective efficacy and academic press] *Journal of*

Educational Administration, 58(2), 246-262.

https://doi.org/10.1108/JEA-02-2019-0029

Sehrawat, J. (2014). Teacher autonomy: the key to teaching success. *Bharttyam International Journal of Education & Research, 4*(1), 1–8.

Senge, P. (2006). *The fifth discipline: The art and practice of the learning organization.* Crown Publishing Group.

Serviss, J. (2022). *4 benefits of an active professional learning community*. ISTE. https://www.iste.org/explore/professional-development/4-benefits-action-professional-learning-community

Sifaki-Pistolla, D., Melidoniotis, E., Dey, N., & Chatzea, V.E. (2020). How trust affects performance of interprofessional health-care teams. *Journal of Interprofessional Care*, *34*(2), 218–224. https://doi.org/10.1080/13561820.2019.1631763

Singh, V., & Dubey, A. (2021). Development and validation of perceived school climate scale (pscs). *Indian Journal of Health & Wellbeing*, *12*(4), 547–554.

Skaalvik, E. M., & Skaalvik, S. (2017). Motivated for teaching? Associations with school goal structure, teacher self-efficacy, job satisfaction and emotional exhaustion. *Teaching and Teacher Education*, *67*, 152–160. https://doi.org/10.1016/j.tate.2017.06.006

Sneyers, E., Jacobs, K., & Struyf, E. (2016). Impact of an in-service training in neurocognitive insights on teacher stress, teacher professionalism and teacher student relationships. *European Journal of Teacher Education*, *39*(2), 253–266. https://doi.org/10.1080/02619768.2015.1121985

Solution Tree. (n.d.). *About solution Tree.* Solution Tree. https://www.solutiontree.com/about/overview

Sonju, B., Kramer, S. V., Mattos, M. A., & Buffum, A. (2019). *Best practices at tier 2: Supplemental interventions for additional student support, secondary*. Solution Tree Press.

Steiner, D. (2017). *Curriculum research: What we know and where we need to go.* Standardswork.org.
https://standardswork.org/wp-content/uploads/2017/03/sw-curriculum-research-report-fnl.pdf

Strahan, C., Gibbs, S., & Reid, A. (2019). The psychological environment and teachers' collective-efficacy beliefs. *Educational Psychology in Practice*, *35*(2), 147–164.
https://doi.org/10.1080/02667363.2018.1547685

Summers, R., & Gray, J. (2016). Enabling school structures, trust, and collective efficacy in private international schools. *International Journal of Education Policy and Leadership*, *11*(3), 61–75. https://doi.org/10.22230/ijepl.2016v11n3a651

Tallman, T. O. (2020). How teachers experience collaboration. *Journal of Education*, *201*(3), 210–224. https://doi.org/10.1177/0022057420908063

Talsma, K., Schuz, B., & Norris, K. (2019). Miscalibration of self-efficacy and academic performance: Self-efficacy ≠ self-fulfilling prophecy. *Learning and Individual Differences, 69,* 182-195. https://doi.org/10.1016/j.lindif.2018.11.002

Teasley, M. L. (2016). Organizational culture and schools: A call for leadership and collaboration. *Children & Schools, 39*(1), 3-6. doi:10.1093/cs/cdw048

Thagard, P. (2018). *What is trust?*. Psychology Today.
https://www.psychologytoday.com/us/blog/hot-thought/201810/what-is-

trust#:~:text=Trust%20is%20a%20set%20of,security%20that%20a%20partner%2

0cares.

Tracey, M. W., Baaki, J., Budhrani, K., & Shah, S. (2022). "Behind the curtain":

Exploring how instructional design teams' function to complete design and

development. *International Journal of Technology & Design Education*, *32*(5),

2853–2871. https://doi.org/10.1007/s10798-021-09715-0

Uziel, L., & Baumeister, R. F. (2017). The self-control irony: Desire for self-control

limits exertion of self-control in demanding settings. *Personality and Social*

Psychology Bulletin, 43(5), 693–705. https://doi.org/10.1177/0146167217695555

Valls, V., González-Romá, V., & Tomás, I. (2016). Linking educational diversity and

team performance: Team communication quality and innovation team climate

matter. *Journal of Occupational and Organizational Psychology*, *89*(4), 751–771.

https://doi.org/10.1111/joop.12152

Van Emmerik, I. H., & Brenninkmeijer, V. (2009). Deep-level similarity and group

social capital: Associations with team functioning. *Small Group Research*, 40(6),

650–669. https://doi.org/10.1177/1046496409346550

Van Iseghem, L. (2018). *An ethnographic study on the relationship between andragogy*

and perceived ability of hybrid and virtual employees to live corporate

values (Publication No. 13426696). [Doctoral dissertation, Lindenwood

University]. ProQuest Dissertations and Theses Global.

Venables, D. R. (2017). *Facilitating teacher teams and authentic PLCs: The human side*

of leading people, protocols, and practices. ASCD.

Voelkel, R. H., & Chrispeels, J. H. (2017). Understanding the link between professional

    learning communities and teacher collective efficacy. *School Effectiveness &*

    School Improvement, *28*(4), 505–526.

    https://doi.org/10.1080/09243453.2017.1299015

Wallace, H. (2021). Planning in professional learning teams: Building trust, common

    language, and deeper understanding of pedagogy. *Australian Educational*

    Researcher (Springer Science & Business Media B.V.), *48*(2), 377–395.

    https://doi.org/10.1007/s13384-020-00394-9

Wendel, M. (2022). *Teacher Perceptions of the Supports and Barriers of Teacher*

    Collaboration (Publication No. 29067722). [Doctoral dissertation, Middle

    Tennessee State University]. ProQuest Dissertations and Theses Global.

Wert, J. J. (2020). *Leadership in extremis: The impact of leader behavior, trust in leader,*

    and trust in team on the wellbeing of special operations team members

    (Publication No. 28774287). [Doctoral dissertation, University of Charleston-

    Beckley]. ProQuest Dissertations and Theses Global.

Williams, A. (2021, May 24). *What are professional learning communities (PLCs)?*

    Center for Student Achievement Solutions.

    https://www.studentachievementsolutions.com/what-are-professional-learning-

    communities-plcs/

Wolgast, A., & Fischer, N. (2017). You are not alone: Colleague support and goal-

    oriented cooperation as resources to reduce teachers' stress. *Social Psychology of*

    Education, 20(1), 97-114. doi:10.1007/s11218-017-9366-1

Xyrichis, A., Reeves, S., & Zwarenstein, M. (2018). Examining the nature of

    interprofessional practice: An initial framework validation and creation of the

    Inter Professional Activity Classification Tool (InterPACT). *Journal of*

    Interprofessional Care.

Yang, H. (2020). The effects of professional development experience on teacher self-

    efficacy: Analysis of an international dataset using Bayesian multilevel models.

    Professional Development in Education, *46*(5), 797–811.

    https://doi.org/10.1080/19415257.2019.1643393

Zalaznick, M. (2020). Power of PLCs. *District Administration*, *56*(2), 24–26.

Zimmerman, K. (2016). *Do millennials prefer working from home more than baby*

    boomers and gen X? Forbes, 1-2.

    https://www.forbes.com/sites/ kaytie zimmerman/2016/10/13/do-millennials-

    prefer-working-from-home-morethan-baby-boomers-and-gen-x/#11cdb3642070

Appendix A

Research Study Consent Form

Group Dynamics, Levels of Functioning, and the PLC Process in a Midwest Middle School: A Case Study

Before reading this consent form, please know:

- Your decision to participate is your choice
- You will have time to think about the study
- You will be able to withdraw from this study at any time
- You are free to ask questions about the study at any time

After reading this consent form, we hope that you will know:

- Why we are conducting this study
- What you will be required to do
- What are the possible risks and benefits of the study
- What alternatives are available if the study involves treatment or therapy
- What to do if you have questions or concerns during the study

Basic information about this study:

- We are interested in learning about the impact of group dynamics, trust, and personality types on the PLC process
- You will be asked to answer survey questions anonymously, take part in three interviews at different times throughout the process, and participate in the implementation of an intervention.
- Risks of participation include the researcher reviewing data that could potentially identify you as a participant.

Research Study Consent Form

Group Dynamics, Trust, and the PLC Process: A Case Study

You are asked to participate in a research study being conducted by Nancy Fuchs, under the supervision of Dr. Lynda Leavitt at Lindenwood University. Being in a research study is voluntary, and you are free to stop at any time. Before you choose to participate, you are free to discuss this research study with family, friends, or a physician. Do not feel like you must join this study until all of your questions or concerns are answered. If you decide to participate, you will be asked to sign this form.

Why is this research being conducted?
This study is being conducted to determine if the implementation of an intervention can impact the relationships between adult team members, specifically in terms of trust and performance in the PLC process. We will be asking the 6th grade ELA PLC to answer these questions.

What am I being asked to do?
In August 2022 you will be asked to take a pretest of the Team Trust Survey. This survey asks participants to rate their teams in a scaled process. Once the surveys have been collected and scored the PLC team will discuss the perceptions of trust amongst the teammates. The team will become familiar with the levels of trust and what it means to function at each level. The team will then implement the "Freeing Stuck Groups" intervention from Adaptive Schools Collaborative Thinking strategies. At each weekly PLC meeting the team will begin by revisiting the norms and questions created for the intervention. The researcher will be journaling about the weekly experiences, noting interactions, utilization of the intervention, and researcher's perception of the levels of trust within the team that week. After each meeting the NIH certified research assistant will send an anonymous Google Form asking participants about their perceptions of the meeting and the utilization of the intervention. In December of 2022, at the end of the Fall 2022 semester, each participant will complete a posttest Team Trust Survey.

How long will I be in this study?
This study will take place during the Fall semester of 2022, specifically from August 2022 to December 2022.

Who is supporting this study?
There is no financial support for this study.

What are the risks of this study?

- Privacy and Confidentiality
We will not be collecting any information that will identify you.
The information collected will be two paper-copy surveys with very little handwriting or identifiable marks. This survey will be conducted anonymously. The weekly Google Forms will be sent via the research assistant and will not collect emails or any identifiable information that might compromise participant confidentiality.
We will be collecting data from you using the internet. We take every reasonable effort to maintain security. It is always possible that information during this research study may be captured and used by others not associated with this study.

What are the benefits of this study?

You will receive no direct benefits for completing this survey. We hope what we learn may benefit other people in the future.

What if I do not choose to participate in this research?

It is always your choice to participate in this study. You may withdraw at any time. You may choose not to answer any questions or perform tasks that make you uncomfortable. If you decide to withdraw, you will not receive any penalty or loss of benefits. If you would like to withdraw from a study, please use the contact information found at the end of this form.

What if new information becomes available about the study?

During the course of this study, we may find information that could be important to you and your decision to participate in this research. We will notify you as soon as possible if such information becomes available.

How will you keep my information private?

We will do everything we can to protect your privacy. We do not intend to include information that could identify you in any publication or presentation. Any information we collect will be stored by the researcher in a secure location. The only people who will be able to see your data are: members of the research team, qualified staff of Lindenwood University, representatives of state or federal agencies.

How can I withdraw from this study?

Notify the research team immediately if you would like to withdraw from this research study.

Who can I contact with questions or concerns?

If you have any questions about your rights as a participant in this research or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the Lindenwood University Institutional Review Board Director, Michael Leary, at (636) 949-4730 or mleary@lindenwood.edu. You can contact the researcher, Nancy Fuchs directly at (314) 650-4036 or fuchs729@gmail.com. You may also contact Dr. Lynda Leavitt at lleavitt@lindenwood.edu.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

_____   _____

Participant's
Signature   **Date**

_____

Participant's Printed Name

_____   _____

Signature of Principle Investigator or Designee   **Date**

_____

Investigator or Designee Printed Name

Appendix B

4

Question 1	Question 2
_____A. People are generally expected to get along. If there are personal conflicts or performance problems they are supposed to be handled between the members involved but often still end up with the leader.	_____A. Members take the risk to ask for sensitive feedback in a team setting (e.g., about a mistake they've caused in a project or in a relationship with another team member) and apologize publicly.
_____B. People are able to fully work through their differences or their concerns about others' performance problems in one-on-one meetings without the leader needing to be involved.	_____B. Group members walk out of meetings or simply refuse to meet because conflicts have become destructive and "too personal."
_____C. People give each other direct, personal and constructive performance and interpersonal feedback in team meetings with everyone participating in a frank dialogue about the issues.	_____C. People maintain positive professional decorum and stay task-focused. Personal growth and team relationships are often considered too "touchy-feely" to spend much time on.
_____D. People seem to be in an open war with one another, justifying their hostile and insulting feedback to one another.	_____D. Team members are closed and careful in team meetings. The group is divided into alliances and cliques.
_____E. People are critical and blaming of each other in the background – their feedback to one another leaks into team meetings through put-downs or subtle jabs.	_____E. In group meetings, people openly share their personal development challenges and patterns (e.g., lack of confidence, insensitivity) in a vulnerable way, receiving emotional support and guidance from other team members.

5

Question 3	Question 4
_____A. The group "leads itself" with members taking full, shared responsibility for one another's performance and trust levels. The leader is a strategic guide who mentors but does not need to actively guide the team. _____B. Decisions take too long, go unsupported, or are undermined by members after group meetings. Team members feel the group is inadequately led. _____C. The leader is the central decision-maker, coaching the group to stay on track and efficiently accomplish its goals and projects. _____D. The leader is a good facilitator, helping people through their conflicts and joint decisions as the group learns and develops. _____E. One or more people (including the leader) are viewed as the core problems of the group. Decisions are mired in self-serving arguments.	_____A. In problem-solving sessions, members compete with one another to be right and to protect their interests and resources. People are concerned about others' hidden agendas. _____B. Members coordinate their actions to most effectively reach the goals they have defined together. Although they prefer their separate roles and resources, they regularly look for win/win improvements that will serve the team and its customers. _____C. People are unable to compromise. The group is stuck because *talking* itself has become a lose/lose proposition. _____D. Members use their conflicts constructively to break out of roles and mental sets. They actively pool their resources (time, money, people, ideas) to generate exciting solutions no one could have come up with alone. _____E. Clear roles and accountabilities and a spirit of cooperation solve most team challenges. Members respect the need to do their part and avoid stepping on one another's toes.

Question 5	Question 6
_____A. Anyone on the team can bring up a painful or sensitive issue in a team meeting. All join in constructively to address the problem. This can include major mistakes, ethical issues, betrayals or other serious conflicts within the group. _____B. If difficult issues surface in a meeting, they are usually met with an uncomfortable silence; then are handled quickly or diplomatically to avoid too much awkwardness. _____C. Once someone has had to the courage to place a sensitive issue of any kind on the table, others join in to help resolve it. The leader may be the main person to bring up such issues, but not always. _____D. Open, unresolved mistrust and blaming have overtaken the group's ability to discuss issues productively, even everyday ones that aren't very sensitive or interpersonally demanding. _____E. The team environment is less than safe. People talk about "undiscussables" in the background but hesitate to bring them up in meetings because of possible repercussions or because it won't do any good.	_____A. Members feel ignored, abused, or intimidated; the environment is focused on public punishment for mistakes. _____B. The team is a true community, affirming and appreciating each person and helping that individual make the best use his or her special talents as a unique life path. Members develop deep, lasting connections as friends and colleagues. _____C. Members tend to focus more on what each other does *not* have or does *not* do than on their positive attributes. People may use job titles, pay differences or other perks to compensate for lack of recognition. _____D. People make a special point of welcoming, recognizing and responding to others' abilities and special talents, no matter how long a person has been a member of the group. _____E. Members generally offer respect and recognition to each other, especially those who are considered highly competent by virtue of their expertise and experience.

Appendix C

Copy of Weekly Check-In Six

The intervention being used for the study is called "Desired State" where the group brainstorms and visualizes what they believe a successful team looks like.

Please rank where you believe the team falls IN THIS MEETING (12/1) and then indicated whether or not you believe the intervention was utilized. You may also leave feedback in the last question.

As always, I appreciate you :)

nfuchs@ladueschools.net Switch account

☒ Not shared

* Indicates required question

Please select the perceived level of trust for the team this week. *

○ Ideal: The Ideal trust level is a self-led powerhouse where people are genuinely for one another and everyone's performance potentials are deeply tapped in service to the team's mission.

○ High Functioning: The High Functioning trust level empowers a group through greater openness, feedback, and the intentional choice to use the team as a vehicle for personal and professional growth

○ Traditional Practice: Teams at the Traditional Practice trust level focus on the tasks and getting them done through clear expectations, cooperation, and good communications.

○ Low Functioning: Low Functioning teams experience a level of interpersonal and organizational mistrust that erodes relationships and has a negative impact on work. People feel stressed, frustrated, and sometimes victimized.

○ Disintegrating: The team is literally in a spiral of Disintegration, a painful process where blame, anger, self-doubt and other emotions dominate the team environment.

Please indicate if you believe the intervention was utilized during today's meeting. *

○ Yes

○ No

○ Somewhat

Please note any comments or observations you believe are important to today's levels or trust or intervention usage. Please do not use names.

Your answer

Submit   Clear form

Appendix D

Instrument Validation

Dan Oestreich <dan@teamtrustsurvey.com>
To: FUCHS, NANCY E (Student)   Sun 3/13/2022 3:12 PM

This email originated from outside of Lindenwood University. Do not click links, open attachments, or communicate with the sender unless you know the content is safe and from a reliable source.

Hi Nancy

Feel free to use the Team Trust Survey as part of your dissertation work. The only limit is on whether you are using the Survey to generate commercial income. If not — and it sounds like not — you have my permission to use it without formal registration. If that changes, of course, as slight repayment for use of the intellectual property, please do register.

The Survey has never been validated and I do not warrant it as such. It's been downloaded thousands of times and appears to be most useful as a tool for opening up conversations around issues that might be otherwise hard to articulate or discuss at work.

I do have a favor to ask, which is when you finish your dissertation, I'd be interested in receiving a copy!

If I can be of further help to you in any way as you do your work and use the Survey, please let me know. I'd be happy to speak with you at any time.

All the best, good luck, and thanks for asking!

Dan Oestreich
(425) 922-2859

Vitae

Nancy Fuchs

<u>**Colleges and Universities**</u>

2004-2009: Bachelor of Science in English Education from Missouri State University-Springfield; 2013-2015: Master of Arts in Instructional Technology from Lindenwood University; 2017-2019: Educational Specialist Degree in School Administration from Lindenwood University; 2019-present: pursuing Doctorate of Education in Instructional Leadership (expected graduation date in August of 2023) from Lindenwood University.

<u>**Teaching Employment History**</u>

2017-Present: English Language Arts Instructor at Ladue Middle School in the Ladue School District

]2020-Present: ELA Department Chair for grades 6-8 at Ladue Middle School

2018-2021: Professional Development Committee Chair at Ladue School District

2011-2017: English Language Arts Instructor at Valley Middle School in the Northwest R-1 School District

<u>**Awards**</u>

2022-2023: Excellence in Education Award for the Ladue School District