

An Analysis of the Relationship Between School Culture
and Teachers' Professional Learning

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Learning

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ABSTRACT

The researcher utilized a correlational, non-experimental design to gain a better understanding of the relationship between teachers' ratings of factors of school culture and their motivation to integrate professional development into practice. The survey, a cross-sectional design, studied data from teachers who participated in professional development from Educational Service Centers (ESCs) in northeast Ohio (n=80). The constructs of leadership that impact school culture: vision, trust, power, and collective efficacy were also explored. Using the School Culture Survey (Gruenert & Valentine, 1998) and the Expectancy-Value-Cost for Professional Development scale (EVC-PD) (Osman & Warner, 2020), the researcher considered the relationship between teachers' ratings of their school culture factors (collaborative leadership, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership) and their quantitative measure of motivation from the EVC-PD scale. The results suggest that three out of the six school culture factors show a statistically significant positive association with the EVC-PD scale. Results show that the factors of school culture predict a significant variation in the EVC-PD composite scores. Additional variables were measured to investigate if demographic data and teachers' professional development experience would predict the outcome of teachers' motivation to implement professional development. The results suggest that following up with teachers or leaders after a professional development is associated with teachers' increased motivation to integrate the professional development into their practice. Results of this study support previous research regarding instructional leadership practices, with specific connections to student-centered and collective leadership approaches.

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CHAPTER I

INTRODUCTION

A positive relationship exists between a collaborative school culture and student achievement (Berkowitz et al., 2016; Deal & Peterson, 2013; Gruenert, 2005; Keiser & Schulte, 2009; Leithwood & Jantzi, 2012; Marzano et al., 2005). In their meta-analysis, Marzano et al. (2005) described leaders' behaviors that directly relate to school culture including: (a) promoting cohesion among staff, (b) promoting a sense of well-being, (c) developing an understanding of purpose among staff, and (d) developing a shared vision (Marzano et al., 2005, p. 48). The constructs of principal leadership, vision, trust, power, and self-efficacy, strengthen the pathways between leadership, change in teacher practice, and student achievement. Research outlines leaders, specifically principals' role as instructional leaders in 21st century schools, as the impetus of school improvement (Bellibas & Liu, 2017; Blase & Blase, 1998; Day et al., 2016; Dufour & Marzano, 2011; Hallinger & Heck, 2014; Li et al., 2016).

Leaders impact the organizational culture through their embedded beliefs and assumptions which affect how people in their organizations perceive, think, feel, and behave (Schein, 2010). Leaders serve as the architects of culture; successfully understanding and sustaining healthy cultures lies in their ability to observe and analyze artifacts, espoused values, and deeper assumptions (Schein, 2010). Through authentic interactions and immersion in the culture, leaders gain insight into current practices and promote connection through productive and positive interactions. Starratt (2013) indicated that leaders should seek to understand others' true selves through open dialogue and emotional connections. Understanding culture involves what is stated as well as what

is assumed or understood as truth (Merriman & Tidsell, 2016). Schein (2010) expanded the understanding of organizational culture and depicts its crucial implication as being able to unite or alienate individuals.

Unless administrators and teachers work to change the culture of their school, school improvement efforts will be incapable of making a difference (Barth, 2013a). Leaders who create the conditions to help teachers succeed will see successful outcomes in teachers' professional learning (Dufour & Marzano, 2011). Participating with colleagues during professional development encourages conversation and reflection. Conversation among teachers who engage in professional development is a critical component of a collaborative school culture (Gruenert & Whitaker, 2015). Dialogue and interaction develop connections and understanding (Saphier et al., 2008). Sociocultural learning theory assumes that learning develops in social contexts and evolves through group participation and interaction rather than individual acquisition of knowledge (Gallucci, 2008).

Statement of the Problem

Significant research has focused on leadership behaviors that directly impact school culture conditions and that indirectly promote positive student outcomes (Berkowitz et al., 2016; Deal & Peterson, 2013; Dufour & Marzano, 2011; Gruenert, 2005; Keiser & Schulte, 2009; Leithwood & Jantzi, 2012; Leithwood et al., 2004; Li et al., 2016; Marzano et al., 2005; Robinson, 2007). Researchers have paid less attention to the relationship between how school culture impacts teachers' behaviors and professional learning (Blase & Blase, 1999; Li et al., 2016).

Leaders organize professional development on the premise that it drives positive change by improving teachers' skills and motivating them to put new ideas into their classroom practice (Opfer & Peddler, 2011; Osman & Warner, 2020). However, results of professional development present mixed evidence due to the unique nature of adult learners (Gegenfurtner, 2011; Osman & Warner, 2020). Many school reform endeavors are unsuccessful because the leaders and teachers do not consider a school's culture or grasp its capacity to derail well-intentioned efforts (Kaplan & Owings, 2013). Teachers have widespread access to professional development but lack the support and resources to participate effectively (Garcia & Weiss, 2019). Further examination of how school culture relates to teachers' professional learning could improve school leaders' effectiveness in promoting positive student outcomes in the classroom.

Purpose and Significance of the Study

The purpose of this study was to determine if a relationship exists between school culture and the motivation to integrate professional development into practice for teachers in northeast Ohio. By understanding the relationship between these two variables, leaders may be able to identify factors that relate to teachers' implementation of the content they learn during professional development. Tools to measure teachers' perceptions of school culture and their motivation to implement professional development allow leaders to target improvement efforts. Using valid and reliable tools facilitate leaders' understanding of the different types of support teachers need to continue to develop and grow in their capacity to enhance student outcomes.

The researcher investigated factors that influence teachers' implementation of practices learned during professional development. The researcher sought to determine if

teachers who have a higher rated school culture will demonstrate a greater level of motivation to implement the strategies learned in professional development. Variables such as the duration of the professional development, the number of years teaching, and participation with a colleague, were also considered as they relate to teachers' motivation to integrate the learning from the professional development into their practice. The intent of the study was to consider if a relationship exists between the independent variable, a teachers' rating of their school culture, and the dependent variable, their motivation to integrate professional development into practice.

Research Questions

1. Is there a relationship between teachers' ratings of their school culture factors (collaborative leadership, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership) and their motivation to integrate professional development into practice?
2. What effect do control variables, such as number of years teaching, participation with a colleague, and duration of professional development, have on teachers' motivation to integrate professional development into practice?

Research Design

The researcher employed a quantitative, correlational design using a cross-sectional survey to collect data about the attitudes, opinions, and practices of teachers who participated in professional development. Correlational research provides a snapshot of a single point in time where the researcher does not influence the variables (Field, 2018). A correlational study examines a problem that requires the understanding of the

direction and degree of association between two quantitative sets of scores (Creswell & Guetterman, 2019).

A key step in correlational research involves determining the probability that the observed correlation occurred by chance or if there is a statistically significant relationship between the variables (Trochim & Donnelly, 2008). This study, a cross-sectional survey, considered the relationship between teachers' ratings of their school culture and their rating of motivation to integrate professional development into practice. The survey also documented the number of years of teaching experience, the building level, teachers' participation with colleagues, and the duration of the professional development experience. The dependent variable, teachers' motivation to integrate professional development, is an outcome variable. The independent variable, school culture, serves as a factor that could relate to teachers' motivation to integrate professional development.

Cross-sectional survey designs measure current attitudes and practices of a population at one point in time by studying a sample of that population (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). The target population, a group of individuals with common defining characteristics (Creswell & Guetterman, 2019), were teachers who participated in professional development offered by an Educational Service Center (ESC) in northeastern Ohio. In an effort to obtain results from participants with a range of demographic information, the researcher targeted four ESCs in northeastern Ohio. Identified by their county, ESCs serve a variety of districts: Lorain County ESC (15 districts), Summit County ESC (15 districts), Trumbull County (20 districts), and Cuyahoga County ESC, which recently changed its name to the ESC of Northeast Ohio,

(47 districts). Within these three regions, there are urban, suburban, and rural districts that have students with a variety of socioeconomic and racial backgrounds.

To reach the target population, the researcher relied on the superintendents at the ESC to direct the distribution of the survey to those teachers who participated in professional development. The researcher generated an online, voluntary survey link using the secure, confidential platform, SurveyMonkey. The researcher used two instruments to collect quantitative data. The School Culture Survey (Gruenert & Valentine, 1998) measures six factors of school culture as perceived by teachers. The Expectancy-Value-Cost for Professional Development scale (EVC-PD) measures teachers' motivation to integrate their professional development into practice (Osman & Warner, 2020).

Using IBM SPSS Statistics, version 27, the researcher used regression analysis to understand the relationship between the independent variables and the dependent variable. The intent of the study was to consider if a relationship exists between a teachers' ratings of their school culture factors and their motivation to integrate professional development into practice. However, including other independent variables (years of teaching experience, current teaching level, district typology, duration of professional development, type of professional development, participation with a colleague, and level of follow-up after the professional development) allowed the researcher to understand how these variables coincide to predict teachers' motivation to integrate professional development into their classroom practice.

Operational Definitions

The study frequently uses the definitions listed below. The definitions are well-established in the literature.

Organizational Culture: the interactions, relationships, and connections between members of an organization. The shared values and assumptions of an organization impact the behaviors of its members (Schein, 2010).

Professional Development: any program, training, or activity such as structured inservice trainings, book clubs, or workshops aimed to improve instructional practices of teachers (Osman & Warner, 2020).

Professional Learning: educators' new knowledge, skills and ideas that increase educator effectiveness (Learning Forward, 2011; Ohio Department of Education, 2015a).

School Culture: The shared values, beliefs, patterns of behavior, and relationships in the school (Valentine, 2006). "The way we do things around here" (Deal & Kennedy, 1982, p. 4).

School Leader: a principal, assistant principal, or other individual who is responsible for the daily operations and instructional leadership of a school building (Elementary and Secondary Education Act, 1965).

Sociocultural Learning Theory: individuals learn through interaction and exchanges with others (Vygotsky, 1978).

Student Achievement or Outcomes: "A universally valued educational outcome," that explains how educators view their students' performance including, but not limited to, results from standardized test scores, measurable learning objectives, and grades (Hattie & Anderman, 2020, p. 2).

CHAPTER II

REVIEW OF LITERATURE

School leaders affect teachers' actions in the classroom and leadership plays a significant role in student achievement (Dufour & Marzano, 2011; Li et al., 2016; Leithwood et al., 2004; Marzano et al., 2005; Robinson, 2007). School leaders enhance teachers' implementation of effective practices when they implement practices that promote collaboration and trust (Day et al., 2016; Li et al., 2016; Robinson, 2011; Tschannen-Moran, 2004). Principals influence teachers' capacity to enact professional development in their classrooms (Goldsmith et al., 2014; Hilton et al., 2015; Koonce et al., 2019). Leaders who provide direct support of teachers' professional learning indirectly contribute to enhanced student achievement (Hallinger et al., 2014; Mendels, 2012). A collaborative school culture relates with positive student outcomes (Berkowitz et al., 2016; Deal & Peterson, 2013; Gruenert, 2005; Keiser & Schulte, 2009; Leithwood & Jantzi, 2012).

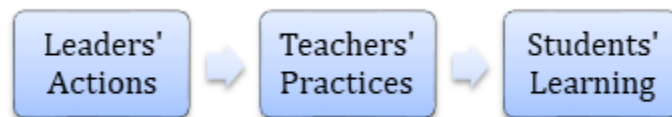
Theoretical Framework

Theories of learning with a collective approach form the foundation of this research; the shared experiences of learning through interactions construct our understanding and influence our beliefs. The researcher links organizational culture, specifically, the interactions, relationships, and connections between school leaders and teachers throughout this research. The shared values and assumptions of an organization impact the behaviors of its members (Schein, 2010). The interaction and collaboration of members of a school influence their individual and collective learning; people assist others in learning and teams evolve through social processes (Higgins et al., 2011; Stein

& Colburn, 2008). Sociocultural learning theory assumes that learning develops in social contexts and evolves through group participation and interaction (Gallucci, 2008). In schools, when leaders foster discourse and value the contributions of teachers, they enhance positive outcomes (Robinson, 2011). The figure below adapted from Dufour and Marzano (2011) depicts the relationship between leaders' behavior and student achievement.

Figure 1

Relationship Between Leaders' Actions and Student Achievement



Note: Adapted from Dufour & Marzano (2011)

Sociocultural Learning Theory

Sociocultural learning theory explains that individuals learn through interaction and exchanges with others (Vygotsky, 1978). Sociocultural learning theory assumes that learning develops in social contexts and evolves through group participation and interaction rather than individual acquisition of knowledge (Gallucci, 2008). People assist others in learning, and teams or communities evolve through social processes (Higgins et al., 2011; Stein & Colburn, 2008). “Social interaction is the origin and engine of learning. The direction in which thought processes develop is not from the individual to the social. Instead it is from the social to the individual,” (Vygotsky, 1986). Dialogue and interaction facilitate construction of meaning (Saphier et al., 2008). Vygotsky (1986) explained learning as a culturally embedded process in which discourse and authentic

interaction play a critical role in the creation and acquisition of shared meaning (Murphy et al., 2009). This foundation emphasizes the importance of establishing relationships and building connections in the classroom, school, and district.

Active approaches to learning allow for opportunities for interaction and increased comprehension and application (Dwyer et al., 2016). Feedback through dialogue or small group interactions improves outcomes as it increases the capacity to explain what one is thinking (Rosenshine, 2012). Micheaux and Parvin (2018) explained that leaders can help to create a culture of learning in their schools for the students and adults:

Just as “children grow into the intellectual life of those around them,” writes Russian psychologist and child development expert Lev Vygotsky (1978, p. 88), we believe that adults also must be “enculturated” (Ritchhart, 2015) into a system that learns. Indeed, if we are to succeed in creating cultures of thinking and learning for young people, we must also create a rich intellectual life for adults in the system. (p. 53)

The sociocultural learning theory grounds this research in the importance of interactions to build a culture of learners.

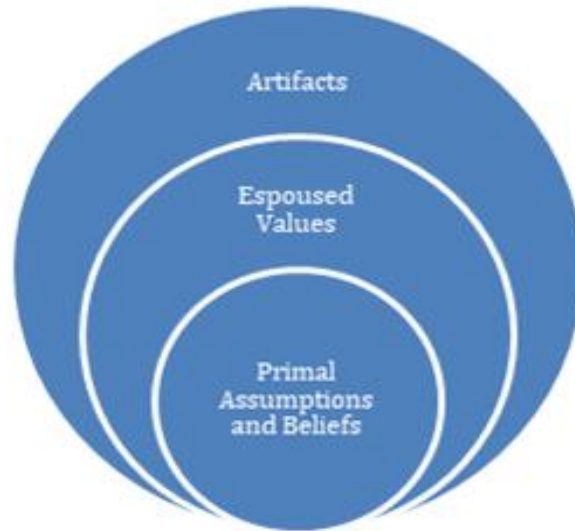
Organizational Culture

Organizational culture, the foundational concept of school culture, focuses on organizational performance, leader effectiveness, and organizational behaviors (Karadag et al., 2014). Pettigrew’s (1979) definition of organizational culture, “the system of collectively accepted meaning operating for a group at any time” has evolved to include specifics such as a shared set of values (Peters & Waterman, 1982) and shared beliefs

(Smircich, 1983). Schein (1985) emphasized the elements that form organizational culture: “(i) artifacts, (ii) values and norms, and (iii) underlying assumptions” (p. 25). These three levels of awareness (see Figure 2) maintain underlying but important factors (National Research Council, 1997). The outer layer includes the visible artifacts that individuals easily view, hear, and feel, such as the mission and vision of an organization, the facilities, and behavior of employees (Matko & Takacs, 2017). The next level, espoused values (Schein 1985), constitutes the values of the individuals working in the organization; their thought processes and attitudes have a deep impact on the culture of an organization because the mindset of the individual influences the culture of the group (Matko & Takacs, 2017). The inner layer, primal assumptions and beliefs, cannot be measured and often stays hidden but affects the culture of the organization (Matko & Takacs, 2017). Aspects of human nature or practices that are not discussed but often occur shape this level of cultural organization (Matko & Takacs, 2017). The model implies that organizational culture has visible and hidden aspects (Matko & Takacs, 2017). Schein (2010) affirmed that while these ingrained assumptions are not easy to see or manage, they affect everything within the organization.

Figure 2

Schein's (2010) Layers of Cultural Awareness



Schein (2010) expands the understanding of organizational culture and depicts its crucial implication as being able to unite or alienate individuals. The way leaders embed their beliefs, values, and assumptions impacts the organizational culture (Schein, 2010).

Leaders teach their organization how to perceive, think, feel, and behave through embedded mechanisms (Schein, 2010). The primary embedding mechanisms include: (1) what a leader pays attention to, measures, and controls; (2) how leaders react to critical incidents and organizational crises; (3) how leaders allocate resources; (4) how leaders deliberately role model, teach, and coach; (5) how leaders allocate rewards and status; and (6) how leaders recruit, select, promote, and excommunicate (Schein, 2010). These mechanisms explain how leaders play a role in establishing school culture and how their behaviors communicate what they value. By considering Schein's (2010) embedded mechanisms and working directly with teachers and providing supportive and shared structures, leaders promote a positive school culture (Carpenter, 2015). Leaders serve as

the architects of culture; successfully understanding and sustaining healthy cultures lies in their ability to observe and analyze artifacts, espoused values, and deeper assumptions (Schein, 2010).

Leaders' Cultural Understanding

Effective leaders often play the role of an anthropological sleuth; they conceptualize the current culture in terms of current practices and beliefs (Deal & Peterson, 2013). The sleuth must look for meaning behind behaviors and interpret the significance of human activity (Deal & Peterson, 2013). Leaders often jump into a visionary role without carefully investigating past and current situations. Without an understanding of history and beliefs, leaders will not be able to generate meaningful, collective improvement efforts. Leaders need to understand the common values, and the stories of the organization bind people together (Deal & Peterson, 2013).

When leaders take on the role of an anthropological sleuth or embed the characteristics of an ethnographic researcher, they gain valuable insight into the culture of an organization or group and develop strong connections with individuals. Ethnographic researchers focus on the natural setting, engage themselves in the society, and often record changes to gain in-depth understanding of the culture (LeCompte & Goetz, 1982; Merriman & Tisdell, 2016). To understand the culture of a group, ethnographic researchers must spend time with them, engage in their activities, participate in their traditions, and study their actions as the group goes about their lives. Merriman and Tisdell (2016) defined culture as a group's knowledge that informs how they view the world and how this knowledge impacts the group's behavior. A culture includes the language, signs, and symbols encompassing what people do, make, use, and

know (Merriman & Tisdell, 2016). Understanding culture involves what is stated as well as what is assumed or understood as truth (Merriman & Tisdell, 2016). School leaders, like ethnographic researchers, need to immerse themselves in the culture to record daily happenings and document their own emotions and reactions to the events and interactions (Barth, 2013a; Deal & Peterson, 2013; Merriman & Tisdell, 2016).

When leaders capitalize on opportunities to engage in authentic interactions, they gain insight into the language, knowledge, and interests of their staff. Through authentic interactions or immersion in the culture, leaders gain insight into current practices as well as understand influential individuals who significantly influence others in the organization. Whether through informal means by being present at events or through more formal situations such as meetings, leaders promote connection through productive and positive interactions. Starratt (2013) indicated that leaders should seek to understand others' true selves through open dialogue and emotional connections. Opening ourselves to the vulnerability of human connection enhances relationships and encourages the authenticity of others. Through affirming presence, school leaders work together with all stakeholders to encourage a positive educational environment for all students. Through reflection and action, they demonstrate responsibility to all stakeholders by being authentic and present in interactions (Starratt, 2013).

Literature Review

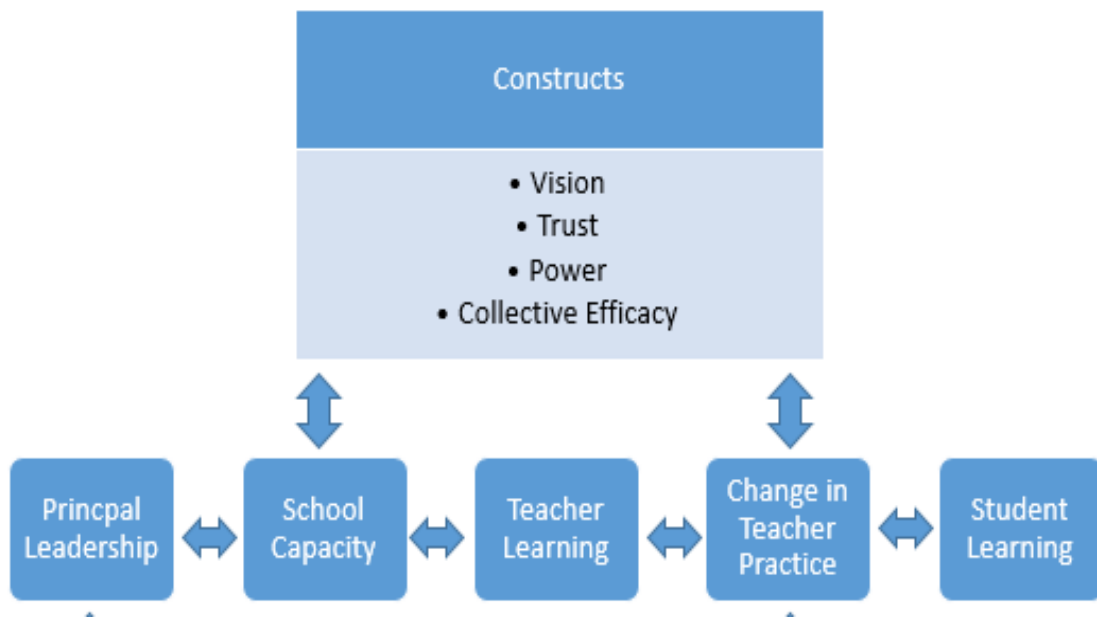
During the review of literature, several themes emerged related to leadership constructs that impact school culture. These constructs guide this research and outline the way leadership impacts teaching and learning. The next sections outline constructs of principal leadership that impact school culture: vision, trust, power, and self-efficacy.

These constructs illuminate the actions that lead to strengthening the pathways between leadership and change in teacher practice.

The conceptual model adapted from Hallinger et al. (2016), Figure 3, guided this research and outlined the paths through which principal leadership impacts teaching and learning. Principal leadership directly impacts school capacity (Hallinger et al., 2016; Hallinger & Heck, 2014; Leithwood et al., 2004). School capacity, as defined by Newmann et al. (2000) in Hallinger et al. (2016), encompasses the skills and dispositions of individual teachers, the strength of the school’s professional community, and the principal's leadership. The model suggests that specific constructs associated with principal leadership indirectly impact student learning. The label “change in teacher practice” indicates that leadership is a catalyst for change in teacher practice (Hallinger et al., 2016).

Figure 3

Conceptual Model of School Leadership Effects



Note. Adapted from Hallinger et al., 2016.

Newmann et al. (2000) expanded upon Hallinger's (2016) model by indicating that with teacher professional development a school's capacity can improve, which would suggest that the model's arrows are dynamic and can cause change in either direction. The next sections outline constructs of principal leadership that impact school capacity and teacher learning: vision, trust, power, and self-efficacy which will illuminate the actions that lead to strengthening the pathways between leadership and change in teacher practice.

Vision

Developing a shared vision impacts student outcomes; in schools where teachers indicate collaborative goal setting, students tend to achieve more than in comparison schools (Robinson, 2011). Investing time and energy into building relationships and establishing collaborative systems bring stakeholders together allowing for accomplishment of shared goals that realize the vision. Leaders who work together with all stakeholders encourage a positive culture, and a clear vision guides and facilitates decision and actions (Yukl, 2012). The current Professional Standards for Educational Leaders outlines the importance of goal and vision-setting in the first standard: "effective educational leaders develop, advocate, and enact a shared mission, vision, and core values of high-quality education and academic success and well-being of each student" (National Policy Board for Educational Administration, 2015). Investing time and energy into building relationships and establishing collaborative systems bring stakeholders together promoting the accomplishment of shared goals that realize the vision. Effective leaders do not independently write and adhere to their own vision. Developing a shared

vision requires conversation and interaction where the leaders position themselves among their staff rather than above them (Dufour & Marzano, 2011).

Recent studies (Bellibas & Liu, 2017; Bowers et al., 2017; Day et al., 2016; Moore et al., 2016) support Hallinger and Murphy's (1985) instructional leadership model that encompasses three dimensions: defining the school's mission, managing the school's instructional program, and promoting a positive school learning climate. Defining the school's mission, the first dimension, outlines the importance of the principal establishing a process to collaboratively develop a mission, frame the school's goals, and effectively communicate to all stakeholders (Hallinger & Murphy, 2013). When principals emphasize instruction and support teachers' implementation of practices, teachers are more likely to implement effective instructional strategies (Bellibas & Liu, 2017). Improving schools requires that school leaders demonstrate expertise in instructional leadership (Blase & Blase, 1998; Gurley et al., 2015; Leithwood & Louis, 2012). Leithwood et al. (2004) indicated that instructional leaders must focus on (a) building and communicating a compelling vision; (b) developing shared goals; (c) engaging in effective planning and organization; (d) clarifying roles and objectives; (e) motivating and inspiring others; and (f) setting high performance expectations for all. Louis and Robinson's (2012) study confirmed the importance of developing leaders with a clear vision with an understanding of their teachers and families. Without a strong educational vision, principals do not motivate teachers' commitment to the pursuit of goals nor their capacity to change their practices.

Trust

By involving key stakeholders in the process of visioning by articulating beliefs and being open to the beliefs of others, leaders foster relational trust (Bryk & Schneider, 2002; Cranston, 2011). Trust is crucial in strengthening the pathway between leadership, school capacity, and teacher change. Relational trust, anchored in social interactions, describes the extent that there is respect and understanding among individuals and groups (Bryk & Schneider, 2002). Cranston (2011) outlined an example of relational trust:

When a principal holds views about his or her own responsibilities and the responsibilities of teachers that are consistent with those held by the teachers themselves, then there is a match in assumed values, which in turn begins to build a foundation for the growth of trust. In order for relational trust to grow and be reinforced, however, both principal and teachers must observe the behavior of the other as consistent with these mutually held expectations. (p. 62)

Building trust requires risk. School leaders model and hold others accountable for the foundational qualities on which we build trust: respect, honesty, openness, competence, and integrity (Robinson, 2011; Tschannen-Moran, 2004). Leaders establish relational trust through authentic problem solving rooted in improving the outcomes for students. Relational trust is an outcome of collaborating and working alongside teachers. By working together and having open conversations, leaders create shared ownership of ideas (Robinson, 2013, Meyer et al., 2017). Effective leaders promote dialogue and critical conversations; these conversations work best when leaders and the participants have an emotional investment and have established trust and respect (Ryan, 2006).

Organizational research indicates that it makes a difference when participants in an organization trust the leaders' decision-making capacity (Leithwood & Jantzi, 2012). Specific leadership practices and indicators such as competence, consistency, and integrity promote teachers' trust in principals (Handford & Leithwood, 2012). Understanding the level of trust in leaders helps to gain insight into staff members' willingness to risk innovative practices; trust is essential for organizational change as new practices can result in a dip in performance. (Handford & Leithwood, 2012).

Respect and openness between members of a school community and the leaders are critical for facilitating a culture that supports teachers' learning (Li et al., 2016; Saphier & King, 1985; Tschannen-Moran, 2004.) School leaders have the responsibility to establish and support teachers' professional learning, defined as the new knowledge, skills and ideas that increase educator effectiveness (Learning Forward, 2011; Ohio Department of Education, 2015a). Professional learning results in teachers' improved instructional practices that enhance positive student outcomes (Li et al., 2016, Learning Forward, 2011, Ohio Department of Education, 2015a). Principals play a crucial role in fostering a collaborative, trusting environment that engages and supports teachers' professional learning.

Power

People expect consistent problem-solving skills from leaders, and their trust comes from two dimensions of leadership: values and skills (Heifetz, 1994). Both formal and informal expectations of leaders play a role in their relationships. Effective leaders recognize their positional power and by conveying their own vulnerability and inviting openness in conversations, they establish a foundation for mutual respect and

understanding (Leithwood & Beatty, 2008; Meyer et al., 2017). Leaders understand the different nuances associated with positional power and appreciate the critical distinctions between personal and positional power. Successful leaders rely more on relationship based or personal power than on entitled power based on a position of authority (Yukl, 2012). Leadership is not just someone in command nor is it defined through authority; it is active and reflective and commands knowledge and a vantage that allows for both observation and participation (Heifetz, 1994).

With the capacity to “get to the balcony,” (Heifetz, 1994, p. 253), leaders are able to make sense of the patterns made by those on the floor and discern characteristics, traits, and situations in a way that would not have been clear if they were in the midst of the action (Heifetz, 1994). Expert observers notice key elements, can elaborate on specific examples, and make thoughtful and timely judgments as opposed to making hasty, evaluative judgments based on incomplete or misconstrued evidence (Fink & Markholt, 2013). School leaders need strong skills and expertise in instructional leadership (Dufour & Marzano, 2011; Hallinger, 2011; Gurley et al., 2015). Armed with the knowledge of how students learn and instructional practices that support the learning, leaders can support teachers’ professional learning and classroom practices that ultimately impact student learning (Fink & Markholt, 2013; Robinson, 2013).

When considering a new initiative, some will comply simply because they consider it an expectation of their leader. Subordinates who are loyal to the organization and who tend to obey rules demonstrate low resistance to requests (Yukl, 2012). When a leader functions as a trustworthy problem solver thereby demonstrating expert power, subordinates often carry out a request without significant explanation (Yukl, 2012).

When considering a new initiative or instructional approach, teachers are more likely to comply and implement the strategy when they are loyal to the district and trust in the expertise of their leader.

Effective leaders value relationships; collective leaders enhance relationships and encourage change by validating the importance and contributions of all stakeholders.

“Leaders who develop coherence around shared values are likely to deepen the sense of community within an organization- a sense of being in a relationship with others who are striving for the same goals” (Grogan & Shakeshaft, 2013, p. 115). Collective leadership approaches rely on shared interests and the capacity to embrace differences and differ from a traditional, top-down approach that relies on power. Collective leadership as explained by Leithwood and Jantzi (2012), “refers to the extent of influence that organizational members and stakeholders exert on decision in their schools,” (p. 11).

Leaders need to develop and maintain connections with individuals by being responsive to their needs and attentive to their feelings (Yukl, 2012). Collective problem solving and collective solutions promote greater support (Robinson, 2013). Collective leadership values diverse ideas and emphasizes dialogue and collaboration (Grogan & Shakeshaft, 2013). Evidence from Leithwood and Jantzi (2012) indicate collective leadership influences student achievement more than individual leadership, supporting distributed and shared leadership practices.

When faced with developing a solution to a problem, leaders understand that problems are often inter-woven and tightly connected (Robinson, 2013). Effective leaders promote a big picture understanding and believe that all individuals have something to contribute (Ryan, 2006; Senge, 2013). Through analysis of the potential responses and

actual criticism, a quality leader considers impact, evaluates which solutions meet the objectives, and satisfies most of the constituents. Experts of collective problem solving own the whole problem, disclose their view while being open to alternatives, and attend to the consequences of various solutions (Robinson, 2013). By involving the staff in the process, school leaders facilitate a collective solution that allows for greater buy-in and support. However, the capacity to solve problems depends on school leaders' knowledge and expert power about how quality teaching impacts student learning (Robinson, 2013).

Collective Efficacy

Understanding collective efficacy in schools, teacher collective efficacy, begins with the concept of self-efficacy, introduced by Bandura (1997) who defined self-efficacy as, "the conviction that one can successfully execute the behavior required to produce outcomes" (p. 193). Several studies indicate that principal leadership, specifically components of instructional leadership, influences teachers' self-efficacy (Bellibas & Liu, 2017; Calik et al., 2012; Duyar et al., 2013). When considering the relationship between principals and teachers, Bellibas and Liu (2017) explained how principal's actions that focus on instruction encourage collective teacher efficacy:

when principals take actions to support cooperation among teachers for developing new teaching practices and ensure that teachers take responsibility for improving their teaching skills and feel responsible for their students' learning outcomes, teachers are more likely to develop increased self-efficacy in incorporating multiple and effective instructional strategies in their teaching. (p.

64)

Hattie (2016) ranked collective efficacy, sharing in this belief that teachers' collective actions positively impact student outcomes, as the number one factor influencing student achievement (Donohoo, 2017). Ramos et al. (2014) found a positive correlation between collective teacher efficacy and student achievement in their review of research. Donohoo (2017) cited Tschannen-Moran and Barr's definition of collective teacher efficacy: "collective self-perception that teachers in a given school make an educational difference to their students over and above the educational impact of their homes and communities" (Tschannen-Moran & Barr, 2004, p. 190). Efficacy helps to determine educators' focus and response to challenges; collective teacher efficacy is built through shared experiences and reflective practices that connect their collective actions to student outcomes (Donohoo, 2017).

The constructs of principal leadership that impact school capacity and teacher learning: vision, trust, power, and self-efficacy strengthen the pathways between leadership and change in teacher practice. Research outlines the crucial importance of leaders, specifically on principals' role as instructional leaders in 21st century schools as the impetus of school improvement (Bellibas & Liu, 2017; Blase & Blase, 1998; Day et al., 2016; Dufour & Marzano, 2011; Hallinger et al., 2016; Li et al., 2016).

History of School Leaders' Accountability

For the last 50 years, state and federal mandates have shifted to support the expectation for the principal to fulfill the role as an accountable, instructional leader. Most educators and politicians cite 21st century American public education as the *accountability era* (Robinson, 2018; Tschannen-Moran & Gareis, 2014). This term has its roots in the 1960s with two federal initiatives: the Elementary and Secondary Education

Act (ESEA) of 1965, which allocated federal dollars to school districts, and the first national assessments now known as the National Assessment of Education Progress (Robinson, 2018; National Assessment of Educational Progress, 2020). Many associate the start of the accountability system in education in the 1980s with the publication of *A Nation at Risk: The Imperative for Educational Reform* (United States, 1983). This report highlights the deficits in American education. It declared American schools as failing and called for significant reform as the answer. *A Nation at Risk* highlighted a variety of challenges: mediocre to poor performance on international tests, an illiteracy rate of 13% among 17-year-olds, falling student achievement on standardized tests, and a sharp increase in the need for remedial education in colleges. (U.S. Department of Education, 2008) Recommendations for reform focused on five areas: curriculum content, standards and expectations of students, time devoted to education, teacher quality, and educational leadership and the financial support of education (U.S. Department of Education, 2008). The report outlined national concerns we were not developing the leadership needed for our schools and supported financial resources to augment school boards' development of principals and superintendents goal setting, managerial, and supervisory skills.

Historically, principals ran the school, managed the staff, attended to the general operations, and developed rules and procedures (Wahlstrom et al., 2010). However, studies such as the one conducted by Brookover et al. (1978) began to change the expectation of school leaders; effective schools became correlated with high standards for achievement and a culture oriented toward learning (Wahlstrom et al., 2010). Principals' roles have shifted from an operations focus to a focus on teaching and learning in a collaborative culture. With a goal of understanding the characteristics and actions of

leaders of effective schools, researchers (Austin, 1979; Edmonds, 1979; Rosenholtz, 1985) in the 1970s and 1980s connected school leaders' behaviors, perceptions, and interactions to the schools' desirable student outcomes. Effective schools have principals who spend their time on instructional issues and carefully monitor student progress rather than focus solely on managerial tasks (Austin, 1979; Edmonds, 1979).

The trend to examine the qualities of our schools and hold teachers and administrators accountable continued during the George W. Bush and Clinton presidencies. Congress passed the Improving America's Schools Act in 1994 with intended outcomes of high achievement for all students and support for standards and accountability for student achievement. President Clinton used this act to create an Education Summit which developed Goals 2000: Educate America Act which established 8 national goals for students, teachers, and administrators to achieve before the year 2000 (Goals 2000, 1994). The goals included proficiency requirements in specific content areas and grade levels, as well as literacy standards.

Despite these efforts, change was not evident. In 2001, President George W. Bush expanded the role of the federal government in America's schools by enacting the No Child Left Behind Act (No Child Left Behind Act [NCLB], 2002). In addition to a focus on standards, NCLB also increased the accountability system in place to determine effectiveness and to ensure student proficiency. NCLB raised the bar on accountability by ensuring that states adopted assessments that would publicly inform parents and the community about how students and subgroups performed in every public school (Robinson, 2018). Although met with significant criticism, the federal law did

significantly increase federal funding for education and targeted funding for professional development (Robinson, 2018; Zepeda, 2012).

In 2015, the Federal Government reauthorized the 1965 Elementary and Secondary Education Act under the Every Student Succeeds Act (ESSA) retaining the goal of greater equity in education and improving outcomes for economically disadvantaged and marginalized students (Robinson, 2018). It included accountability measures that continued to promote the improvement of teacher quality and designing teacher and principal evaluation systems that measure student growth.

Like many other states, in the beginning of the 21st century, Ohio implemented new accountability systems for evaluating teachers and principals and established new standards for the teaching profession, principals, superintendents, school treasurers and school business managers, and standards for professional development. In 2004, the passing of Senate Bill (SB) 2 mandated specific actions for the Ohio Department of Education and local districts in areas of standards, teacher preparation, recruitment and retention, and professional development (Ohio Department of Education, 2019c). The current evaluation framework for principals, adopted in 2008 to assess the performance of Ohio principals, targets five standards related to: continuous improvement; instruction; school operations, resources, and learning environment; collaboration; and parent and community engagement (Ohio Department of Education, 2015b). The standards detail the instructional role that principals must adhere to in order to meet the standards outlined in the performance rating rubric and maintain an effective rating. The Ohio Principal Performance Rubric Rating indicates several standards and elements that connect to instruction and learning.

Standard 2: Instruction, Principals support the implementation of high-quality standards-based instruction that results in higher levels of achievement for all students. Element 3.4: Principles institute procedures and practices to support staff and students and establish an environment that is conducive to learning.

Standard 4: Collaboration: Principals establish and sustain collaborative learning and shared leadership to promote learning and achievement of all students. (Ohio Department of Education, 2015b)

With principal standards connected to student learning and accountability measures in place to publicly report the achievement of students in the building, principals ideally focus their attention on enhancing a culture that promotes the use of effective instructional practices and improving student outcomes.

During the spring of 2020, school leaders faced a crisis unlike any other in the history of education. “A new chapter of educational history is being written because of COVID-19” (Harris, 2020, p. 325). The COVID-19 pandemic transformed school leaders’ work across the world, earning principals the title “the other first responders” (Osmond-Johnson et al., 2020) as they developed new skills and pivoted their role to focus on safe schools and digital instruction (Pollock, 2020). Principals as instructional leaders are accountable for the effective pedagogical practices and positive student outcomes; the pandemic abruptly converted most schools to virtual learning with little to no preparation, yet the accountability for student success remained (Pollock, 2020). The National Association of Elementary School Principals reported principals citing scaling up education technology as a critical concern with 82% of respondents sharing their uncertainty related to district plans to deliver curriculum and instruction during an

extended COVID-19 outbreak (NAESP, 2020). Educators around the world reassessed everything they valued, knew, and trusted (Harris, 2020). School leaders focused on supporting teachers, students, and parents in their transition to a new way of schooling while establishing and maintaining trust through new communication strategies and engagement practices (Pollack, 2020). Achieving the standards associated with effective school leadership, such as building a positive school culture, requires exhausting and incessant work; during a pandemic this work looks and feels different for leaders as they are distanced and disconnected from those they lead (Harris, 2020; Leithwood et al., 2020).

School Leaders and School Culture

School leaders foster a school culture that impacts student achievement (Marzano et al., 2005). School culture represents the shared values, belief, patterns of behavior, and relationships in the school (Valentine, 2006). In their meta-analysis, Marzano et al. (2005) described leaders' behaviors that directly relate to school culture including: (a) promoting cohesion among staff, (b) promoting a sense of well-being, (c) developing an understanding of purpose among staff, and (d) developing a shared vision (Marzano et al., 2005, p. 48). Researchers conclude that a positive relationship exists between a collaborative school culture and student achievement (Berkowitz et al., 2016; Deal & Peterson, 2013; Gruenert, 2005; Keiser & Schulte, 2009; Leithwood & Jantzi, 2012).

Schein (1992) explained culture as a group's shared behavioral, emotional, and cognitive learning sustained over time. Leaders impact the organizational culture through their embedded beliefs and assumptions which affect how people in their organizations perceive, think, feel, and behave (Schein, 2010). "The culture is the historically

transmitted pattern of meaning that wields astonishing power in shaping what people think and how they act,” (Barth, 2013, p. 198). Unless administrators and teachers work to change the culture of their school, school improvement efforts will be incapable of making a difference (Barth, 2013b).

Measuring School Culture

Measuring a school’s culture is a key step in school improvement (Valentine, 2006). The School Culture Survey (SCS), a valid and reliable instrument, provides data about six cultural factors based on the perception of the school staff: 1) Collaborative Leadership, 2) Teacher Collaboration, 3) Professional Development, 4) Collegial Support, 5) Unity of Purpose, and 6) Learning Partnership (Valentine, 2006).

Collaborative leadership ($\alpha = .910$) indicates the degree to which school leaders maintain collaborative relationships with staff (Gruenert & Valentine, 1998). Components of teacher collaboration ($\alpha = .834$) measure the extent to which teachers interact with colleagues to support the school’s vision (Gruenert & Valentine, 1998). Professional development ($\alpha = .867$) indicates the degree to which teachers value their own personal growth as well as school-wide improvement efforts (Gruenert & Valentine, 1998).

Collegial support ($\alpha = .796$) indicates the extent to which teachers trust and value each other and work effectively together (Gruenert & Valentine, 1998). Unity of purpose ($\alpha = .821$) measures the degree to which teachers collaborate to reach the school’s mission (Gruenert & Valentine, 1998). Learning partnership ($\alpha = .658$) measures the degree to which teachers, parents, and students accept responsibility and maintain focus on what is best for the student (Gruenert & Valentine, 1998). The SCS measures the collaborative nature of a school staff to get a sense of the existence of trust, supportive relationships,

and a mission to promote student learning and teachers' professional learning (Gruenert & Whitaker, 2015).

Professional Learning Through Professional Development

By supporting teachers' professional learning, leaders positively impact student learning outcomes (Goddard et al., 2015). The Educational Leadership Constituent Council (ELCC) Standards and the newly developed National Educational Leadership Preparation (NELP) Program Recognition Standards provide an outline of successful performance indicators for effective school and district level leadership. Both sets of standards highlight the importance of instructional leadership and the capacity of the school leader to promote the success of every student by sustaining a culture and instructional program conducive to student learning and staff professional learning (National Policy Board for Educational Administration, 2015; National Policy Board for Educational Administration, 2018).

Teachers need effective professional development to manage the increasingly complex skills students need to navigate their education and career pathways (Darling-Hammond et al., 2017). Professional learning for teachers requires a clear focus on teaching, curriculum, assessment, and leadership (Reeves, 2010). Effective professional development as defined by Darling-Hammond et al. (2017) involves structured professional learning resulting in a change in teacher practices and improvement to student outcomes. As explained by Hilton et al. (2015), "teacher change occurs through complex and interconnected processes in which teachers engage as active learners within professional learning" (p. 105). Guskey (2020) argued that professional learning endeavors assume that change in teachers' attitudes will lead to changes in their

practices; however, he claims it is application and evidence of new practices that actually encourage a change of teachers' beliefs. Because experience shapes teachers' beliefs, leaders need to support teachers in their growth process and allow them to reflect on their endeavors (Guskey, 2020).

Darling-Hammond et al. (2017) outlined specific features of effective professional development derived from extensive review of literature over the last three decades: supports collaboration, uses models of effective practice, provides coaching and expert support, offers feedback and reflection, and is of sustained duration. Collaborative structures that allow for teachers to problem solve and work together positively contribute to student achievement (Allen et al., 2011; Darling-Hammond et al., 2017). Studies that incorporate models of effective practices such as videos of teaching, examples of lesson plans, peer observation, and student work samples promote teacher learning (Darling-Hammond et al., 2017; Doppelt et al., 2009; Heller et al., 2012). When experts and coaches work with teachers, teachers' learning outcomes improve (Darling-Hammond et al., 2017; Kleickmann et al., 2016; Roth et al., 2011). Without a sustained duration, none of the aforementioned practices could develop into meaningful professional learning.

Reeves (2010) asserted that educators know what effective professional learning looks like: intensive, sustained, relevant, with opportunities for application and reflection. The practices and people make the difference in professional learning (Reeves, 2010). Principals' participation and supportive actions related to professional development encourage teachers' implementation of research-based best practices (Reeves, 2010).

Leaders who create the conditions to help teachers succeed will see successful outcomes in teachers' professional learning (Dufour & Marzano, 2011).

The Ohio Standards for Professional Development outline standards, elements, conditions, and content for effective professional learning (Ohio Department of Education, 2015a). The Ohio Educator Standards Board developed the Ohio Standards for Professional Development using the resource, Standards for Professional Learning, developed by the international, nonprofit education association Learning Forward. Ohio's seven standards set clear expectations for professional learning that include the use of data, developing learning communities, effective leadership practices, and implementation and learning designs. The standards acknowledge, "a strong relationship exists between educational leadership, professional learning, teaching knowledge and practices, and student results" (Ohio Department of Education, 2015a, p. 2).

Participating with colleagues during professional development encourages conversation and reflection. "The most important aspect of professional development in any school is the dialogue that teachers engage in afterward," (Gruenert & Whitaker, 2015, p. 105). Conversation among teachers who engage in professional development is a critical component of a collaborative school culture (Gruenert & Whitaker, 2015). Dialogue and interaction develop connections and understanding (Saphier et al., 2008). Sociocultural learning theory assumes that learning develops in social contexts and evolves through group participation and interaction rather than individual acquisition of knowledge (Gallucci, 2008).

Professional Development During a Pandemic

The pandemic, COVID-19, during the spring and fall of 2020 created new stressors on resources and many schools struggled to navigate this “unprecedented instructional territory” (Tran et al., 2020, p. 40). District and school leaders, teacher educators, researchers, and practitioners attempted to provide support with online learning, addressing mental health issues, and encouraging a variety of strategies to address both synchronous and asynchronous learning (Hartshorne et al., 2020). School leaders expressed concern with online professional development lacking engagement, but the proponents of virtual professional development expressed positivity around the interaction of educators from various locations and backgrounds (Henebery, 2020.) Professional development during the spring and fall of 2020 has been strongly influenced by the skills needed to teach and lead during a pandemic (Henebery, 2020). Teachers’ professional development needs differ as they experience different learning and performance contexts and attempt to maintain continuity of instruction for their students (Lockee, 2020).

School personnel reported feeling anxious for their own well-being as well as for the safety and well-being of their families, colleagues, and students (Tran et al., 2020). The pandemic placed additional stressors on educators’ emotion and motivation during the spring and fall of 2020 (Hartshorne et al., 2020; Lockee, 2020). School leaders considered the emotional and physical health of teaching staff as they faced stress and burnout and weighed if the logistics and risks associated with teachers attending professional development were greater than the benefit (Hartshorne et al., 2020; Pollock, 2020).

Measuring Teachers' Motivation to Integrate Professional Development

Leaders organize professional development on the premise that it drives positive change by improving teachers' skills and motivating them to put new ideas into their classroom practice (Opfer & Peddler, 2011; Osman & Warner, 2020). However, results of professional development present mixed evidence due to the unique nature of adult learners (Gegenfurtner, 2011; Osman & Warner, 2020). Learning is a personal process for adults because of their accumulated life experiences (Issah, 2020; Knowles et al., 2005). Knowles (1970) proposed the concept of andragogy, the theory of adult learning. Adult learning, a self-directed process of acquiring knowledge based on personal goals, occurs within the context of their perspectives, capabilities, and experiences (Issah, 2020; Knowles et al., 2005; Morris & Klunk, 2016).

Adult learning is collaborative and participatory (Knowles et al., 2005). When teachers collaborate and interact, they develop their learning. Adult learning theory supports learning that takes place through elaborating on existing frames of reference (Kelly, 2017). Sociocultural learning theory assumes that learning develops in social contexts and evolves through group participation and interaction (Gallucci, 2008). The foundational principles of adult learning theory and sociocultural learning theory enhance how critical reflection occurs through opportunities for discussion with colleagues (Kelly, 2017; Timperley, 2011). People assist others in learning and teams evolve through social processes (Higgins et al., 2011; Stein & Colburn, 2008). In schools, when leaders foster discourse and value the contributions of teachers, they enhance positive outcomes (Robinson, 2011). Teacher professional learning outcomes are often evaluated with student achievement outcomes; however, teachers require time for critical reflection and

the measurement of their new learning should relate to adult learning theory with evidence of success connected to teachers' collaborative time and collective improvement efforts (Kelly, 2017). When teachers engage in professional learning through specific professional development opportunities, they learn research-based instructional practices. When principals participate in the professional development or demonstrate their support of it, they increase the dialogue around the content causing a greater understanding (Dufour & Marzano, 2011). Through learning collectively and reflecting individually, teachers improve instructional practices (Jordi, 2011; Kelly, 2017).

Teachers differ in how they interpret the experience of professional development and the way they value the ideas (Osman & Warner, 2020, p. 2). Teachers who demonstrate motivation to implement professional development tend to integrate the practices in their classrooms (Lohman, 2006; Osman & Warner, 2020). To measure this motivation, Osman and Warner (2020) developed a 9-item short scale. "The Expectancy-Value-Cost for Professional Development scale (EVC-PD) is a valid and reliable measure of teachers' expectancies for success, task values, and perceived costs of implementing what they learn in their professional development experiences," (Osman & Warner, 2020 p. 6). The three constructs, expectancy for success ($\alpha = .88$), task value ($\alpha = .77$), and perceived cost ($\alpha = .91$), affect teachers' decisions about if and to what extent they will integrate professional development in their classrooms (Osman & Warner, 2020).

Summary

School leaders facilitate improvement efforts that impact student achievement (Blase & Blase, 1998; Dhuy & Smith, 2014; Dufour & Marzano, 2011; Hoy & Hoy, 2013; Leithwood & Louis, 2012; Robinson, 2011; Smith & Andrews, 1989). Specific

leadership behaviors impact team and individual performance; from visioning to celebrating progress to planning and organizing projects and initiatives, the leader plays a significant role in influencing others (Yukl, 2012). Successful leaders directly and indirectly impact positive outcomes.

Sociocultural theories of learning and organizational culture form the foundation for this research. In schools, when principals foster discourse and value the contributions of teachers, they enhance positive outcomes (Deal & Peterson, 2013; Robinson, 2011; Starratt, 2013). Leaders establish systems that promote the success of others. They lead through fostering an environment that enables others to recognize their contributions. Leaders' work, a complex influential process with practices, understandings, and values, evolves and persists over time (Ryan, 2006). When school leaders implement practices that promote collaboration and trust, they enhance the likelihood of teachers implementing engaging, effective practices in their classrooms (Day et al., 2016; Li et al., 2016; Robinson, 2011; Tschannen-Moran, 2004).

Tools to measure teachers' perceptions of school culture and their motivation to implement professional development allow leaders to target improvement efforts. Using valid and reliable tools facilitate leaders' understanding of the different types of support teachers need to continue to develop and grow in their capacity to enhance student outcomes.

CHAPTER III

METHODOLOGY

This chapter outlines the research strategy and methodology for the study; the strategy encompasses the research design or plan of action to achieve a goal, while the research method consists of the tools for data collection (Denscombe, 2017). The researcher used explanatory correlational research to determine if a relationship exists between two variables. Correlational relational research allowed the researcher to analyze if changes in one variable reflect change in the other (Creswell & Gutterman, 2019). This quantitative, non-experimental design used a survey to describe the attitudes and opinions of a population by examining a sample of that population (Creswell & Creswell, 2018).

Research Purpose and Questions

The purpose of this study was to determine if a relationship exists between school culture and the motivation to integrate professional development into practice for public school teachers in northeast Ohio. By understanding the relationship between these two variables, leaders may be able to identify factors that relate to teachers' implementation of the content they learn during professional development. By using a correlational study, the researcher was able to determine the direction and degree of association between two sets of scores (Creswell & Guetterman, 2019).

The dependent variable, teachers' motivation to integrate professional development, is an outcome variable and reflects the hypothesized relationships found within this study. The independent variables, ratings of school culture factors, could relate to teachers' motivation to integrate professional development. The researcher also considered if any control variables relate to teachers' motivation to integrate professional

development into practice. “A control variable is a form of an independent variable that researchers measure for the purposes of eliminating it as a possibility, but it is not a central variable of concern in explaining the dependent variables or outcomes” (Creswell & Guetterman, 2019, p. 115). The researcher considered the demographic variables such as years of teaching experience, typology of the district, school level, and type of professional development as the control variables. In addition, the researcher considered three factors: duration of the professional development; if the participant attended with a colleague; and if the participant followed up with others at their school. These additional control variables could influence the outcome of teachers’ motivation to integrate the professional learning into their practice.

The intent of the study was to consider if a relationship exists between the independent variable, teachers’ rating of their school culture factors, and the dependent variable, their motivation to integrate professional development into practice. The following research questions were addressed in this study:

1. Is there a relationship between teachers’ ratings of their school culture factors (collaborative leadership, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership) and their motivation to integrate professional development into practice?
2. What effect do control variables, such as years of teaching experience, typology of the district, school level, type of professional development, duration of the professional development, if the participant attended with a colleague, and if the participant followed up with others at their school, have on teachers’ motivation to integrate professional development into practice?

The research questions were designed to investigate factors that influence teachers' implementation of practices learned during professional development. The researcher attempted to determine if teachers who have a higher rated school culture will demonstrate a greater level of motivation to implement the strategies learned in professional development. Variables such as the duration of the professional development, the number of years a teacher has been teaching, and participation with a colleague, were also considered as they relate to teachers' motivation to integrate the learning from the professional development into their practice. The intent of the study was to consider if a relationship exists between a teachers' rating of their school culture and their motivation to integrate professional development into practice.

Research Hypotheses

The researcher used directional alternative hypotheses to predict the outcome of the study. Researchers use this typical form for writing hypotheses to predict the direction of change and relationship for variables (Creswell & Guettermann, 2019). In order to determine a relationship between school climate and teachers' motivation to integrate professional development, the researcher examined teachers' rating of their school climate factors using a School Climate Survey and their rating of their motivation to integrate professional development using an Expectancy-Value-Cost in Professional Development Scale (EVC-PD):

Hypothesis 1: The ratings on the school climate survey factors will have a predictable association and a positive correlation on the scores on the EVC-PD scale.

In order to test for association between participation with others from their school and motivation to integrate professional development:

Hypothesis 2: Those teachers who have a colleague who participates with them in the professional development will have higher ratings on the EVC-PD scale than those teachers who participate without someone from their school.

To test for association between duration of the professional development and teachers' motivation to integrate professional development:

Hypothesis 3: The level of follow up pertaining to the professional development will have a predictable association and a positive correlation on the scores on the EVC-PD scale. .

Research Design

This research maintained elements of post-positivism as well as social constructivism. The theoretical framework, established in Chapter II, outlined how sociocultural learning theory and organizational culture establish the foundation of this study. While these theories tend to relate to a constructivist worldview; the elements of post-positivism connect to the research methodology in this chapter. Social constructivists assume that individuals seek understanding of their world and comprehend their experiences with discussion and interactions with others (Creswell & Creswell, 2018). Post-positivists consider how data and evidence explain situations and consider the relationship among variables (Creswell & Creswell, 2018). The researcher carefully analyzed validity and reliability because post-positivists value being objective as they work through collecting data that support or negate a theory or hypothesis (Creswell & Creswell, 2018).

The researcher employed a quantitative, correlational design using a cross-sectional survey to collect data about the attitudes, opinions, and practices of teachers

who participated in professional development. Correlational research provides a snapshot of a single point in time where the researcher does not influence the variables (Field, 2018). A correlational study examines a problem that requires the understanding of the direction and degree of association between two quantitative sets of scores (Creswell & Guetterman, 2019). A key step in correlational research involves determining the probability that the observed correlation occurred by chance or if there is a statistically significant relationship between the variables (Trochim & Donnelly, 2008). The dependent variable, teachers' motivation to integrate professional development, was an outcome variable. The independent variables, school culture ratings and participation with a colleague, served as factors that could relate to teachers' motivation to integrate professional development.

When analyzing correlational research, the independent variable also known as the predictor variable, may statistically predict one or more outcome variables (Field, 2018). However, while the variables may coincide, this does not imply that change in one variable causes the other to change (Field, 2018). There may be other measured or unmeasured variables that affect the two correlated variables; correlational research shows patterns of relationships, not cause and effect (Creswell & Guetterman, 2019; Field, 2018). Correlational design and causal comparative design have similar components, such as examining a relationship between variables and using similar statistical tests (Trochim & Donnelly, 2008). A weakness of correlational research includes the lack of determining a causal relationship that could lead to a scientific rationale for change (Trochim & Donnelly, 2008). However, benefits of correlational research include being able to determine the direction, the degree, and the strength of the

relationship between two variables and identifying variables that can predict an outcome (Creswell & Guetterman, 2019).

To obtain the data to establish the variables, the researcher conducted a non-experimental survey. A survey helps to identify important beliefs and attitudes of individuals as well as provide information to evaluate practices and programs (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). This study, a cross-sectional survey, considered the relationship between teachers' ratings of their school culture and their rating of motivation to integrate professional development into practice. The survey also documented questions such as years of teaching experience, typology of the district, school level, type of professional development, duration of the professional development, if the participant attended with a colleague, and if the participant followed up with others at their school. Cross-sectional survey designs measure current attitudes and practices of a population at one point in time by studying a sample of that population (Creswell & Creswell, 2018; Creswell & Guetterman, 2019).

Fraenkel and Wallen (2013) outlined problems in the instrumentation process of survey research such as misleading or insensitive questions, as well as threats to internal validity including mortality, location, and instrument decay. The researcher considered relevant factors to determine threats to internal validity and did not find any concern with mortality which occurs in longitudinal studies (Fraenkel & Wallen, 2013). Because the survey was completed online, individually, and on their own time, location threat and instrument decay were not threats to the validity of this survey (Fraenkel & Wallen, 2013). Considering the instruments used in this study, Expectancy Value Cost of

Professional Development (EVC-PD) and School Culture Survey (SCS), both have proven validity and reliability measures.

Participants

Participants in this study included teachers in Ohio. A total of 107,677 public school teachers work in Ohio's 610 traditional school districts (Ohio Department of Education, 2020a). Ohio's 52 Educational Service Centers (ESCs) are geographically distributed across Ohio to serve the school districts in their area, and they provide schools with services, support, and professional development in areas such as leadership, curriculum, instruction, and assessment (Ohio Educational Service Center Association [OESCA], 2009). As mandated through Ohio Revised Code, ESCs serve as a delivery system for Ohio's school improvement efforts including areas such as special education services, high quality professional development, and implementation of federal and state regulations (OESCA, 2009).

Target Population

The researcher considered the population: teachers in Ohio; the target population: teachers who participated in professional development from ESCs in northeastern Ohio; and the sample: participants who completed the survey. The target population, a group of individuals with common defining characteristics (Creswell & Guetterman, 2019), included teachers who participated in professional development offered by an ESC in northeastern Ohio. While teachers have a variety of ways to pursue their professional learning, the researcher chose to use ESCs because they partner with school districts in Ohio. ESCs understand their districts' needs; through professional development,

networks, and services, ESCs positively impact teachers' instruction and improve student outcomes (OESCA, 2009).

In an effort to obtain results from participants with a range of demographic information, the researcher targeted four ESCs in northeastern Ohio. Identified by their county, ESCs serve a variety of districts: Lorain County ESC (15 districts), Summit County ESC (15 districts), Trumbull County (20 districts), and Cuyahoga County ESC, which recently changed its name to the ESC of Northeast Ohio, (47 districts). Within these four regions, there are urban, suburban, and rural districts that have students with a variety of socioeconomic and racial backgrounds. These districts vary in their size and status; some smaller districts constitute five schools with about 160 teachers and some larger districts constitute about 50 schools with about 1,400 teachers. In total, these four ESCs in northeastern Ohio have the capacity to provide professional development to a large number of teachers; however, not all teachers will have participated in professional development during the window of the study.

Sampling Method and Sample Size

The researcher was purposeful in targeting only those teachers who have participated in professional development and used a nonprobability sampling approach because the participants represent a characteristic the researcher seeks to study (Creswell & Guetterman, 2019). Also known as purposive or convenience sampling, this type of sample may lack evidence that they represent the population (Trochim & Donnelly, 2008). The target population for this study, teachers from a potential of 97 school districts who participated in professional development affiliated with the four ESCs in northeastern Ohio, may not be able to be generalized to all teachers in northeast Ohio.

To reach the target population, the researcher relied on the superintendents at the ESC to direct the distribution of the survey to those teachers who participated in professional development. For this study, the researcher was not able to use probability sampling because the access to the list of participants who participate in professional development is not public record. The researcher used snowball sampling, a nonprobability sampling approach that relies on others to identify participants in the sample due to their inaccessibility (Creswell & Guetterman, 2019; Trochim & Donnelly, 2008). The researcher asked the superintendents of the ESCs to direct the surveys to those teachers who have participated in professional development since August of 2020. Snowball sampling allowed the superintendents to maintain the confidentiality of the teachers' names and email addresses who participated in professional development at their ESC. Snowball sampling can potentially bring in large numbers of participants, but the researcher did not know which individuals were in the target population; therefore, the researcher did not know who did not return the survey (Creswell & Guetterman, 2019). Reliance on snowball sampling did not permit the researcher to ascertain an approximate number of teachers in the target population. Therefore, the researcher needed to rely on obtaining a sufficient number of participants as cited by Cohen (1992) in Creswell and Guetterman (2019): "approximately 70 participants for a correlational study that relates variables," (p. 144). Typically, snowball sampling does not allow for generalization to the population and also has low external validity, the degree to which the study's conclusions would sustain for others (Trochim & Donnelly, 2018).

The researcher considered teacher participation in professional development through an ESC as the primary criteria for being included in the study. Surveys were sent

to all teachers who participated in professional development within the timeframe of August 2020 to January 2021. To maximize the number of surveys received and reduce nonresponse, the researcher employed rigorous administration procedures, such as contacting participants frequently, to achieve as large a return rate as possible (Creswell & Guetterman, 2019). Based on the recommendations of Creswell and Guetterman (2019), the researcher employed a multi-phase survey administration procedure. First, an initial email was sent asking them to participate and it included a link to the survey. The researcher sent a second email within two weeks including another request to complete the survey and a link to the survey. To encourage high participation, the purpose of the study was shared to invoke relevance to their role as teachers. The survey was brief and ideally easy to complete as these are other factors that encourage participation (Creswell & Guetterman, 2019).

Instrumentation

The researcher used two instruments to collect quantitative data. The School Culture Survey (Gruenert & Valentine, 1998) measured six factors of school culture as perceived by teachers. The Expectancy-Value-Cost for Professional Development scale (EVC-PD) measured teachers' motivation to integrate their professional development into practice (Osman & Warner, 2020).

The School Culture Survey

Gruenert and Valentine (1998) conducted an extensive review of literature related to school improvement, culture, and leadership to determine many descriptors of collaborative cultures (Gruenert, 2005). These descriptors eventually became a 79-item pilot survey which they reduced to a six-factor instrument of 35 items (Gruenert &

Valentine, 1998). To establish validity, the authors used correlation methodology with a climate survey, indicating that each of the six factors in the School Culture Survey demonstrated statistical significance with the sections of the Climate Survey (Gruenert, 2005; Gruenert & Valentine, 1998; Howard & Keefe, 1991).

Gruenert and Valentine (1998) conducted an item analysis to determine construct validity and the alpha reliability coefficients for the six factors of the School Culture Survey (Gruenert & Valentine, 1998). The reliability coefficients and the corresponding items within the six factors are outlined in Table 1. “The SCS has strong reliability, that is, teachers are likely to interpret the survey items in a similar way” (Gruenert & Whitaker, 2015).

Table 1

Reliability Coefficient (Cronbach’s alpha) for the 6 Factors in the School Culture Survey

Factors of School Culture	Items	Reliabilities
Collaborative leadership	2, 7, 11, 14, 18, 20, 22, 26, 28, 32, 34	.91
Teacher collaboration	3, 8, 15, 23, 29, 33	.83
Unity of purpose	5, 12, 19, 27, 31	.82
Professional development	1, 9, 16, 24, 30	.87
Collegial support	4, 10, 17, 25	.80
Learning partnership	6, 13, 21, 25	.66

Note: Gruenert & Valentine’s (1998) School Culture Survey

The six main factors measured a unique aspect of a school’s culture. Collaborative Leadership targeted leaders’ behaviors that demonstrate their value of teachers’ ideas in decision making as well as the degree to which school leaders establish collaborative relationships (Gruenert & Valentine, 1998; Gruenert & Whitaker, 2015).

Each factor was measured using a 5-point Likert style scale with responses strongly disagree, disagree, undecided, agree, and strongly agree. Teacher collaboration measured how well teachers work together to plan and evaluate instructional practices (Gruenert & Valentine, 1998; Gruenert & Whitaker, 2015). Professional development considered how teachers seek new learning and value personal and schoolwide improvement (Gruenert & Valentine, 1998; Gruenert & Whitaker, 2015). Unity of purpose measured how teachers understand, support, and work toward a common school mission (Gruenert & Valentine, 1998; Gruenert & Whitaker, 2015). Collegial support considered teachers' trust and their effectiveness in working together (Gruenert & Valentine, 1998; Gruenert & Whitaker, 2015). Learning partnership considered parents and teachers as partners with open communication and trust (Gruenert & Valentine, 1998; Gruenert & Whitaker, 2015).

The Expectancy-Value-Cost for Professional Development Scale

The EVC-PD scale measured teachers' motivation to implement professional development in their classrooms (Osman & Warner, 2020). The three subscales, expectancy, value, and cost each provided insight into the overall motivation for a teacher to integrate what was learned in professional development into practice (Osman & Warner, 2020). Expectancy related to teachers' self-efficacy and their belief that they can be successful in a situation; this correlated with their willingness to overcome any challenges of implementing professional development (Osman & Warner, 2020). Task values measured teachers' subjective evaluation of a task's importance (Osman & Warner, 2020). Cost considered what teachers sacrifice in order to implement new practices learned in professional development (Osman & Warner, 2020).

The authors initially constructed a 24-item protocol, but following extensive field testing, exploratory factor analysis, and reliability analysis, the survey was reduced to nine items that utilize a 6-point Likert-style scale (Osman & Warner, 2020). Measures of internal consistency (Cronbach’s alpha) are greater than 0.75 as indicated in Table 2 (Osman & Warner, 2020). The authors conducted interfactor correlations which indicate statistically significant results suggesting that the three factors measure unique but correlated constructs (Osman & Warner, 2020). In their analysis of reliability, Osman and Warner (2020) indicated that “measures of internal consistency for the three factors were high (expectancy $\alpha = 0.87$; value $\alpha = 0.88$; cost $\alpha = 0.84$)” (p. 5).

Table 2

Reliability Coefficient (Cronbach’s alpha) for the 3 Factors in the EVC-PD scale

Subscales	Items	Reliabilities
Expectancy for success	1, 2, 3	.88
Task value	4, 5, 6	.77
Perceived cost	7, 8, 9	.91

Note: 9-item short scale (Osman & Warner, 2020)

Data Analysis Methods

Using IBM SPSS Statistics, version 26, the researcher used regression analysis to understand the relationship between the independent variables and the dependent variable. The researcher generated descriptive statistics of the data and used tables to represent the data. This correlational study attempted to understand the relationship by considering “the direction of the association, the form of the distribution, the degree of association, and its strength” (Creswell & Guetermann, 2019, p. 348). Using multiple

regression to examine the relationship of multiple independent variables (years of teaching experience, typology of the district, school level, type of professional development, duration of the professional development, if the participant attended with a colleague, and if the participant followed up with others at their school) with a single dependent variable (motivation to integrate professional development), the researcher learned the relative importance of each predictor as well as the combined effect of all independent variables (Creswell & Guetermann, 2019).

Using SPSS, the researcher conducted a bivariate correlation and considered three correlation coefficients: Person's product-moment, Spearman's rho, and Kendall's tau (Field, 2018). Considering factors such as extreme scores, the size of the data set, and tied ranks (Field, 2018), the researcher determined the better correlation analysis to determine the significance of the relationships. The research questions were designed to investigate factors that influence teachers' implementation of practices learned in a professional development opportunity.

The researcher calculated regression coefficients for each variable, evaluated the combined influence of all variables, and provided a visual representation of the results in a table (Creswell & Guetermann, 2019). A regression table showed the beta weight for each predictor variable. Typically represented in standardized form, a beta weight, a coefficient that indicates the magnitude of prediction after removing the effects of other predictors, indicates the strength of the relationship of the predictor variable (Creswell & Guetermann, 2019). The researcher also indicated the correlation of the combination of variables (R) and the coefficient of determination (R^2) which identified the proportion of

variability explained by the independent variables in the dependent variable (Creswell & Guetermann, 2019).

The intent of the study was to consider if a relationship existed between a teachers' rating of their school culture and their motivation to integrate professional development into practice. However, including other independent variables (years of teaching experience, typology of the district, school level, type of professional development, duration of the professional development, if the participant attended with a colleague, and if the participant followed up with others at their school) allowed the researcher to understand how these variables coincide to predict teachers' motivation to integrate professional development into practice.

Limitations

The quantitative survey relied on forced responses to specific questions. Limited perspectives of the teachers were obtained without open-ended questions or follow-up interviews. The researcher was limited to drawing conclusions from the forced response formatted questions. Surveys rely on self-reported information and do not always report what people actually do; they report on their personal perceptions and perspective of their actions (Creswell & Guetterman, 2019).

Snowball sampling prevented the researcher from knowing what individuals were in the target population; therefore, the researcher did not know who did not return the survey (Creswell & Guetterman, 2019). Typically, snowball sampling does not allow for generalization to the population and also has low external validity, the degree to which the study's conclusions would sustain for others (Trochim & Donnelly, 2018).

The timing of the research limited the availability of professional development. Due to the COVID-19 pandemic, regulations prohibited large group gatherings and prompted remote learning with many teachers isolated within their homes and schools (Trikoilis & Papanastasiou, 2020). The pandemic placed additional stressors on educators during the spring and fall of 2020 (Hartshorne et al., 2020). School leaders recognized teachers' stress and contemplated the risks associated with teachers attending professional development (Hartshorne et al., 2020; Pollock, 2020). If teachers did attend a virtual or socially distanced professional development, with the extra stressors of a pandemic, many teachers would consider the time of completing a survey as too burdensome.

Summary

By using a correlational study, the researcher determined the direction and degree of association between two sets of scores (Creswell & Guetterman, 2019). The dependent variable, teachers' motivation to integrate professional development, was an outcome variable and reflected the hypothesized relationships found within this study. The independent variable, school culture, served as a factor that could relate to teachers' motivation to integrate professional development. The researcher considered if the demographic variables such as years of teaching experience, typology of the district, school level, type of professional development, duration of the professional development, if the participant attended with a colleague, and if the participant followed up with others at their school, relate to teachers' motivation to integrate the learning from the professional development into their practice. The researcher analyzed the relationship between the control variables and the dependent variable as the control variables may

influence the outcome of teachers' motivation to integrate the professional learning into their practice.

The researcher used a quantitative method of analysis to determine if any relationship existed between the variables. The researcher used survey data from teachers who have participated in professional development in northeast Ohio. The survey data utilized two survey instruments, the School Culture Survey (SCS) (Gruenert & Valentine, 1998) and the Expectancy-Value-Cost in Professional Development (EVC-PD) 9-item short scale (Osman & Warner, 2020). The six factors of school culture measured in the SCS were collaborative leadership, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership. The three subscales on the EVC-PD were expectancy for success, task value, and perceived cost. Data from the two surveys as well as demographic data were analyzed using correlations and multiple regression analysis to determine the nature of the relationships among the factors of school culture and teachers' motivation to integrate professional development.

CHAPTER IV

RESULTS

The purpose of this quantitative, correlational, non-experimental design using a cross-sectional survey is to determine if a relationship exists between teachers' perceptions of their school culture and their motivation to implement professional development. The researcher considered the population: teachers in Ohio; the target population: teachers who participated in professional development from ESCs in northeastern Ohio; and the sample: participants who complete the survey.

The researcher used a four-part survey that included an overview and informed consent; the School Culture Survey (Appendix B) (Gruenert & Valentine, 1998); the Expectancy-Value-Cost in Professional Development (EVC-PD) 9-item short scale (Appendix C) (Osman & Warner, 2020); and seven professional demographic questions. Teachers' perception of their school culture was measured using the School Culture Survey (SCS) (Gruenert & Valentine, 1998). Teachers' motivation to implement professional development was measured using the Expectancy-Value-Cost in Professional Development (EVC-PD) 9-item short scale (Osman & Warner, 2020).

This chapter describes the level of the response from the participants and their demographics. Then the researcher describes the results of the two survey instruments. The chapter continues with a statistical explanation of the correlation between the two instruments. The chapter concludes with an analysis of the research questions:

1. Is there a relationship between teachers' ratings of their school culture factors (collaborative leadership, teacher collaboration, unity of purpose, professional

development, collegial support, and learning partnership) and their motivation to integrate professional development into practice?

2. What effect do control variables, such as number of years teaching, participation with a colleague, and duration of professional development, have on teachers' motivation to integrate professional development into practice?

Snowball Sampling: Initial Contact

Adhering to the conditions set forth by the Youngstown State University's Internal Review Board, the researcher used an online survey to collect data from teachers who participated in professional development with an Educational Service Center (ESC) in northeast Ohio. The survey contained four sections including an informed consent agreement, two survey instruments, and professional demographic survey questions. The researcher analyzed the responses from teachers who participated in professional development between August 2020 and January 2021.

The researcher used snowball sampling because of the inaccessibility of the participants' identity and contact information (Creswell & Guetterman, 2019). The researcher relied on the superintendents of each ESC to distribute the surveys to teachers via email. First, the researcher obtained permission from the ESC superintendents to conduct research with teachers who participated in professional development at their ESC. Each of the four participating superintendents submitted a letter of agreement to participate in the research. The superintendents agreed to forward two email messages to teachers. Both emails included a link to the survey; the first email invited teachers to participate in the survey and the second email served as a reminder to complete the survey by the deadline. In both messages as well as on the first page of the online survey,

the researcher outlined measures put in place to protect the privacy of respondents. These measures included not collecting any individual or personal information and not collecting any email addresses or IP addresses. Collection of responses began in February 2021 and closed in March 2021. The survey was open for respondents for a two-week period.

Level of Response From Teachers

One hundred ninety-three teacher volunteers responded to the survey and 93 teacher volunteers completed the survey without incomplete responses. Of the 93 who completed the survey, 13 were unusable due to answering “No” to the question that determined if the teacher participated in professional development with a participating ESC between August 2020 and January 2021. Therefore, the researcher analyzed the responses from 80 participants. The researcher relied on the superintendents to contact the teachers and subsequently, the number of teachers who were invited to participate is not known. With 80 usable survey responses, the researcher obtained a sufficient number of participants as cited by Cohen (1992) in Cresswell & Guetterman (2019) as: “approximately 70 participants for a correlational study that relates variables” (p. 144).

Professional Demographics

This section describes the sample of teachers who completed the survey. The professional demographic section of the survey consisted of seven questions. Data were collected regarding years of teaching experience; school district typology; grade levels currently teaching; description of the professional development; duration of the professional development; if there was participation in the professional development with

a colleague, and if there was follow up with teachers or administrators regarding the professional development.

Years of Teaching Experience

Table 3 represents respondents’ years of teaching experience. The survey question provided four choices. Most teachers have taught between 16 and 25 years ($n = 38$, 45.0%). In Ohio, school districts report data based on their percentage of teachers in three categories: 0-4 years of experience, 4-10 years of experience, and teachers with 10+ years of experience. For the fiscal year 2020, Ohio districts averaged 20.6% of their teachers as having 0-4 years of teaching experience, 19.3% as having 4-10 years of experience, and 60.1% as having 10 or more years of experience (Ohio Department of Education, 2021). 67.5% of the respondents in the survey have taught for 16 or more years which represents a similar comparison to the state data. National data from the U.S. Department of Education shows that in 2017-2018 school year 9% of teachers had less than 3 years of experience, 28% had 3 to 9 years of experience, 40% had 10 – 20 years of experience, and 23% had over 20 years of experience.

Table 3

Participants’ Years of Teaching Experience

Years of Teaching Experience	n	%
0-5	6	7.5%
6-15	20	25.0%
16-25	36	45.0%
26 or more	18	22.5%

Typology of Participants' School Districts

School districts in Ohio can be classified into one of eight typology categories based on demographic as well as geographic descriptions such as population, median income, and population density (Ohio Department of Education, 2019). The typology codes are organized from the least urban to the most urban; however, community schools and private schools are not included in the typology (Ohio Department of Education, 2019a). In Ohio, with approximately 1,635,000 students, the greatest number of students are categorized in suburban typology 5, low student poverty and average student population size, with 320,000 students (19.57%) (Ohio Department of Education, 2019a). See Table 4 for the number of districts in Ohio within each typology.

Table 4

Traditional School Districts in Ohio: Typology and Percent of Total Student Population

Typology	Districts	%
1 Rural: High Student Poverty & Small Student Population	124	10.4%
2 Rural: Average Student Poverty & Very Small Student Population	107	6.7%
3 Small Town: Low Student Poverty & Small Student Population	111	11.3%
4 Small Town: High Student Poverty & Average Student Population	89	12.2%
5 Suburban: Low Student Poverty & Average Student Population	77	19.6%
6 Suburban: Very Low Student Poverty & Large Student Population	46	14.7%
7 Urban: High Student Poverty & Average Student Population	47	12.8%
8 Urban: Very High Student Poverty & Very Large Student Population	8	12.2%

For this study, many teachers identified their district as suburban or urban. Table 5 shows the typology of the participant’s school districts. Listed as suburban, typology 5 ($n = 24, 30.4\%$) and typology 6 ($n = 10, 12.6\%$) combine to a total of 32.6% of teachers identifying their district as suburban. Many teachers in this study identified their district as urban. Typology 7 ($n = 21, 26.6\%$) and typology 8 ($n = 5, 6.3\%$) combine to a total of 32.9% identifying their district as urban. In Ohio, 25% of all students are enrolled in an urban district and 25% are enrolled in a suburban district. Most teachers in the survey ($n = 60, 75.9\%$) teach students in an urban or suburban setting which is where 50% of Ohio’s students are enrolled.

Table 5

Typology of Participants’ School District

Typology	n	%
1 Rural: High Student Poverty & Small Student Population	2	2.5%
2 Rural: Average Student Poverty & Very Small Student Population	3	3.8%
3 Small Town: Low Student Poverty & Small Student Population	6	7.6%
4 Small Town: High Student Poverty & Average Student Population	3	3.8%
5 Suburban: Low Student Poverty & Average Student Population	24	30.4%
6 Suburban: Very Low Student Poverty & Large Student Population	10	12.6%
7 Urban: High Student Poverty & Average Student Population	21	26.6%
8 Urban: Very High Student Poverty & Very Large Student Population	5	6.3%
Charter, community, or private school	5	6.3%

Participants' Current Grade Level

The teachers selected the grade level(s) they currently teach from one of four choices: Primary (Kindergarten - 2nd grade); Elementary (3rd - 5th grades); Middle (6th - 8th grades); and High School (9th - 12th grades). Table 6 shows the number and percentages of teachers in each category. Most respondents teach Elementary ($n = 26$, 34.2%) or High School ($n = 26$, 34.2%).

Table 6

Participants' Current Grade Level They Teach

Current Teaching Level	n	%
Primary, Grades Kindergarten - 2nd Grade	14	18.0%
Elementary, Grades 3rd - 5th	26	34.2%
Middle, Grades 6th - 8th	10	13.2%
High School, Grades 9th - 12th	26	34.2%

Participants' Professional Development Experience

To learn more about the teachers' professional development experience, the researcher asked four questions. These questions allowed for insight into participants' collaborative efforts with colleagues and the type and duration of professional development. Darling-Hammond et al. (2017) outlined specific features of effective professional development: supports collaboration, offers feedback and reflection, and is of sustained duration. Table 7 shows the type of professional development as determined from participants selecting from three choices for the best description of the professional development in which they participated. The choices included digital tools, instructional

strategies, and social and emotional topics. Descriptions for each are outlined within Table 7. Most teachers participated in professional development related to instructional strategies ($n = 37, 46.8\%$)

Table 7

Type of Professional Development

Professional Development Description	n	%
Digital tools, technological skills, or engagement strategies that integrate technology into students' learning	16	20.3%
Instructional strategies to meet the needs of learners (e.g., differentiated instruction, literacy strategies, math problem solving, formative assessment, strategies for gifted learners, English language learners, etc.)	37	46.8%
Culturally responsive practices, social and emotional learning, trauma-informed practices, social justice topics	26	32.9%

The researcher considered the collaboration of teachers because conversation among teachers who engage in professional development is a critical component of a collaborative school culture (Gruenert & Whitaker, 2015). Dialogue and interaction help to develop connections and understanding (Saphier et al., 2008). One question asked about participation with colleagues from the teacher's school. Responses regarding colleague participation are outlined in Table 8.

Table 8*Participation With a Colleague*

Participated with a Colleague from Their School	n	%
Yes	56	70.0%
No	24	30.0

The researcher outlined the level of follow up and collaboration using three options for a response to the question regarding how teachers interacted with others at their school following the professional development. The responses and results are outlined in Table 9. Most teachers participated in professional development with a colleague from their school ($n = 56, 70.0\%$) and most teachers answered yes to discussion or collaboration with other teachers or school leaders ($n = 43, 53.8\%$)

Table 9*Participants' Level of Follow Up After Professional Development*

Description of Follow Up with Teachers or Administrators	n	%
No, I did not collaborate or discuss the content of the professional development with teachers or leaders from my school or district.	37	46.2%
Yes, after the ESC professional development, I discussed the content with teachers and/or leaders from my school or district.	30	37.5%
Yes, after the ESC professional development, I discussed the content and collaborated with teachers and/or leaders in a follow-up session established by school or district leadership.	13	16.3%

Sustained professional development allows opportunities for reflection (Darling-Hammond, 2017; Reeves, 2010). When the professional development is offered overtime with a sustained duration, teachers are more likely to apply their learning (Reeves, 2010). Table 10 outlines the duration of the professional development. Most participating teachers attended two or more sessions of professional development ($n=52$, 65.0%).

Table 10

Duration of the Professional Development

Duration	n	%
An isolated event: one session	28	35.0%
Included two or more sessions	52	65.0%

Teachers' Motivation to Integrate Professional Development

An Expectancy-Value-Cost Scale in Professional Development (EVC-PD) (Osman & Warner, 2020) was used to quantify teachers' motivation to implement professional development. The researcher used the composite score from the nine questions to determine the quantitative measure of teachers' motivation. The nine items utilize a 6-point Likert-style scale (1: Strongly Disagree, 2: Disagree, 3: Slightly Disagree, 4: Slightly Agree, 5: Agree, 6: Strongly Agree). Three subscales: expectancy, value, and cost were calculated separately. Expectancy related to teachers' self-efficacy and their belief that they can be successful in a situation; this correlated with their willingness to overcome any challenges of implementing professional development (Osman & Warner, 2020). Task values measured teachers' subjective evaluation of a task's importance (Osman & Warner, 2020). Cost considered what teachers sacrifice in

order to implement new practices learned in professional development (Osman & Warner, 2020). For the three subcategories of the EVC-PD were determined as follows:

- *Expectancy* subscore was calculated by summing the individual scores of items #1-3 from the EVC-PD scale.
- *Value* subscore was calculated by summing the individual scores of items #4-6 from the EVC-PD scale.
- *Cost (reverse scored)* items #7-9 were reverse scored to allow a high score to represent a higher motivation to implement the professional development and then the subscore was calculated by summing the individual scores.

The higher the score on the Expectancy and Value subscales, the more motivated the teacher will be to implement the professional development. A high cost subscore indicates that the teacher perceives the cost of implementing the professional development as high. However, the researcher reverse coded the cost subscale to allow the higher means for all three subscores to represent a higher motivation. The composite score was obtained by first finding the sum of the individual scores from all nine items on the EVC-PD scale and then calculating the mean. Table 11 shows the EVC-PD composite score and subtotals for the subscales.

Table 11

Descriptive Statistics for the Expectancy Value Cost for Professional Development Scale

(Osman & Warner, 2020)

EVC-PD Score	<i>n</i>	<i>M (SD)</i>	Range
Composite	80	44.1 (5.7)	30-54
Expectancy	80	15.0 (1.9)	10-18
Value	80	15.0 (2.4)	5-18
Cost	80	14.1 (2.7)	7-18

School Culture Survey

The School Culture Survey (SCS) provides data about six cultural factors based on the perception of the school staff: 1) Collaborative Leadership, 2) Teacher Collaboration, 3) Professional Development, 4) Collegial Support, 5) Unity of Purpose, and 6) Learning Partnership (Valentine, 2006). Collaborative leadership indicates the degree to which school leaders maintain collaborative relationships with staff (Gruenert & Valentine, 1998). Components of teacher collaboration measure the extent to which teachers interact with colleagues to support the school's vision (Gruenert & Valentine, 1998). Professional development indicates the degree to which teachers value their own personal growth as well as school-wide improvement efforts (Gruenert & Valentine, 1998). Collegial support indicates the extent to which teachers trust and value each other and work effectively together (Gruenert & Valentine, 1998). Unity of purpose measures the degree to which teachers collaborate to reach the school's mission (Gruenert & Valentine, 1998). Learning partnership measures the degree to which teachers, parents, and students accept responsibility and maintain focus on what is best for the student

(Gruenert & Valentine, 1998). The SCS measures the collaborative nature of a school staff to get a sense of the existence of trust, supportive relationships, and a mission to promote student learning and teachers' professional learning (Gruenert & Whitaker, 2015). Based on the authors' recommendation, each factor of school culture was calculated separately without the use of a composite score. Table 12 shows the mean for each factor of school culture.

Table 12

Descriptive Statistics for the School Culture Survey (Gruenert & Valentine, 1998)

School Culture Factors	<i>n</i>	<i>M (SD)</i>	Range
Collaborative Leadership	80	3.5 (.7)	1.4 - 5.0
Teacher Collaboration	80	3.0 (.7)	1.0 - 5.0
Professional Development	80	3.7 (.6)	2.0 - 5.0
Collegial Support	80	3.8 (.5)	2.5 - 5.0
Unity of Purpose	80	3.7 (.5)	2.4 - 5.0
Learning Partnership	80	3.5 (.5)	2.3 - 4.5

Correlations of EVC-PD and School Culture Factors

The researcher sought to determine the relationship between teachers' perception of their school culture and their motivation to implement professional development. The relationship between the six school culture factors was correlated with the teachers' composite score on the Expectancy Value Cost- Professional Development (EVC-PD) scale. A higher score on the EVC-PD scale indicates a greater likelihood that the teacher

is motivated to implement the professional development into their classroom practice. The researcher analyzed the results to determine which of the six factors of professional development were associated with an increase or decrease in their EVC-PD score. The researcher used regression analysis to understand the relationship between the independent variables (school culture factors) and the dependent variable (EVC-PD composite score). Using SPSS, the researcher conducted a bivariate correlation to determine Pearson's product-moment (r) which quantitatively expresses the strength and direction of the relationship between two variables with a numeric value that ranges between -1.00 and +1.00 with 0 indicating no relationship (Field, 2018). The bivariate correlation also determined the significance values (p) which explains the statistical significance at a specific level of significance such as $p < 0.05$ (Creswell & Guetermann, 2019). Specific details for each school culture factor and the EVC-PD composite score are outlined in Table 13.

Table 13*Partial Correlation Coefficients and Significance of Correlations Between School**Culture Factors and EVC-PD*

		1	2	3	4	5	6	7
1. EVC-PD	<i>r</i>	1	.252*	-.004	.153	.234*	.224*	.123
Composite	<i>p</i>		.024	.969	.177	.036	.046	.276
2. Collaborative Leadership	<i>r</i>	.252*	1	.667**	.533**	.349**	.401**	.204
	<i>p</i>	.024		< .001	< .001	.002	< .001	.069
3. Teacher Collaboration	<i>r</i>	-.004	.667**	1	.656**	.461**	.546**	.174
	<i>p</i>	.969	< .001		< .001	< .001	< .001	.122
4. Professional Development	<i>r</i>	.153	.533**	.656**	1	.450**	.564	.200
	<i>p</i>	.177	< .001	< .001		< .001	< .001	.075
5. Unity of Purpose	<i>r</i>	.234*	.349**	.461**	.450**	1	.451**	.305**
	<i>p</i>	.036	< .001	< .001	< .001		< .001	.006
6. Collegial Support	<i>r</i>	.224*	.401**	.546**	.564**	.451**	1	.415**
	<i>p</i>	.046	< .001	< .001	< .001	< .001		< .001
7. Learning Partnership	<i>r</i>	.123	.204	.174	.200	.395**	.415**	1
	<i>p</i>	.276	.069	.122	.075	.006	< .001	

Note. *= $p < .05$, **= $p < .01$
 $n = 80$ for all correlations

Analysis of the Research Questions

To determine a relationship between school climate and teachers' motivation to integrate professional development, the researcher examined teachers' rating of their school climate factors and their rating of their motivation to integrate professional development (EVC-PD motivation composite score).

Research Question 1: Is there a relationship between teachers' ratings of their school culture factors (collaborative leadership, teacher collaboration, unity of purpose, professional development, collegial support, and learning partnership) and their motivation to integrate professional development into practice?

Hypothesis 1: The ratings on the school climate survey factors will have a predictable association and a positive correlation on the scores on the EVC-PD motivation scale.

A Pearson product-moment correlation coefficient was conducted and showed there is a relationship between the six factors of school culture and teachers' motivation to implement professional development as indicated by the EVC-PD motivation scale. There was evidence to suggest that five out of the six factors of school culture show a positive association with the EVC-PD scale. The following factors show a positive direction when considering the relationship between the factor and the EVC-PD composite motivation score: collaborative leadership ($r = .252$), professional development ($r = .153$), unity of purpose ($r = .234$), collegial support ($r = .224$), and learning partnership ($r = .127$). Three out of the six factors show a statistically significant, positive association. Collaborative Leadership ($p = 0.024$), Unity of Purpose

($p = 0.036$), and Collegial Support ($p = 0.046$) demonstrated statistical significance where $p < 0.05$.

There is a positive association between collaborative leadership ($M = 3.5$, $SD = .5$) and the EVC-PD composite score ($M = 44.1$, $SD = 5.7$), $r(80) = .252$, $p < .024$. Higher levels of collaborative leadership are associated with higher levels of teachers' motivation to implement professional development according to the EVC-PD composite score. There is a positive association between unity of purpose ($M = 3.8$, $SD = .5$) and the EVC-PD composite score ($M = 44.1$, $SD = 5.7$), $r(80) = .234$, $p < .036$. Higher levels of unity of purpose are associated with higher levels of teachers' motivation to implement professional development according to the EVC-PD composite score. There was a positive association between collegial support ($M = 3.7$, $SD = .5$) and the EVC-PD composite score ($M = 44.1$, $SD = 5.7$), $r(80) = .224$, $p < .046$. Higher levels of collegial support are associated with higher levels of teachers' motivation to implement professional development according to the EVC-PD composite score. Hypothesis 1 was supported because most of the ratings on the school climate survey factors demonstrated a predictable association and a positive correlation on the scores on the EVC-PD scale.

To further understand the relationship between school culture and teachers' motivation to implement professional development, the researcher conducted a linear regression. The researcher calculated the R-Square value using a linear regression to understand the amount of variance in the dependent variable that is explained by the independent variables (Field, 2018). A linear regression was calculated to predict the composite score of the EVC-PD based on the factors of the School Culture Survey. Results show a statistically significant effect on the EVC-PD composite score ($F(6,73) =$

3.407), $p < .005$), with $R^2 = 0.219$, suggesting that 21.9% of the variation is predicted by the listed factors.

The researcher calculated regression coefficients for each variable. A regression table shows the beta weight for each predictor variable. A beta weight, a coefficient that indicates the magnitude of prediction after removing the effects of other predictors, indicates the strength of the relationship of the predictor variable (Creswell & Guetermann, 2019). The researcher also indicated the correlation of the combination of variables (R) and the coefficient of determination (R^2) which identified the proportion of variability explained by the independent variables in the dependent variable (Creswell & Guetermann, 2019). Table 14 and table 15 show the regression coefficients for each school culture factor.

Table 14*Coefficients of Determination and Percent Variability Between the School Culture**Factors and the EVC-PD Scale*

Factor		
Collaborative Leadership	r^2	.064
	%	6.4%
Teacher Collaboration	r^2	.000
	%	0%
Professional Development	r^2	.023
	%	2.3%
Unity of Purpose	r^2	.055
	%	5.5%
Collegial Support	r^2	.050
	%	5.0%
Learning Partnership	r^2	.015
	%	1.5%

Note. $n = 80$ for all correlations

Table 15

Regression Analysis Summary for Factors of School Culture Predicting Teachers' Motivation to Implement Professional Development

Variable	<i>B</i>	β	<i>t</i>	<i>p</i>
Collaborative Leadership	3.596	.424	2.991	.004*
Teacher Collaboration	-4.546	-.554	-3.335	.001*
Professional Development	.659	.066	.442	.660
Unity of Purpose	2.413	.218	1.753	.084
Collegial Support	2.539	.241	1.694	.094
Learning Partnership	-.498	-.046	-.398	.692

Note. $R = .468$

$R^2 = .219$

* = $p < .05$

$n = 80$ for all correlations

Effect of Control Variables

The researcher investigated factors that influence teachers' implementation of practices learned during professional development to determine the effect of control variables. The control variables provided information about teachers' demographics and their professional development experience.

Research Question 2: What effect do control variables, such as number of years teaching, participation with a colleague, and duration of professional development have on teachers' motivation to integrate professional development into practice?

Hypothesis 2: Those teachers who have a colleague who participates with them in the professional development will have higher ratings on the EVC-PD scale than those teachers who participate without someone from their school.

A linear regression was calculated to predict the composite score of the EVC-PD based on the control variables outlined in the professional demographic survey questions. The researcher tested for association between each of the seven variables. Hypothesis 2 focused on the participation of colleagues. Results did not generate a statistically significant effect on the EVC-PD composite score ($F(1,78) = .394$), $p > .005$, with $R^2 = 0.005$, suggesting that only 0.5% of the variation is predicted by participation with a colleague. The mean for EVC-PD showed an .875 increase for those who participated with a colleague as compared to those who did not participate with a colleague. This small increase is not practically significant when considering an impact between the two groups (participating with or without a colleague).

The survey question asked participants to select from two choices to the question about participation in the professional development with a colleague(s) from their school. A linear regression was calculated to predict teacher's motivation to implement professional development based on a yes or no response to teachers' participating in professional development with a colleague. A regression equation was found ($F(1,78) = .394$), $p < .532$, with an R^2 of .005. Table 16 shows the mean scores for those who participated with a colleague ($M = 44.4$) and those who did not have a colleague participate with them ($M = 43.5$). Hypothesis 2 was not supported as those who participated with a colleague did not have a statistically significant higher rating on the EVC-PD motivation score.

Table 16

Mean Scores of EVC-PD for Participation in Professional Development With a Colleague

Variable	n	%	Mean	SD
All Survey Respondents	80	100%	44.1	
Participated with a Colleague ($r^2 = .005$)				
Yes	56	70.0%	44.4	5.6
No	24	30.9%	43.5	5.8

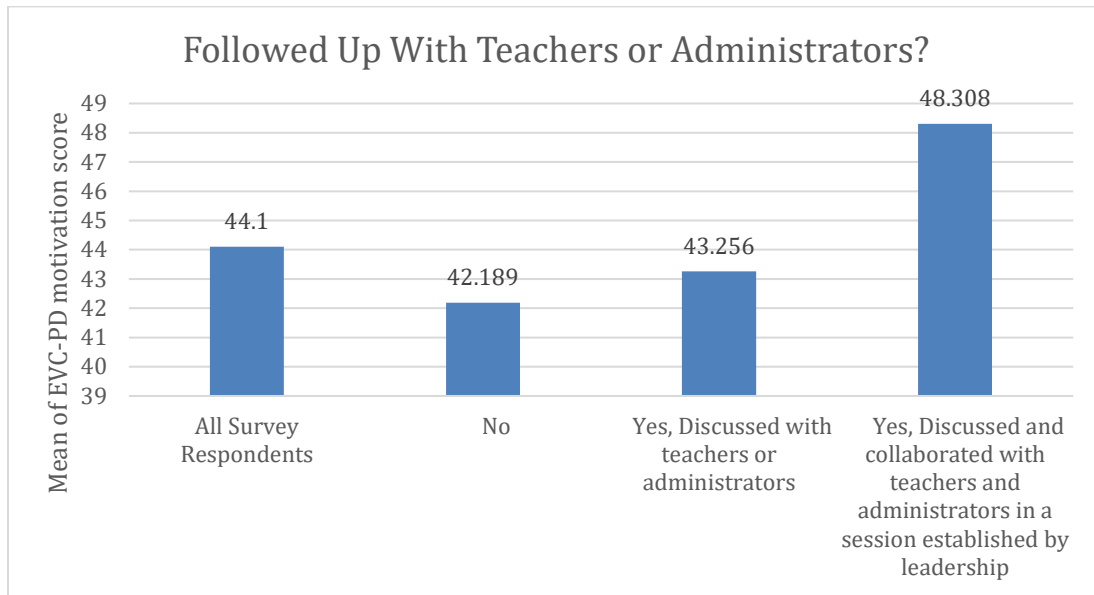
Hypothesis 3: The level of follow up pertaining to the professional development will have a predictable association and a positive correlation on the scores on the EVC-PD scale.

A linear regression was calculated to predict the composite score of the EVC-PD based on the control variables outlined in the professional demographic survey questions. The researcher tested for association between each of the seven variables. Hypothesis 3 focused on the follow-up that occurred after the professional development. Results did generate a statistically significant effect on the EVC-PD composite score ($F(2,77) = 6.611$), $p < .005$), with $R^2 = 0.147$, suggesting that 14.7% of the variation is predicted by the factors associated with follow up. The graph in Figure 4 shows the mean of the EVC-PD motivation scores when teachers participated in different variations of follow up after the professional development. Table 17 shows the number of respondents for each level of follow up and the corresponding mean on the EVC-PD motivation scale. Hypothesis 3 was supported as those who followed up with teachers and/or leaders in a session

established by the leadership had higher ratings on the EVC-PD composite score indicating more motivation to implement the professional learning.

Figure 4

Mean Scores on the EVC-PD Compared to Levels of Follow Up



Note. Mean scores on the EVC-PD motivation scale calculated for teachers' level of follow up after the professional development.

Table 17

Mean Scores of EVC-PD for Follow Up in Professional Development With a Colleague

Variable	n	%	Mean	SD
All Survey Respondents	80	100%	44.1	
No	37	46.2%	42.1	4.9
Yes, Discussed with Teachers or Administrators	30	37.5%	43.2	6.3
Yes, Discussed and Collaborated with Teachers and Administrators	13	16.3%	48.3	3.6

Control Variables

The researcher sought to determine if any control variables influenced the results of the EVC-PD motivation score. The researcher considered the relationship between seven different control variables and teachers' motivation to implement professional development into their classroom practice. The researcher tested for association between each of the seven variables (district typology, school level, years of teaching, participation with a colleague, duration of the professional development, follow up after the professional development, and the description of the professional development). The coefficient of determination shows association of the variable to the outcome variable, the EVC-PD motivation score. Field (2018) explained that the R^2 , also called the coefficient of determination, indicates the percent of variation in the outcome, and studies with social sciences, most R^2 values indicate variances less than 50% due to the unpredictability of human behavior. In a The researcher included the F-statistic (F) in the analysis to discriminate between the groups; the F-value indicates whether the group means are significant. The larger the F-value, then the larger the variance between the group means (Field, 2018). Table 18 shows the coefficients of determination with the percentage of variability explained by the control variables in the dependent variable, the F-statistic, and Pearson's product moment measure of statistical significance.

Table 18*Regression Analysis Summary for Control Variables Predicting Teachers' Motivation to Implement Professional Development*

Factor	r^2	%	F	p
Follow Up after Professional Development	.147	14.7%	6.611	.002*
District Typology	.102	10.2%	1.012	.435
Years of Teaching	.053	5.3%	1.413	.246
Type of Professional Development	.040	4.0%	2.650	.077
Duration of Professional Development	.022	2.2%	1.771	.187
School/Grade-Level	.018	1.8%	.464	.708
Participate with a Colleague	.005	.5%	.394	.532

Note. $n = 80$

A linear regression was calculated to predict teacher's motivation to implement professional development based on their follow up after professional development. A significant regression equation was found ($F(2,77) = 6.611, p < .002$, with an R^2 of .147). The researcher used a 0.05 level of significance for the correlational statistical significance. Follow up after professional development was the only control variable to indicate a statistical significance.

The researcher conducted a post hoc test on the control variables to compare the various groups in the control variables. The Tukey post hoc test was used to compare each group to other groups. It compared the group of teachers who did not follow up with anyone at their school to the group of teachers who followed up and to the group of teachers that collaborated in a follow-up session established by leadership. Post hoc

comparisons using the Tukey HSD test indicated that the mean score of the group that answered, “yes, after the professional development, I discussed the content and collaborated with teachers and/or leaders in a follow-up session established by school or district leadership” ($M = 48.308$, $SD = 3.614$) was significantly different from those who did not follow up in a discussion with teacher or leaders from their school ($M = 42.189$, $SD = 4.915$). However, the response that indicated a yes to discussion but without being established by leadership, “yes, after the ESC professional development, I discussed the content with teachers and/or leaders from my school” ($M = 44.667$, $SD = 6.315$) did not significantly differ from the “no follow-up” group and the “yes, with a session” group. Taken together, these results suggest that following up with teachers or leaders after a professional development does have an effect on teachers’ motivation to implement professional development. Specifically, the results suggest that when teachers collaborate and discuss the content of the professional development with teachers or leaders from their school in a session established by school or district leadership, they are more motivated to implement professional development. Simply talking about the content does not appear to significantly increase teachers’ motivation to implement professional development. Tables 19 and 20 show the mean scores and their comparison means using Tukey’s HSD.

Table 19*Mean Scores of EVC-PD Motivation Score With Follow-Up Variable*

Variable	n	Mean	SD
All Survey Respondents	80	44.1	5.7
Followed Up with Teachers or Administrators ($r^2 = .147$)			
No	37	42.1	4.91
Yes, Discussed with Teachers or Administrators	30	43.2	6.31
Yes, Discussed and Collaborated with Teachers and Administrators	13	48.3	3.61

Table 20*Mean Differences of Post hoc Comparisons Using Tukey's HSD for Follow-Up Variable*

	1	2	3
1. No, did not follow up	1		
2. Yes, discussed	-2.477	1	
3. Yes, discussed and collaborated	-6.118*	-3.641	1

Note. * shows the mean difference is significant, $p < .05$, $n = 80$ for all comparisons

The researcher conducted post hoc comparisons using Tukey's HSD for all control variables to analyze the variances within the groups for each variable as related to the average score on the EVC-PD motivation score. While the remaining control variables did not demonstrate a statistically significant relationship toward teachers' motivation to implement professional development, they are worth noting here. Their lack of significance adds to the relevance of the question regarding following up at the school. There is no other control variable that suggests an association with an increase in

teachers' motivation to implement professional development. Table 21 and Table 22 show the mean comparisons for each group using Tukey's post hoc procedure in SPSS. Mean scores for each district typology category did not significantly differ from the mean composite score or from each other.

Table 21

Mean Scores of EVC-PD Motivation Score With District Typology

Variable	n	Mean	SD
All Survey Respondents	80	44.1	5.7
District Typology ($r^2 = .102$)			
1 Rural: High Student Poverty & Small Student Population	2	47.5	2.1
2 Rural: Average Student Poverty & Very Small Student Population	3	42.0	4.0
3 Small Town: Low Student Poverty & Small Student Population	6	43.3	8.2
4 Small Town: High Student Poverty & Average Student Population	3	40.6	1.5
5 Suburban: Low Student Poverty & Average Student Population	24	44.5	6.0
6 Suburban: Very Low Student Poverty & Large Student Population	10	40.7	4.4
7 Urban: High Student Poverty & Average Student Population	21	44.8	5.7
8 Urban: Very High Student Poverty & Very Large Student Population	5	44.6	6.3
Charter, Community, or Private School	5	47.2	3.8

Table 22*Mean Differences of Post hoc Comparisons Using Tukey's HSD for Follow-Up Variable*

	1	2	3	4	5	6	7	8	9
1	1								
2	-5.5	1							
3	-4.1	1.3	1						
4	-6.8	-1.3	-2.6	1					
5	-2.9	2.5	1.2	3.9	1				
6	-6.8	-1.3	-2.6	.0	-3.8	1			
7	-2.6	2.8	1.5	4.1	.2	4.1	1		
8	-2.9	2.6	1.2	3.9	.0	3.9	-.2	1	
9	-.3	5.2	3.8	6.5	2.6	6.5	2.3	2.6	1

Note. No comparison scores show significance at the $p < .05$ level.

The researcher considered if years of teaching would impact teachers' motivation to implement professional development. Table 23 and Table 24 show the mean comparisons for each group using Tukey's post hoc procedure in SPSS. Mean scores for each category did not significantly differ from the mean composite score or from each other. The mean of the EVC-PD motivation score for teachers who taught 5 years or less ($M = 47.3$) was the highest average EVC-PD score, with the lowest variation ($SD = 2.4$), but it was not statistically different when compared with the other groups. The mean of the EVC-PD motivation score for teachers who taught 26 years or more ($M = 42.5$) was the lowest average EVC-PD score with the highest variation ($SD = 6.2$) when compared with the other groups.

Table 23*Mean Scores of EVC-PD Motivation Score With Years of Teaching*

Variable	n	Mean	SD
All Survey Respondents	80	44.1	5.7
Years of Teaching ($r^2 = .053$)			
1-5 years	6	47.3	2.4
6-15 years	20	43.4	5.9
16-25 years	36	44.7	5.4
26 or more years	18	42.5	6.2

Table 24*Mean Differences of Post hoc Comparisons Using Tukey's HSD for Years of Teaching*

	1	2	3	4
1 – 5 years	1			
6 – 15 years	-3.9	1		
16-25 years	-2.5	1.3	1	
26 or more years	-4.8	-.9	-2.2	1

Note. No comparison scores show significance at the $p < .05$ level.

The researcher asked participants to select from three choices to best describe the type of professional development they attended. The three general categories were digital tools, instructional strategies, and culturally response or social and emotional learning. The explanation for the first option indicated digital tools, technological skills, or engagement strategies that integrate technology into students' learning. The second choice described instructional strategies as those strategies to meet the needs of learners

(e.g., differentiated instruction, literacy strategies, math problem solving, formative assessment, strategies for gifted students, English language learners, etc.) The final choice indicated culturally responsive practices, social and emotional learning, trauma-informed practices, social justice topics. The survey participants participated in professional development between August 2020 and January 2021. Teachers who participated in the digital tools professional development ($M = 46.7$, $SD = 6.1$) have a slightly higher average EVC-PD motivation score than those who participated in social and emotional learning strategies ($M = 44.0$, $SD = 5.4$) and instructional strategies ($M = 42.9$, $SD = 5.4$). Table 25 and Table 26 show the mean comparisons for each group using Tukey’s post hoc procedure in SPSS. Mean scores for each category did not significantly differ from the mean composite score or from each other.

Table 25

Mean Scores of EVC-PD Motivation Score With Years of Teaching

Variable	n	Mean	SD
All Survey Respondents	80	44.1	5.7
Type of Professional Development ($r^2 = .053$)			
Digital Tools, Technological Strategies	16	46.7	6.1
Instructional Strategies	37	42.9	5.4
Culturally Responsive or Social and Emotional Learning	26	44.0	5.4

Table 26

Mean Differences of Post hoc Comparisons Using Tukey's HSD for Type of Professional Development

	1	2	3
1. Digital	1		
2. Instructional Strategies	-3.3	1	
3. Social Emotional Learning	-2.6	1.1	1

Note. No comparison scores show significance at the $p < .05$ level.

The researcher conducted post hoc comparisons using Tukey's HSD for all control variables to analyze the variances within the groups for each variable as related to the average score on the EVC-PD motivation score. While the remaining control variables did not demonstrate a statistically significant relationship toward teachers' motivation to implement professional development, they are worth noting here. Their lack of significance adds to the relevance of the question regarding following up at the school. There is no other control variable that suggests an association with an increase in teachers' motivation to implement professional development. Table 27 and Table 28 show the mean comparisons for each group using Tukey's post hoc procedure in SPSS. Mean scores for each district typology category did not significantly differ from the mean composite score or from each other.

Table 27*Mean Scores of EVC-PD Motivation Score With District Typology*

Variable	n	Mean	SD
All Survey Respondents	80	44.1	5.7
District Typology ($r^2 = .102$)			
1 Rural: High Student Poverty & Small Student Population	2	47.5	2.1
2 Rural: Average Student Poverty & Very Small Student Population	3	42.0	4.0
3 Small Town: Low Student Poverty & Small Student Population	6	43.3	8.2
4 Small Town: High Student Poverty & Average Student Population	3	40.6	1.5
5 Suburban: Low Student Poverty & Average Student Population	24	44.5	6.0
6 Suburban: Very Low Student Poverty & Large Student Population	10	40.7	4.4
7 Urban: High Student Poverty & Average Student Population	21	44.8	5.7
8 Urban: Very High Student Poverty & Very Large Student Population	5	44.6	6.3
Charter, Community, or Private School	5	47.2	3.8

Table 28*Mean Differences of Post hoc Comparisons Using Tukey's HSD for District Typology*

	1	2	3	4	5	6	7	8	9
1	1								
2	-5.5	1							
3	-4.1	1.3	1						
4	-6.8	-1.3	-2.6	1					
5	-2.9	2.5	1.2	3.9	1				
6	-6.8	-1.3	-2.6	.0	-3.8	1			
7	-2.6	2.8	1.5	4.1	.2	4.1	1		
8	-2.9	2.6	1.2	3.9	.0	3.9	-.2	1	
9	-.3	5.2	3.8	6.5	2.6	6.5	2.3	2.6	1

Note. No comparison scores show significance at the $p < .05$ level.

The researcher considered if years of teaching would impact teachers' motivation to implement professional development. Table 29 and Table 30 show the mean comparisons for each group using Tukey's post hoc procedure in SPSS. Mean scores for each category did not significantly differ from the mean composite score or from each other. The mean of the EVC-PD motivation score for teachers who taught 5 years or less ($M = 47.3$) was the highest average EVC-PD score, with the lowest variation ($SD = 2.4$), but it was not statistically different when compared with the other groups. The mean of the EVC-PD motivation score for teachers who taught 26 years or more ($M = 42.5$) was the lowest average EVC-PD score with the highest variation ($SD = 6.2$) when compared with the other groups.

Table 29*Mean Scores of EVC-PD Motivation Score With Years of Teaching*

Variable	n	Mean	SD
All Survey Respondents	80	44.1	5.7
Years of Teaching ($r^2 = .053$)			
1-5 years	6	47.3	2.4
6-15 years	20	43.4	5.9
16-25 years	36	44.7	5.4
26 or more years	18	42.5	6.2

Table 30*Mean Differences of Post hoc Comparisons Using Tukey's HSD for Years of Teaching*

	1	2	3	4
1 – 5 years	1			
6 – 15 years	-3.9	1		
16-25 years	-2.5	1.3	1	
26 or more years	-4.8	-.9	-2.2	1

Note. No comparison scores show significance at the $p < .05$ level.

The researcher asked participants to select from three choices to best describe the type of professional development they attended. The three general categories were digital tools, instructional strategies, and culturally response or social and emotional learning. The explanation for the first option indicated digital tools, technological skills, or engagement strategies that integrate technology into students learning. The second choice described instructional strategies as those strategies to meet the needs of learners (e.g., differentiated instruction, literacy strategies, math problem solving, formative

assessment, strategies for gifted students, English language learners, etc.) The final choice indicated culturally responsive practices, social and emotional learning, trauma-informed practices, social justice topics. The survey participants participated in professional development between August 2020 and January 2021. Teachers who participated in the digital tools professional development (M = 46.7, SD = 6.1) have a slightly higher average EVC-PD motivation score than those who participated in social and emotional learning strategies (M = 44.0, SD = 5.4) and instructional strategies (M = 42.9, SD = 5.4). Table 31 and Table 32 show the mean comparisons for each group using Tukey’s post hoc procedure in SPSS. Mean scores for each category did not significantly differ from the mean composite score or from each other.

Table 31

Mean Scores of EVC-PD Motivation Score With Type of Professional Development

Variable	N	Mean	SD
All Survey Respondents	80	44.1	5.7
Type of Professional Development ($r^2 = .053$)			
Digital Tools, Technological Strategies	16	46.7	6.1
Instructional Strategies	37	42.9	5.4
Culturally Responsive or Social and Emotional Learning	26	44.0	5.4

Table 32

Mean Differences of Post hoc Comparisons using Tukey's HSD for Type of Professional Development

	1	2	3
1. Digital	1		
2. Instructional Strategies	-3.3	1	
3. Social Emotional Learning	-2.6	1.1	1

Note. No comparison scores show significance at the $p < .05$ level.

The researcher analyzed the results that indicated the duration of the professional development. Darling-Hammond et al. (2017) outlined specific features of effective professional development which included that it is of a sustained duration to allow for feedback and reflection. The participants selected from two options: an isolated event or included two or more sessions. Those participants who engaged in professional development that included two or more sessions ($M = 44.7$, $SD = 5.4$) have an average mean score that is slightly higher than those who participated in an isolated event ($M = 42.9$, $SD = 5.4$). Table 33 shows the mean comparisons. Mean scores for each category did not significantly differ from the mean composite score or from each other.

Table 33

Mean Scores of EVC-PD Motivation Score With Duration of Professional Development

Variable	N	Mean	SD
All Survey Respondents	80	44.1	5.7
Duration of Professional Development ($r^2 = .010$)			
An isolated event	16	42.9	5.4
Included two or more sessions	26	44.7	5.7

The researcher considered the current grade levels that the participants taught by asking for them to identify their school level. The question had four choices: primary grades (kindergarten – 2nd grade); elementary (3rd – 5th grades); middle (6th – 8th grades); and high (9th – 12th grades). The range of mean scores for the various grade levels was minimal. Table 34 and Table 35 show the mean comparisons for each group using Tukey’s post hoc procedure in SPSS. Mean scores for each district typology category did not significantly differ from the mean composite score or from each other.

Table 34

Mean Scores of EVC-PD Motivation Score With Grade Level

Variable	n	Mean	SD
All Survey Respondents	80	44.1	5.7
Grade Level ($r^2 = .018$)			
Primary	14	43.2	6.0
Elementary	26	43.7	4.3
Middle	10	44.8	6.3
High	26	45.0	26

Table 35

Mean Differences of Post hoc Comparisons Using Tukey’s HSD for Grade Level

	1	2	3	4
1	1			
2	.48	1		
3	1.5	1.0	1	
4	1.7	1.2	.2	1

Note. No comparison scores show significance at the $p < .05$ level.

Summary of Findings

A Pearson product-moment correlation coefficient was conducted and showed there is a positive relationship between the factors of school culture and teachers' motivation to implement professional development. There is evidence to suggest that five out of the six factors of school culture show a positive association with the EVC-PD scale and three out of the six show a statistically significant positive association. Collaborative Leadership ($p = 0.024$), Unity of Purpose ($p = 0.036$), and Collegial Support ($p = 0.046$) demonstrated statistical significance where $p < 0.05$.

A linear regression was calculated to predict the composite score of the EVC-PD based on the factors of the School Culture Survey. Results show a statistically significant effect on the EVC-PD composite score ($F(6,73) = 3.407$), $p < .005$, with $R^2 = 0.219$, suggesting that 21.9% of the variation is predicted by factors of school culture.

A linear regression was calculated to predict the composite score of the EVC-PD based on the control variables outlined in the professional demographic survey questions. The researcher tested for association between each of the seven variables. The control variable that measured teachers' follow up that occurred after the professional development generated a statistically significant effect on the EVC-PD composite score ($F(2,77) = 6.611$), $p < .002$, with $R^2 = 0.147$, suggesting that 14.7% of the variation is predicted by the factors associated with follow up. The mean score for EVC-PD showed a 6.119 increase for those who followed up by discussing content with teachers and/or leaders in a session established by leadership as compared to those who did not follow up.

CHAPTER V

DISCUSSION

This correlational study sought to determine if a relationship exists between teachers' perceptions of their school culture and their motivation to integrate professional development into their classroom practices. This study provided further insight into the impact that the components of school culture such as collaborative leadership, unity of purpose, and collegial support have on teachers' motivation to implement professional development. The results of this study support how the constructs of leadership and components of school culture interact within the school environment to impact teachers' direct influence on student success (Hattie, 2015; Maxwell et al., 2017, McCarley et al., 2016). School leaders can positively impact teachers' practices which directly affect students' learning (DuFour & Marzano, 2011).

School leader support serves as a predictor of the sustainability and benefits of school improvement efforts (Fullan, 2011). Understanding the interconnectedness of culture and teachers' professional learning will allow the school leader to provide critical support to teachers that resonates on many levels. Schein's (2010) layers of cultural awareness outline how beliefs, values, and artifacts encompass the culture of an organization. Leaders' embedded mechanisms that include what they pay attention to, how they react, and what they measure and reward communicate what they value and serve as key roles in establishing school culture (Schein, 2010). This study outlines the pathway through the many layers of a school's culture and the multifaceted construct of teachers' motivation to implement professional development. Leadership has the potential to be a catalyst for change in teacher practice (Hallinger et al., 2016).

The findings of this study promote school leaders' understanding of what motivates teachers to implement practices to improve student outcomes. School leaders should focus their attention on enhancing a collaborative culture with a shared vision focused on student learning (Dufour & Marzano, 2011; Marzano et al., 2005; Yukl, 2012). Investing time and energy into building relationships and establishing collaborative systems brings stakeholders together and promotes the accomplishment of shared goals that help keep the school directed toward the school's vision and mission.

This chapter includes a summary of the findings of the study, limitations, discussion, recommendations for practice, recommendations for future research, and conclusion. The researcher connects the summary of findings to the literature review and theoretical framework. The discussion section explains the significance of the study and how it relates to broader populations. The researcher provides practical implications for school leaders and considerations for future research. Finally, the researcher synthesizes the results, significance, and implications.

Summary of Findings

The results of the study are outlined in this section. The section is organized into the presentation of the characteristics of the respondents and findings related to the research questions.

The target population for this study included teachers in Northeast Ohio who participated in professional development delivered by an Educational Service Center. The sample consisted of 80 teachers who completed the survey. The researcher collected data from an instrument to measure their motivation to implement professional development, an instrument to measure school culture, demographic questions, and questions about

their professional development experience. The teachers quantified their motivation to implement the professional development by answering questions on the Expectancy Value Cost: Professional Development (EVC-PD) survey (Osman & Warner, 2020). Respondents completed the School Culture Survey (Gruenert & Valentine, 1998) to quantify their perceptions of their school culture.

Based on the authors' recommendation, each factor of school culture was calculated separately and compared to the total motivation score of the EVC-PD survey (Osman & Warner, 2020). Researchers have associated teachers' desire to apply learning from professional development with actual changes in their practice (Abrami et al., 2005; Emo, 2015; Foley, 2011; Gaines et al., 2019; Turner et al., 2009). Their motivation after participation in professional development plays a critical role in teachers' implementation of the new learning (Osman & Warner, 2020). The EVC-PD scale, a reliable tool, quantitatively defines teachers' expectations for successful implementation of new learning, the value of the learning, and the perceived costs of implementing (Osman & Warner, 2020). Descriptive statistics were summarized along with the results of the linear regressions that examine the relationship between the factors of school culture and the composite score of the EVC-PD.

Professional development has been shown to improve teachers' pedagogical skills and content expertise and has been correlated with improved student outcomes (Rotermund et al., 2017). However, results of professional development often show mixed evidence due to the unique nature of adult learners. Teachers' diverse background knowledge, professional experiences, and expectations contribute to varied reactions to professional development (Gegenfurtner, 2011; Opfer & Pedder, 2011; Osman &

Warner, 2020). Learning is a personal process for adults because of their accumulated life experiences (Issah, 2020; Knowles et al., 2005).

Ohio's Educational Service Centers (ESCs) serve the districts in their area by providing high quality professional development and support services (Ohio Educational Service Center Association [OESCA], 2009). This study focused on the professional development that was delivered by four ESCs in Ohio. Educators have options for the delivery of professional development, yet many choose ESCs as they serve as an effective and efficient delivery system for Ohio's school improvement efforts (Ohio Educational Service Center Association [OESCA], 2009).

The researcher analyzed the demographics and their professional development experiences to gain insight into how these varied backgrounds and experiences impacted their motivation to implement the professional development. Most of the teachers taught between 16 and 25 years ($n = 38, 45.0\%$). For fiscal year 2020, Ohio districts averaged 60.1% of their teachers as having 10 or more years of experience (Ohio Department of Education, 2021). Most of the respondents ($n = 45, 67.5\%$) in the survey have taught for 16 or more years, representing a similar comparison to the state data. Most teachers in the survey ($n = 60, 75.9\%$) taught students in an urban or suburban setting. Most students in Ohio, more than 50%, are enrolled in an urban or suburban setting. Each grade level is represented in this survey with most teachers falling into the elementary ($n = 26, 34.2\%$) or high school ($n = 26, 34.2\%$) categories.

Analysis of Research Question 1

Research Question 1: Is there a relationship between teachers' ratings of their school culture factors (collaborative leadership, teacher collaboration, unity of purpose,

professional development, collegial support, and learning partnership) and their motivation to integrate professional development into practice?

Together, the six factors of school culture (collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership) indicate a statistically significant effect on the EVC-PD motivation composite score with 21.9% of the variance predicted by the six factors. Six factors of school culture indicate an association with the EVC-PD motivation scale and three out of the six show a statistically significant positive association. Collaborative Leadership ($p = 0.024$), Unity of Purpose ($p = 0.036$), and Collegial Support ($p = 0.046$) demonstrated statistical significance where $p < 0.05$.

Collaborative Leadership

The results of this study revealed that when teachers identify collaborative behaviors in their leaders, they are more likely to be motivated to implement professional learning. There is a statistically significant positive correlation between collaborative leadership and the EVC-PD motivation score ($p = 0.024$).

The measures that defined collaborative leadership in this research outlined leaders' behaviors that valued teachers' input, trusted teachers' professional judgment, supported teachers' risk taking to enhance student achievement, and valued the sharing of ideas and instructional practices among staff (Gruenert & Whitaker, 2015). Questions measured teachers' reactions to statements such as, "leaders in our school facilitate teachers working together" and "teachers are involved in the decision-making process" (Gruenert & Whitaker, 2015, p. 82). Leaders create conditions that promote the success of what they are being asked to do (DuFour et al., 2016).

Risk functions as a roadblock to teachers' engaging in instructional change (LeFevre, 2013). When school leaders encourage discourse and value the contributions of teachers, they enhance a supportive learning environment for students and teachers (Deal & Peterson, 2013; Robinson, 2011; Starratt, 2013). Learning develops in social contexts and evolves through group participation and interaction (Gallucci, 2008). "Teaching requires technical skills but needs the inspiration that comes from talking through challenging problems" (Fisher et al., 2020, p. 22). People assist others in learning and teams or communities evolve through social processes (Higgins et al., 2011; Stein & Colburn, 2008). When school leaders implement practices that promote collaboration and trust, they enhance the likelihood of teachers implementing engaging, effective practices in their classrooms (Day et al., 2016; Li et al., 2016; Robinson, 2011; Tschannen-Moran, 2004).

Unity of Purpose

The results of this study revealed that when teachers identify unity of purpose in their schools, they are more likely to be motivated to implement professional development. There is a statistically significant positive association between unity of purpose and the EVC-PD motivation score ($p = 0.036$).

Unity of purpose measures the degree to which teachers collaborate to reach the school's mission (Gruenert & Valentine, 1998). Unity of purpose in this research indicates teachers' support of the school's mission and their belief that it provides a sense of direction for teachers (Gruenert & Whitaker, 2015). Questions measured teachers' reactions to statements about the performance of teachers in the school and their alignment to the school's mission (Gruenert & Whitaker, 2015).

When principals encourage cooperation and together the teachers feel the responsibility of student outcomes, they tend to develop increased belief in their ability to impact student learning (Bellibsaie & Liu, 2017). Hattie (2016) ranked collective efficacy, sharing in the belief that teachers' collective actions positively impact student outcomes, as the number one factor influencing student achievement (Donohoo, 2017). Efficacy fosters teachers' focus and understanding of their purpose (Donohoo, 2017). A shared vision aligns the staff's purpose and guides decisions and actions (Yukl, 2012). Without a strong educational vision and unity of purpose, school leaders do not motivate teachers' commitment to the pursuit of goals nor their capacity to change their practices.

Collegial Support

The results of this study revealed that when teachers identify collegial support in their schools, they are more likely to be motivated to implement professional development. There is a statistically significant positive relationship between collegial support and the EVC-PD motivation score ($p = 0.046$).

Collegial support measures the degree to which teachers work together effectively (Gruenert & Valentine, 1998). Collegial support in this research indicates "teachers trust each other, value each other's ideas, and assist each other as they work to further the school's goals" (Gruenert & Whitaker, 2015, p. 85). Questions measured teachers' reactions to statements that ask about teachers working cooperatively in groups (Gruenert & Whitaker, 2015).

Relational trust, anchored in social interactions, describes the extent that there is respect and understanding among individuals and groups (Bryk & Schneider, 2002). Marzano et al. (2018) reminded leaders that groups of people do not constitute a team;

leaders provide the support, structures, and systems that allow people in a group to establish trust and function as a team. Teams develop and strengthen relational trust through authentic problem solving rooted in improving the outcomes for students (Marzano et al., 2018). By working together and having open conversations, leaders empower shared ownership of ideas (Meyer et al., 2017; Robinson, 2013). Effective leaders promote dialogue and critical conversations; these conversations work best when leaders and the participants have an emotional investment having established trust and respect (Ryan, 2006).

Considerations of School Culture Factors During a Pandemic

Teachers' ratings of the six factors of school culture could have been influenced by the learning environment as a result of the COVID-19 pandemic. For many teachers, the survey window (August 2020 - January 2021) occurred while they were experiencing a variety of situations that were unlike a typical school year. Due to the COVID-19 pandemic, regulations prohibited large group gatherings and prompted remote learning with many teachers isolated within their homes or schools (Trikoilis & Papanastasiou, 2020). The Ohio Department of Education (2020c) outlined a variety of educational models (full return, mixed methods or blended learning, and completely remote) (2020). Districts and schools planned for various contingencies for the 2020-2021 school year with guidance to have the capacity to "operate in various modes at different times and sometimes, with minimum advance notice" (Ohio Department of Education, 2020c p. 4). With health and safety guidelines limiting the number of students and staff who can occupy a space at any given time, typical teacher collaboration or meetings for staff development needed to be carefully scheduled or facilitated remotely.

Considering the types of questions posed in the school culture survey, respondents could have been reacting to their current situation when completing the survey. The questions connected to one of the culture factors, teacher collaboration ($p = .969$), indicate teachers' ratings toward having opportunities for dialogue, planning, and working together. With the uncertainty and volatility of the school setting during a pandemic, teachers may have also been influenced when responding to the questions connected to the learning partnership factor ($p = .276$) of the school culture survey. These questions asked respondents to rate their perceptions of students' engagement and teacher-parent communication. Many factors contributed to a decline in student and family engagement, especially school closures and decreased access to meals, childcare, mental health services, and basic human connection (Tasayco, 2020). The pandemic has exacerbated the needs of students, especially those from marginalized, vulnerable student populations (Darling-Hammond et al., 2020). Teachers experienced frustration with the unpredictability associated with living through a pandemic. They had high degrees of concern for their students' and their own emotional well-being (Harris, 2020). The stressors and intensity of the pandemic most likely influenced the number of respondents to this survey as well as their perceptions of their school culture during the survey window.

Analysis of Research Question 2

Research Question 2: What effect do control variables, such as number of years teaching, participation with a colleague, school level, and duration of professional development, have on teachers' motivation to integrate professional development into practice?

The researcher investigated seven control variables that could influence teachers' implementation of professional development practices: years of teaching experience; typology of the district; school level; type of professional development; duration of the professional development; attendance with a colleague; and follow up with others at their schools. The level of follow up after the professional development had the greatest variance, with 14.7% of the percentage of variability explained in the dependent variable. The district typology (10.2%), years of teaching (5.3%), and the type of professional development (4%) indicated a lesser variance associated teachers' motivation to implement professional development.

The results suggest that following up with teachers or leaders after a professional development does have an effect on teachers' motivation to implement professional development. Specifically, the results suggest that when teachers collaborate and discuss the content of the professional development with teachers or leaders from their school in a session established by school or district leadership, they are motivated to implement professional development. Simply talking about the content does not appear to significantly increase teachers' motivation to implement professional development. The post hoc comparisons revealed that only one control variable suggests an association with an increase in teachers' average EVC-PD motivation score. The variable, teachers and leaders following up after the professional development, is associated with teachers' motivation to implement professional development.

Follow Up After the Professional Development

The largest variance in the outcome (EVC-PD motivation score) is attributed to the level of follow up after the professional development with 14.7% of the outcome

associated with how teachers responded to this question. The question asked teachers to describe follow up with teachers or administrators at their school following their participation in the professional development delivered by the ESC. Teachers selected from three responses. The response, following up through discussion and collaboration with teachers and/or leaders in a session established by leadership, generated the highest mean EVC-PD motivation score. The results support the importance of established reflection time to allow for application of professional learning. The application and reflection of new learning encourages a change in teachers' beliefs (Guskey, 2020). Leaders who provide support to teachers in their growth process and promote reflection of their professional learning will encourage greater change in teachers' instructional practices (Guskey, 2020).

Collaboration is critical; sociocultural learning theory provides a foundation for its relevance in making changes in teachers' practice. Relationships are strengthened through shared experiences and communities evolve through social processes (Higgins et al., 2012; Micheaux & Parvin, 2018). Interaction and dialogue promote individual learning and enhance a community of learners among the children as well as the adults in schools (Mandel, 2013; Micheaux & Parvin, 2018; Saphier et al., 2008).

Discussion

Educators participate in professional learning opportunities to impact school improvement, teacher quality, and student learning. This discussion focuses on the interconnectedness of school culture, constructs of leadership, teachers' professional learning, and student outcomes. School culture impacts how teachers respond to the professional development they attend. The Conceptual Model of School Leadership

Effects adapted from Newmann et al. (2000) and Hallinger (2016) outline the dynamic pathway between principal leadership, school capacity, teacher learning, changes in teacher practice, and student learning. The results of this research confirm the importance of the principal strengthening this pathway through critical constructs that galvanize collaborative, student-centered, collective leadership. This study revealed that the components of collaborative leadership are associated with a greater motivation for teachers to implement professional development and change their practice. The questions on the School Culture Survey (Gruenert & Valentine, 1998) connected to collaborative leadership asked teachers their perceptions about the degree to which leaders value teachers' ideas, facilitate teachers working together, and support risk-taking and innovation in teaching. Principals establish structures such as collaborative meetings and planning time that allow for reflection and discussion of strategies to enhance student learning. Leaders can facilitate conversations and guide follow-up discussions that enhance teachers' connection to professional development. Yukl (2012) outlined factors that impact group performance, "Determinants of Team Performance" (Yukl, 2012, p. 268), and provided insight into specific actions that influence individual and team outcomes. Several determinants illustrate how a school leader's involvement with teachers and their professional development can facilitate an environment that motivates teachers to engage in new practices. Principals establish systems and norms, communicate what is important, and develop a shared vision. Their actions and beliefs directly impact the conditions that contribute to a safe, collaborative learning environment. Through the development of "commitment to task objectives and strategies, internal organization and coordination, external coordination, and collective efficacy"

principals influence how teachers' interact and function within the school environment (Yukl, 2012, p. 268). Effective leaders seek to enhance the performance of their staff and can influence performance determinants through specific actions (Burke et al., 2006; Yukl, 2012). Leaders promote collaborative relationships by working directly with teachers and providing supportive and shared structures.

School leaders have the responsibility to establish and support teachers' professional learning in order to develop the knowledge, skills, and ideas that increase educator effectiveness (Learning Forward, 2011; Ohio Department of Education, 2015a). However, as this study indicates, not all leaders promote collaboration or follow up after professional development. Only 16% of the teachers in the study collaborated with teachers or leaders in a session established by district leaders after participating in professional development. Without an opportunity for established follow-up discussion, teachers are likely less motivated to implement their professional learning. An integral component of teachers' and principals' evaluation includes a professional growth plan that guides them in identifying areas of professional development to enhance their practice (Ohio Department of Education, 2020b). Completing the plan allows teachers to target areas to enhance their practice and target areas for improvement. The updated teacher evaluation model in Ohio, OTES 2.0, includes requirements for a principal's signature on each teachers' plan (Ohio Department of Education, 2020b). This gesture will not promote the level of collaboration needed to demonstrate involvement and commitment to teachers' professional growth. School leaders need to use this tool as an opportunity for reflection and build it into their interactions with teachers. When leaders promote collaborative systems that encourage professional discourse, they enhance

relationships and the acquisition of knowledge through authentic interactions. Principals establish relational trust through working with teachers, having open conversations, and creating shared ownership of ideas (Robinson, 2013, Meyer et al., 2017).

While improving teachers' knowledge through professional development has benefits, the positive outcomes will likely be increased when teachers collaborate and engage in practices to enhance their shared understanding and collective efficacy. School leaders can influence collective efficacy, the shared belief that members of a team are capable of carrying out its mission and achieving specific objectives (Bandura, 2000; Yukl, 2012). Principals who demonstrate instructional leadership practices can affect teachers' collective efficacy (Bellibas & Liu, 2015; Calik et al., 2012; Duyar et al., 2013). Efficacy helps to determine educators' focus and response to challenges; collective teacher efficacy is built through shared experiences and reflective practices that connect their collective actions to student outcomes (Donohoo, 2017). Leaders' behaviors that influence collective efficacy include demonstrating optimism and confidence; celebrating successes; encouraging collaboration to overcome obstacles; and encouraging reflection (Goddard et al., 2015; Yukl, 2012). Previous research confirms that collective efficacy and teachers working with a unity of purpose supports student achievement (Hattie, 2016; Louis & Robinson, 2012; Purty, 2019; Ramos et al., 2014).

School leaders who make clear connections to an organization's vision cause team members to support critical goals leading to increased commitment and better performance (Nowak, 2020; Yukl, 2012). When leaders communicate and provide feedback, they stimulate learning by allowing teachers to reflect, process, and apply their knowledge in their unique classroom setting (Burke et al., 2006; Nowak, 2020).

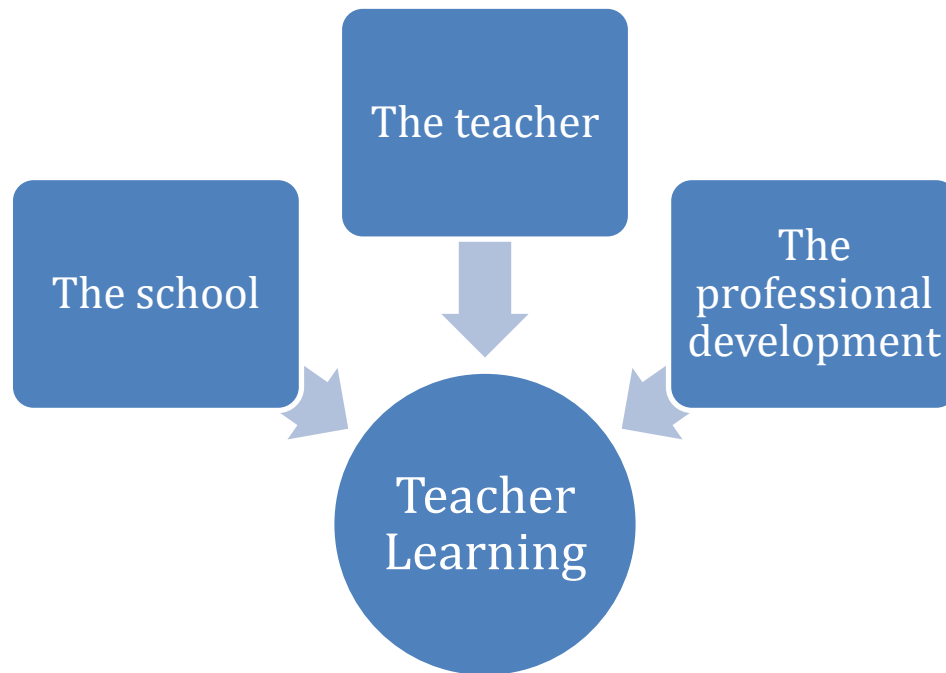
Leadership behaviors that structure tasks and goals empower team members and build trust (Nowak, 2020; Yukl, 2012). The findings of this study illustrate the importance of a unity of purpose, the degree to which teachers work toward a common vision or mission (Gruenert & Valentine, 1998). A clear vision guides and facilitates decisions and actions (Yukl, 2012). Unity of purpose goes beyond the clear articulation of the vision. The attitudes and beliefs of the staff have a deep impact on the culture of an organization; the mindset of the individuals influence the culture of the group (Matko & Takkacs, 2017). Admittedly, these internal layers of culture that encompass individuals' beliefs, assumptions, and values are not easy to manage (Schein, 2010). However, they affect everything within the organization. When school leaders invest in understanding and influencing the values and stories that bind people together, they will move the organization forward in collective improvement efforts (Deal & Peterson, 2013). The layers of cultural awareness

The principal influences many facets of school culture and the organization of the school. However, the reciprocal nature of the interactions between three subsystems (the teacher, the school, and the professional learning) coincide to influence teacher learning (Opfer & Pedder, 2011). Teacher learning is a complex system with many layers of systems and subsystems that through preconditions and catalysts work together to produce learning (Opfer & Pedder, 2011). The professional development activity may not effectively influence teachers who experience different interactions within their school system and their own experiences and beliefs. The school's norms, structures, and practices may constrain or enhance a teacher's actions and capacity to perform the objectives from the professional development (Opfer & Pedder, 2011).

Opfer and Pedder's (2011) model (Figure 5) of teacher learning encompasses the connection of individual teachers and groups of teachers as they work individually and collectively within their school to enhance their teaching practices to impact student learning. When the subsystems work together, a learning community evolves, and teachers are more likely to change their behavior as a result of the discussion and collaboration (Opfer & Pedder, 2011). Through involvement in the subsystems, teachers begin to experience a collective responsibility to change and sustain pedagogical practices that promote positive student outcomes.

Figure 5

Opfer and Pedder's (2011) Subsystems of Teacher Learning



Schools are complex with layers of organizational structures that work together to impact the culture and individual and group behaviors. To enhance teacher learning and student outcomes, principals need understanding of the many systems and complex interactions that affect teachers' willingness and motivation to implement new practices.

This study suggests that when a teacher or even a group of teachers attend a professional development opportunity, school leaders need to also consider the school culture and the individual teacher's opportunity to collaborate and reflect upon the learning.

The present study revealed a correlation between teachers identifying collaborative behaviors in their leaders and a motivation to implement professional development. The measures that defined collaborative leadership in this research identified leaders' behaviors that demonstrated trusting teachers' professional judgment, supporting teachers' risk taking to enhance student achievement, valuing teachers' input and ideas, and supporting teachers' dialogue about instructional practices (Gruenert & Whitaker, 2015). This study also showed a correlation between leaders establishing follow-up conversations and an increase in teachers' motivation to implement professional development. Investing time and energy into building relationships and establishing collaborative systems bring stakeholders together to encourage a positive culture (Yukl, 2012). A school's culture significantly impacts the capacity of teachers in that school to improve (Barth, 2013; Sapphier & King, 1985). This study affirms how the interchange between school leaders, school culture, and teachers' professional learning is a complex system where action and shifts in mindset in one area directly impacts constructs of that subsystem and influences components of other subsystems and the outcome as a whole.

Significance of the Study

This study attempted to address the gap in literature regarding factors of school culture and their influence on teachers' motivation to implement professional development. The research findings provided information significant to leadership

theory. This section provides practical implications for current and future school leaders as well as those who cultivate future leaders. Implications regarding school culture and how leadership enhances specific factors of culture will be of particular importance for leadership development programs.

The significance of this study can be considered through concepts of technical and adaptive leadership (Heifetz, 1994). When leaders approach situations from an adaptive lens, they respect that change takes time through transformations in beliefs and assumptions. Changes in a school's culture require a multi-layered approach with many factors contributing to the overall culture. When considering situations with a technical approach, leaders can facilitate change through adjusting procedures. Establishing follow up to professional development and scheduling time for collaboration allow teachers and leaders to connect and reflect on instructional practices. This study encourages leaders to recognize technical and adaptive challenges related to how a school's culture and structures impact teachers' motivation to implement professional development. With this approach and understanding, school leaders may more readily work collaboratively with their staff to impact student outcomes.

The results of this study proved to be significant for current and future school leaders. Historically, principals managed the general operations of the school and developed rules and procedures to direct the staff (Wahlstrom et al., 2010). School administrators' roles have shifted from a top-down managerial approach to being an instructional leader with a focus on teaching and learning in a collaborative culture. With principal standards connected to student learning and accountability measures in place to publicly report the achievement of students in the building, school leaders should focus

their attention on enhancing a culture that promotes the use of effective instructional practices and improving student outcomes. Improving schools requires that school leaders demonstrate expertise in instructional leadership (Blase & Blase, 1998; Gurley et al., 2015; Leithwood & Louis, 2012). Leithwood et al. (2004) indicated that instructional leaders must focus on (a) building and communicating a compelling vision; (b) developing shared goals; (c) engaging in effective planning and organization; (d) clarifying roles and objectives; (e) motivating and inspiring others; and (f) setting high performance expectations for all. Louis and Robinson's (2012) study confirmed the importance of developing leaders with a clear vision with an understanding of their teachers and families. Current and future school leaders need a strong educational vision. Without unity of purpose, leaders do not motivate teachers toward a commitment to the pursuit of goals nor toward their capacity to change their practices.

While the theory of instructional leadership has gained much positive attention, current and future leaders benefit from a comprehensive understanding of leadership theory and various, current approaches to leadership. Student-Centered Leadership as outlined by Robinson (2011) connects to learning and curriculum by making explicit associations between the principals' pedagogical understanding to effective leadership practices. Robinson (2013) outlined three capabilities for student-centered leadership: applying relevant knowledge, solving complex problems, and building relational trust (Robinson, 2013). The capabilities describe the aspirations of leaders and the collective capacity of a strong leadership team. While minimum standards are critical for a leader's success, it is unrealistic that one person alone can attain all three (Robinson, 2013). Student-centered leaders maintain continuous interactions with teachers with a focus on

improving learning. Effective leaders need to understand how children learn and apply this knowledge to enhancing instructional practices (Robinson, 2013). When collaborating with teachers a common language emerges. This connection, rooted in the sociocultural learning theory, explains how learning is a culturally embedded process in which discourse and authentic interaction play a role in shared meaning (Murphy et al., 2009). Armed with the knowledge of how students learn and instructional practices that support the learning, student-centered leaders can implement procedures that foster teacher collaboration, enhance a culture of learning, and are purposeful in enhancing students' academic growth.

The results of this study also proved to be significant for leadership training programs. The current Standards for Educational Leaders outlines the importance of equity and cultural responsiveness (National Policy Board for Educational Administration, 2015). As defined in Standard 7:

Effective leaders establish and sustain a professional culture of engagement and commitment to shared vision, goals, and objectives pertaining to the education of the whole child; high expectations for professional work; ethical and equitable practice; trust and open communication; collaboration, collective efficacy, and continuous individual and organizational learning and improvement. (National Policy Board for Educational Administration, 2015, p. 15)

Effective leaders promote a big picture understanding and believe that all individuals have something to contribute (Ryan, 2006; Senge, 2013). Collective leadership approaches rely on shared interests and the capacity to embrace differences and differ from a traditional, top-down approach that relies on power. Collective leadership as

explained by Leithwood and Jantzi (2012), “refers to the extent of influence that organizational members and stakeholders exert on decision in their schools,” (p. 11). Leaders need to develop and maintain connections with individuals by being responsive to their needs and attentive to their feelings (Yukl, 2012). Collective leadership values diverse ideas and emphasizes dialogue and collaboration (Grogan & Shakeshaft, 2013). Evidence from Leithwood and Jantzi’s research (2012) indicates collective leadership influences student achievement more than individual leadership, supporting distributed and shared leadership practices. Effective leaders value relationships; collective leaders enhance relationships and encourage change by validating the importance and contributions of all stakeholders. “Leaders who develop coherence around shared values are likely to deepen the sense of community within an organization, a sense of being in a relationship with others who are striving for the same goals” (Grogan & Shakeshaft, 2013, p. 115). Through diverse collective leadership, leaders consider all viewpoints and explore commonalities and differences. Effective school leaders empower others to have a voice and collaborate toward increasing student outcomes and establish a safe, inclusive learning environment. Leaders enhance relationships and encourage change by validating the importance and contributions of all stakeholders. By paying careful attention to others’ perspectives and considering factors larger than the symptoms of a problem, they are able to engage in powerful shifts in their understanding of an issue (Grogan & Shakeshaft, 2013).

Teachers and school leaders face many barriers to implementing practices that promote student achievement. Significant research has focused on the components of leadership and factors of school culture that indirectly impact student learning. Less

attention has been paid to the relationship between school culture and teachers' motivation to implement research-based instructional strategies. The significance of this research lies in the connection between leaders' role in school culture and teachers' motivation to implement strategies to affect student learning. Identifying factors that influence teachers' motivation to reflect upon classroom practices and implement research-based strategies will allow leaders to consider how to maximize their practices to promote enhanced student outcomes.

Recommendations for Future Research

The results of this study suggest different options for further research in understanding the relationship between school culture and teachers' motivation to implement professional development into practice. The snowball sampling method limited the researcher from being able to generalize the results to the population. Future research might consider a larger sample and include teachers from across the state to gather more respondents that are more representative of the population. Future research could consider identifying multicollinearity in the model. Multicollinearity makes it difficult to understand the individual importance of each predictor variable (Field, 2018). Future research could compute the variance inflation factor, which indicates if a predictor variable has a strong linear relationship with the other predictor variables (Field, 2018).

Future research could focus on how years at a particular school or being new to the profession could influence teachers' perceptions of their culture or professional development opportunities. The demographics of the sample population included teachers with a variety of years of experience from a range of teaching settings, from primary to high school. The researcher did not include any information that allowed for conclusions

to be drawn regarding how long the teacher was at the school or the number of years the current principal had been in place. Understanding and changing a school's culture takes time and requires a multi-layered approach. Leaders need time to develop relationships through authentic interactions. Immersion in the culture allows leaders to gain insight into current practices and promote connection through productive and positive interactions (Starratt, 2013). Therefore, the length of the teacher's or principal's time at a building may impact the results of the school culture survey. In Ohio, a growth model of evaluation supports teachers and principals who are new to the profession or need additional intervention to improve their practices. Principals and teachers complete professional growth plans that guide them in identifying areas of professional development to enhance their skills and practice (Ohio Department of Education, 2020b). Future research could consider the length of time in the profession as well as teachers' and principals' strengths and areas for growth. This study showed that collaborative leadership predicted a positive outcome to teachers' motivation to implement professional development. When teachers spend more time in the profession, they tend to experience more administrative changes. Future research could investigate how novice or developing educators' perception of their school culture is influenced by their amount of time in the profession. In addition, researchers could consider how the number of years with the same administration impacts teachers' perception of school culture or their motivation to implement professional development.

Another consideration for teachers' demographic information includes participants choice in attending the professional development. Future research could investigate if teachers' voluntary or required participation in the professional

development impacted their motivation to implement the professional learning. Gaining additional information of teachers' background or involvement in the professional development would allow for greater understanding of the participants and their reaction to the professional development.

Future research could consider using the school culture survey and EVC-PD scale along with qualitative approaches. This will allow for further insight into understanding teachers' motivation and their perceptions of school culture. Asking open-ended survey questions or conducting an interview would allow the researcher to understand the experiences of the participants. Qualitative researchers focus on the meaning that is attributed to the experience (Merriam & Tisdell, 2016). Another consideration for further research would be to consider a qualitative case study to investigate how the culture of different schools impacts teachers differently in their motivation to implement the same professional development. For example, if three teachers from three different schools attended the same professional development, the researcher could ascertain their respective EVC-PD motivation score. Then through a more in-depth follow up and interview, the researcher would gain insight into their experiences at their school along with a comprehensive understanding of the school's culture and how it supports teachers' professional growth.

Future research that focused on a particular type of professional development would allow researchers to gain insight into motivating factors behind the type and content of the professional development. In-depth consideration of factors such as the delivery method or specific content would allow for awareness of the types of professional development that promote greater motivation for implementation. Following

up with additional research regarding school culture or systems at the school that promote teachers' engagement in their growth would promote a collective approach to teacher learning. School leaders play a crucial role in fostering a collaborative, trusting environment that engages and supports teachers' professional growth. Any research that allows leaders to gain insight into how the culture impacts teachers' motivation to implement instructional practices to affect student growth would serve schools well.

Limitations

The study comprises several limitations. Threats may have been present due to the sampling method. The snowball sampling method did not allow the researcher to know the number of teachers who received a survey and therefore did not allow the researcher to comment on the response rate. This type of non-probability sampling method has low external validity because the researcher does not know if the population has been well represented (Trochim & Donnelly, 2008). In addition to an unknown response rate, the researcher could not control for the demographics that were represented in the data analysis. Although there were similarities to the state population, the sample did not fully represent the population of teachers in Ohio.

The researcher did not consider the participants' choice in attending the professional development. Without knowing if their attendance at the session(s) was voluntary or if it was suggested or required by an administrator, the researcher cannot fully consider the attitudes and assumptions that the adult learner brings to the professional learning. The teachers' background as well as their attitude toward the learning could have influenced their motivation to implement the professional development and their perception of their school culture.

The survey asked teachers to report on their level of motivation to implement professional development. The nine-item instrument was not administered to teachers immediately after they participated in professional development. Rather, it was administered in February 2021 to teachers who had participated in professional development between August 2020 and January 2021. Inviting teachers to participate in the study by responding to questions about an experience up to five months after the event created a limitation. The amount of time between the experience and the survey could have impacted teachers' honest and accurate reporting on their motivation to implement the professional development.

In addition to the amount of time passed, teachers were experiencing an unprecedented moment in their personal and professional lives with the COVID-19 pandemic. Educators indicated high degrees of concern for their students' and their own emotional well-being as a result of the frustration and unpredictability of living through a pandemic (Harris, 2020). The stressors and intensity of the pandemic most likely influenced the number of respondents to this survey as well as the perceptions of those who responded. Teachers may have deemed completing the survey as unimportant with the number of additional stressors presented during the survey window.

Conclusion

This study used a correlational, non-experimental design to understand the relationship between teachers' ratings of factors of school culture and their motivation to integrate professional development into practice. The design used a cross-sectional survey to study teachers who participated in professional development from ESCs in northeastern Ohio. The results show that together, the six factors of school culture

(collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership) indicate a statistically significant effect on the EVC-PD motivation composite score with 21.9% of the variance predicted by the six factors. The school culture plays a key role in school improvement efforts. The largest variance in the outcome (EVC-PD motivation score) is attributed to the level of follow up after the professional development with 14.7% of the outcome associated with how teachers responded to this question. School leaders establish systems of support that promote the success of teachers and students.

This research sought to gather information about how a school's culture impacts teachers' motivation to implement professional development into practice. These findings achieved their purpose by providing current and future school leaders with information about how specific aspects of school culture correlate with the outcomes tied with teachers' motivation to implement professional development. The research can be transferred to promote the importance of the constructs of leadership that impact school culture: vision, trust, power, and collective efficacy. These constructs illuminate the actions that lead to strengthening the pathways between leadership and change in teacher practice. School leaders' impact the school's culture, which impacts teachers' actions that directly affect students' learning. Creating conditions to help teachers succeed promotes positive outcomes in the classroom.

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APPENDICES

APPENDIX A
IRB APPROVAL LETTER



One University Plaza, Youngstown, Ohio 44555
www.yzu.edu

February 24, 2021

|

Dr. Jane Beese, Principal Investigator
Ms. Amy Cruse, Co-investigator
Department of Teacher Education and Leadership Studies
UNIVERSITY

RE: HSRC PROTOCOL NUMBER: 074-2021
TITLE: An Analysis of the Relationship between School Culture and Teachers' Professional Learning

Dear Dr. Beese and Ms. Cruse:

The Institutional Review Board has reviewed the abovementioned protocol and determined that it meets the expectations of DHHS 45 CFR 46.101(b)(3) and therefore is exempt from full committee review and oversight. Your project is approved.

Any changes in your research activity should be promptly reported to the Institutional Review Board and may not be initiated without IRB approval except where necessary to eliminate hazard to human subjects. Any unanticipated problems involving risks to subjects should also be promptly reported to the IRB.

The IRB would like to extend its best wishes to you in the conduct of this study.

Sincerely,

Dr. Severine Van Slambrouck
Director Research Services, Compliance and Initiatives
Authorized Institutional Official

SVS:cc

c: Dr. Marcia Matanin, Chair
Department of Teacher Education and Leadership Studies

Youngstown State University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, gender identity and/or expression, disability, age, religion or veteran/military status in its programs or activities. Please visit www.yzu.edu/ada-accessibility for contact information for persons designated to handle questions about this policy.



APPENDIX B

SCHOOL CULTURE SURVEY

School Culture Survey

Indicate the degree to which each statement describes conditions in your school.

Please use the following scale:

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1.	Teachers utilize professional networks to obtain information and resources for classroom instruction.	①	②	③	④	⑤
2.	Leaders value teachers' ideas.	①	②	③	④	⑤
3.	Teachers have opportunities for dialogue and planning across grades and subjects.	①	②	③	④	⑤
4.	Teachers trust each other.	①	②	③	④	⑤
5.	Teachers support the mission of the school.	①	②	③	④	⑤
6.	Teachers and parents have common expectations for student performance.	①	②	③	④	⑤
7.	Leaders in this school trust the professional judgments of teachers.	①	②	③	④	⑤
8.	Teachers spend considerable time planning together.	①	②	③	④	⑤
9.	Teachers regularly seek ideas from seminars, colleagues, and conferences.	①	②	③	④	⑤
10.	Teachers are willing to help out whenever there is a problem.	①	②	③	④	⑤
11.	Leaders take time to praise teachers that perform well.	①	②	③	④	⑤
12.	The school mission provides a clear sense of direction for teachers.	①	②	③	④	⑤
13.	Parents trust teachers' professional judgments.	①	②	③	④	⑤
14.	Teachers are involved in the decision-making process.	①	②	③	④	⑤
15.	Teachers take time to observe each other teaching.	①	②	③	④	⑤
16.	Professional development is valued by the faculty.	①	②	③	④	⑤
17.	Teachers' ideas are valued by other teachers.	①	②	③	④	⑤
18.	Leaders in our school facilitate teachers working together.	①	②	③	④	⑤
19.	Teachers understand the mission of the school.	①	②	③	④	⑤
20.	Teachers are kept informed on current issues in the school.	①	②	③	④	⑤

1=Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
21.	Teachers and parents communicate frequently about student performance.	①	②	③	④	⑤
22.	My involvement in policy or decision making is taken seriously.	①	②	③	④	⑤
23.	Teachers are generally aware of what other teachers are teaching.	①	②	③	④	⑤
24.	Teachers maintain a current knowledge base about the learning process.	①	②	③	④	⑤
25.	Teachers work cooperatively in groups.	①	②	③	④	⑤

26.	Teachers are rewarded for experimenting with new ideas and techniques.	①	②	③	④	⑤
27.	The school mission statement reflects the values of the community.	①	②	③	④	⑤
28.	Leaders support risk-taking and innovation in teaching.	①	②	③	④	⑤
29.	Teachers work together to develop and evaluate programs and projects.	①	②	③	④	⑤
30.	The faculty values school improvement.	①	②	③	④	⑤
31.	Teaching performance reflects the mission of the school.	①	②	③	④	⑤
32.	Administrators protect instruction and planning time.	①	②	③	④	⑤
33.	Teaching practice disagreements are voiced openly and discussed.	①	②	③	④	⑤
34.	Teachers are encouraged to share ideas.	①	②	③	④	⑤
35.	Students generally accept responsibility for their schooling, for example they engage mentally in class and complete homework assignments.	①	②	③	④	⑤

Steve Gruenert and Jerry Valentine, Middle Level Leadership Center, University of Missouri, 1998.
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School Culture Survey

Factor Definitions with Items Grouped by Factors

Collaborative Leadership: the degree to which school leaders establish and maintain collaborative relationships with school staff.

- 2. Leaders value teachers' ideas.
- 7. Leaders in this school trust the professional judgments of teachers.
- 11. Leaders take time to praise teachers that perform well.
- 14. Teachers are involved in the decision-making process.
- 18. Leaders in our school facilitate teachers working together.
- 20. Teachers are kept informed on current issues in the school.
- 22. My involvement in policy or decision making is taken seriously.
- 26. Teachers are rewarded for experimenting with new ideas and techniques.
- 28. Leaders support risk-taking and innovation in teaching.
- 32. Administrators protect instruction and planning time.
- 34. Teachers are encouraged to share ideas.

Teacher Collaboration: the degree to which teachers engage in constructive dialogue that furthers the educational vision of the school.

- 3. Teachers have opportunities for dialogue and planning across grades and subjects.
- 8. Teachers spend considerable time planning together.
- 15. Teachers take time to observe each other teaching.
- 23. Teachers are generally aware of what other teachers are teaching.
- 29. Teachers work together to develop and evaluate programs and projects.
- 33. Teaching practice disagreements are voiced openly and discussed.

Professional Development: the degree to which teachers value continuous personal development and school-wide improvement.

- 1. Teachers utilize professional networks to obtain information and resources for classroom instruction.
- 9. Teachers regularly seek ideas from seminars, colleagues, and conferences.

- 16. Professional development is valued by the faculty.
- 24. Teachers maintain a current knowledge base about the learning process.
- 30. The faculty values school improvement.

Unity of Purpose: the degree to which teachers work toward a common mission for the school.

- 5. Teachers support the mission of the school.
- 12. The school mission provides a clear sense of direction for teachers.
- 19. Teachers understand the mission of the school.
- 27. The school mission statement reflects the values of the community.
- 31. Teaching performance reflects the mission of the school.

Collegial Support: the degree to which teachers work together effectively.

- 4. Teachers trust each other.
- 10. Teachers are willing to help out whenever there is a problem.
- 17. Teachers' ideas are valued by other teachers.
- 25. Teachers work cooperatively in groups.

Learning Partnership: the degree to which teachers, parents, and the students work together for the common good of the student.

- 6. Teachers and parents have common expectations for student performance.
- 13. Parents trust teachers' professional judgments.
- 21. Teachers and parents communicate frequently about student performance.
- 35. Students generally accept responsibility for their schooling, for example they engage mentally in class and complete homework assignments.

The School Culture Survey was developed by Steve Gruenert and Jerry Valentine in the Middle Level Leadership Center at the University of Missouri. For more information or permission to use the instrument email Dr. Valentine at ValentineJ@missouri.edu.

APPENDIX C

EXPECTANCY-VALUE-COST IN PROFESSIONAL DEVELOPMENT

9-ITEM SHORT SCALE

(Osman & Warner, 2020)

Strongly Disagree

Disagree

Slightly Disagree

Slightly Agree

Agree

Strongly Agree

Expectancy for success

E.1 I am confident I can do what was asked of me in this professional development.

E.2 I believe I can be successful applying this training.

E.3 I know that I can effectively put into practice the things presented in this training.

Task value

V.1 I am excited to put this training into practice.

V.2 Participating in this training will help me in my job.

V.3 It is important to me to apply what I learned in this professional development.

Perceived cost

C.1 I have to give up too much to put this training into practice.

C.2 Applying this professional development will require too much effort.

C.3 Applying this training will be too stressful.

APPENDIX D

PERMISSION LETTER TO USE SURVEY

Re: SCS Availability



Steve Gruenert <Steve.Gruenert@indstate.edu>

Sun 11/29/2020 9:14 PM

To: Amy Cruse

Cc: Valentine, Jerry W. (Emeritus) <ValentineJ@missouri.edu>; Jane Beese



hello.

Thank you for completing our protocol for using the School Culture Survey. We get several requests weekly, from all over the world, thus, we try to keep it in good hands. When looking at the correlations be sure and use the six factors as there will not one culture score. You have permission to use the survey as you have indicated in your responses.

Please feel free to contact us regarding any additional information or issues related to school culture as you complete your work.

Good luck!

Steve Gruenert
Professor, Educational Leadership
Indiana State University
812-237-2906

From: Amy Cruse <acruse@student.ysu.edu>

Sent: Sunday, November 29, 2020 9:09 PM

To: Steve Gruenert <Steve.Gruenert@indstate.edu>

Cc: Valentine, Jerry W. (Emeritus) <ValentineJ@missouri.edu>; Jane Beese <jbeese@ysu.edu>

Subject: Re: SCS Availability

CAUTION: This message originated from outside of Indiana State University. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

Thank you for your quick response and detailed information regarding the use of the School Culture Survey. I included Dr. Jane Beese, my Dissertation Chair, on this reply. I attached my request for permission to use the School Culture Survey.

I look forward to hearing from you.

Thank you,
Amy Cruse

APPENDIX E

PERMISSION LETTER TO USE SCALE

RE: EVC-PD Scale Request



David Osman <dosman@gibsonconsult.com>

Mon 11/30/2020 12:42 PM

To: Amy Cruse



Hello Amy,

Yes, you have my permission to use the EVC_PD scale in this study and all future studies which you wish to conduct.

This looks like a very interesting study. I would be very interested to see the findings when they are ready!

Best of luck,

David

--

David J. Osman, Ph.D.

Gibson Consulting Group

512-685-2685

dosman@gibsonconsult.com

From: Amy Cruse <acruse@student.ysu.edu>

Sent: Monday, November 30, 2020 10:55 AM

To: David Osman <dosman@gibsonconsult.com>

Subject: EVC-PD Scale Request

Hello,

I hope this email finds you well. I am writing to request your permission to use the Expectancy-Value-Cost in Professional Development 9-item short scale in my doctoral study. With your permission, I would like to use the instrument in an online format to survey teachers in Northeast Ohio. Please see additional details below.

Thank you for your consideration.

Permission to use the School Culture Survey

Requested by: Amy Cruse, Doctoral Student

Full Name of Dissertation Chair and Graduate Advisor: Dr. Jane Beese

Name of University: Youngstown State University

Program of Study: Educational Administration

A brief explanation of the study design:

The purpose of the study is to determine if a relationship exists between school culture and the motivation to integrate professional development into practice for public school teachers in northeast Ohio. The study will employ a quantitative, correlational design using a cross-sectional survey to collect data about the attitudes, opinions, and practices of teachers who participated in professional development. To obtain the data to establish the variables, the researcher will conduct a non-experimental survey. The target population will be